

INDEX OF IMPACT ASSESSMENT REPORTS FOR FY 2025-26

Sr. No.	Thrust Area	CSR Project	Name of Independent Agency	Appendix No.
1.	Health & Hygiene	SAFAR - Truckers Well-being Interventions (Multiple Locations)	KPMG Assurance and Consulting Services LLP	A
2.		Static Health Clinics and Mobile Medical Units (Multiple Locations)		B
3.		Mobile Medical Units (Multiple Locations)		C
4.	Water Stewardship	Water For Livelihoods (Ankleshwar)		D
5.		Participatory Water Resource Management for Enhancing Livelihood in villages (Vizag)		E
6.		Water Resource Development Project (Patancheru)		F
7.		Nama Jal Bhadrata - Mass Scale Rejuvenation of Water Bodies (Mysuru)		G
8.		Integrated Watershed Management (Khandala)		H
9.		Integrated Water Resource Management in Mahadevimangalam cluster of villages (Sriperumbudur)		I
10.		Water Body Rejuvenation Project (Kasna)		J
11.		Canal Lining Project (Rohtak)		K
12.		Rejuvenation of water bodies (Khandala)		L
13.		Integrated Watershed Management (Khandala)		M
14.	Enhancing Vocational Skills	Beautiful Homes Academy	Sattva Consulting	N



Impact Assessment of Seven SAFAR Program

Asian Paints Limited (APL)

March 2026



Strictly Private and Confidential

Mr. Amit Kumar Singh

Vice-President, Corporate affairs & CSR

Asian Paints Limited

Mumbai, Maharashtra– 400055

India

24 March 2026

Subject: Final report for Impact assessment of CSR Projects

Dear Mr. Amit Kumar,

We appreciate the opportunity to assist Asian Paints Limited in providing **Impact assessment of CSR Projects** related services.

Please find enclosed our final-report, which has been prepared in accordance with the scope and terms stated in our engagement letter dated 3rd February 2026. With this deliverable, we have completed our obligations as stated in our engagement letter.

It has been our privilege to have this opportunity to work with you, and we look forward to continuing our relationship.

Yours sincerely,

Signed by:

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Jignesh Thakkar,

Partner- ESG, Head-Social

KPMG Assurance and Consulting Services LLP



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Document Classification: KPMG Confidential



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- *Impact assessment is limited to the projects allocated by Asian Paints Limited*
- *OECD DAC and SROI framework has been used in preparing the report as detailed herein. No professional assurance standards ex. ISAE, SSAE etc. have been applied while preparing this report and accordingly the rigors applicable under such standards are not applicable for the scope covered by our report.*
- *Procedures, analysis and recommendations, if any, are advisory in nature basis the information collected from various sources both publicly and those provided by the client.*
- *Our observations represent our understanding and interpretation of the facts based on reporting of beneficiaries and stakeholders.*
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- *Our work shall be limited to the specific procedures described in this Engagement Letter and shall be based only on the information and analysis of the data obtained through interviews of beneficiaries supported under the programme, selected as sample respondents and discussions with APL team and stakeholders of the programme. Accordingly, changes in circumstances or information available after the review could affect the findings outlined in our report.*
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- *By reading our report, the reader of the report shall be deemed to have accepted the terms mentioned hereinabove.*

Contents



Asian Paints Limited is a leading paint company in India, known for its innovative and high-quality products in decorative, industrial, and automotive coatings. The company emphasizes research and development, promote sustainability and actively engaged in CSR initiatives aligned with SDGs, focusing on Healthcare, Water Conservation, and Community development.

Through SAFAR Clinics, the project provides essential medical consultations, treatments, physiotherapy services, and preventive health education. It also focuses on raising awareness on sexually transmitted infections and offering counselling on substance-use challenges. KPMG has conducted an impact assessment to evaluate the effectiveness and outcomes of these interventions.

Cumulative SROI indicates a social return of INR 1.5 for every One Rupee invested in this project

Relevance

- The programme addressed the health needs of a predominantly middle-aged workforce, with most drivers between 26–45 years, a group with higher occupational health risks.
- The design matched the daily realities of drivers, as 95 percent reported that accessing services at the SAFAR clinic was very easy, showing strong relevance of the intervention
- The programme remained relevant to socio-economic conditions of the beneficiaries, especially since a substantial proportion of drivers belonged to low-income households (approx. 43 percent earning below ₹2.5 lakhs).

Coherence

- The programme supports Ayushman Bharat Health & Wellness Centers by strengthening preventive care, reflected in high participation (up to 97%), strong symptom awareness (95%), and notable improvements in well-being (over 90% across sites).
- The road-safety component supports India's National Road Safety Policy and the Motor Vehicles Amendment Act by promoting safer driving behaviors
- The programme impacts directly to (UNSDG) **Goal 3: GOOD HEALTH AND WELL-BEING**



Effectiveness

- Greater Awareness & Healthy behaviors ranging from 85 percent to 97 percent across sites, showing successful translation of communication efforts into practice
- IEC materials were perceived as highly effective.
- Respondents rating awareness on STIs and substance-use risks as effective to very effective, demonstrating strong message recall and clarity.

Efficiency

- 95 percent of respondents reported that it was very easy to access services at the SAFAR clinic/mobile unit
- A large share of drivers reported saving time and money, with strong results at Vizag (89 percent), Rohtak (88 percent), Sriperumbudur (88 percent), Mysuru (85 percent), and Khandala (84 percent), Kasna (60 percent)

Impact

- 73 percent experiencing better clarity of road signs
- 54 percent reporting reduced eye strain, indicating improved occupational safety conditions.
- The intervention led to clear improvements in overall well-being, such as 97 percent in Vizag, 96 percent in Patancheru, 93 percent in Mysuru, and 90 percent in Khandala.
- 47 percent of beneficiaries indicated that the training helped prevent accidents.

INR 1,046 annually saved by reducing wage loss (through quicker, local treatment)

INR 1,222 saved on medicines per year by each HH

Sustainability

- The programme helped normalise preventive care, something drivers rarely engaged in before the intervention indicating lasting behavior change that can sustain beyond project cycles.
- Consistent demand for core services (medicines, screening, OPD) and strong well-being improvements across locations position the model for long-term acceptance and continued engagement.



Executive Summary

About the Project

Impact Assessment Framework

Project Outcomes Basis OECD-DAC Framework

Detailed Findings and Analysis

Summary of Testimonials

Measuring the Social Return

Way Forward

Context

- ❖ **Primary Healthcare Access:** Ensuring access to primary healthcare and diagnostic services for the trucker community
- ❖ **Awareness and Referrals:** Increasing awareness of government schemes and facilitating referrals for advanced treatments.
- ❖ The intervention has demonstrated encouraging outcomes, including improved health-seeking behavior, greater awareness of preventive care, and positive shifts in driving practices and nutrition choices. SAFAR Seven continues to strengthen access to reliable, convenient healthcare for truck drivers, contributing to safer roads and healthier logistics communities.

Spent in
the year
FY 2023-24

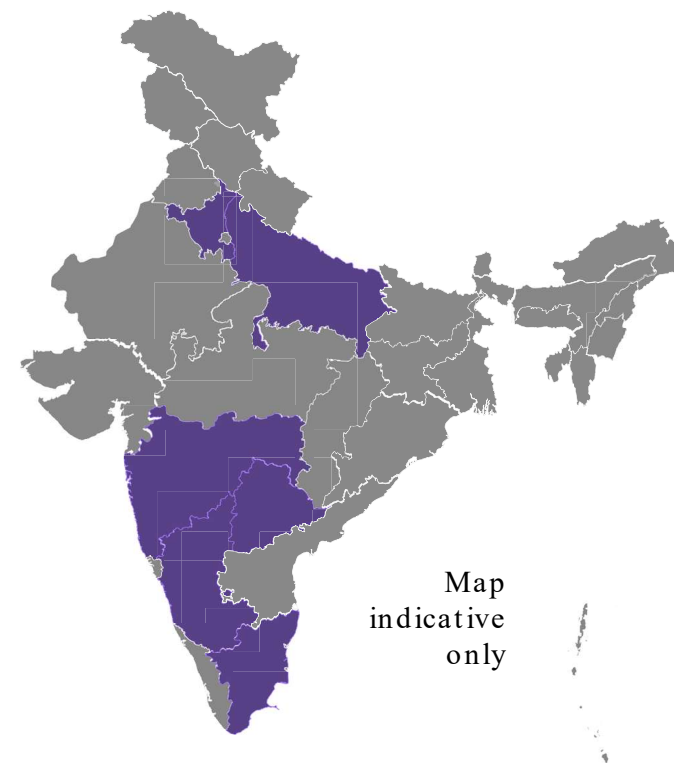
₹3.30 Cr

APL's Support

- ❖ As a part of CSR initiative, APL supported Child Survival India in augmenting and strengthen the primary health care facilities for the for the trucker community operating near the company's manufacturing plants
- ❖ The initiative provides truck drivers with timely medical consultations, essential treatments, diagnostics, physiotherapy, and preventive health education.

CSR Policy Alignment

The relief support project is in line with CSR Policy of the Company and aligned to Schedule VII of section 135 of the Companies Act, 2013



[Executive Summary](#)

[About the Project](#)

[Impact Assessment Framework](#)

[Project Outcomes Basis OECD-DAC Framework](#)

[Detailed Findings and Analysis](#)

[Summary of Testimonials](#)

[Measuring the Social Return](#)

[Way Forward](#)

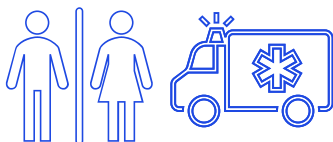
Objective

- ❖ To assess the overall impact of the Seven SAFAR services.
- ❖ To assess the health scenario of the area, quality of medical consultation, medicine distribution and referral system.
- ❖ To understand the cost-benefit availed by patients due to SAFAR intervention
- ❖ To assess the impact of the awareness and counselling sessions.

Methodology

- ❖ **Primary Research** – The team interacted with **100** primary beneficiaries of the project, and stakeholders/ project implementation partners (community leaders, village volunteers, and project implementation staff).
- ❖ **Secondary Research** – Documents like annual reports submitted by HelpAge India to Asian Paints Limited.

Location wise sample



Locations	Sample
• Pattancheru, Telangana	80
• Vizag, Andhra Pradesh	72
• Sriperumbudur, Tamil Nadu	41
• Mysore, Karnataka	40



Locations	Sample
• Rohtak, Haryana	24
• Kasna, Uttar Pradesh	10
• Khandala, Maharashtra	31



Assessment insights

Legend (% of the respondents experiencing positive outcome /impact)

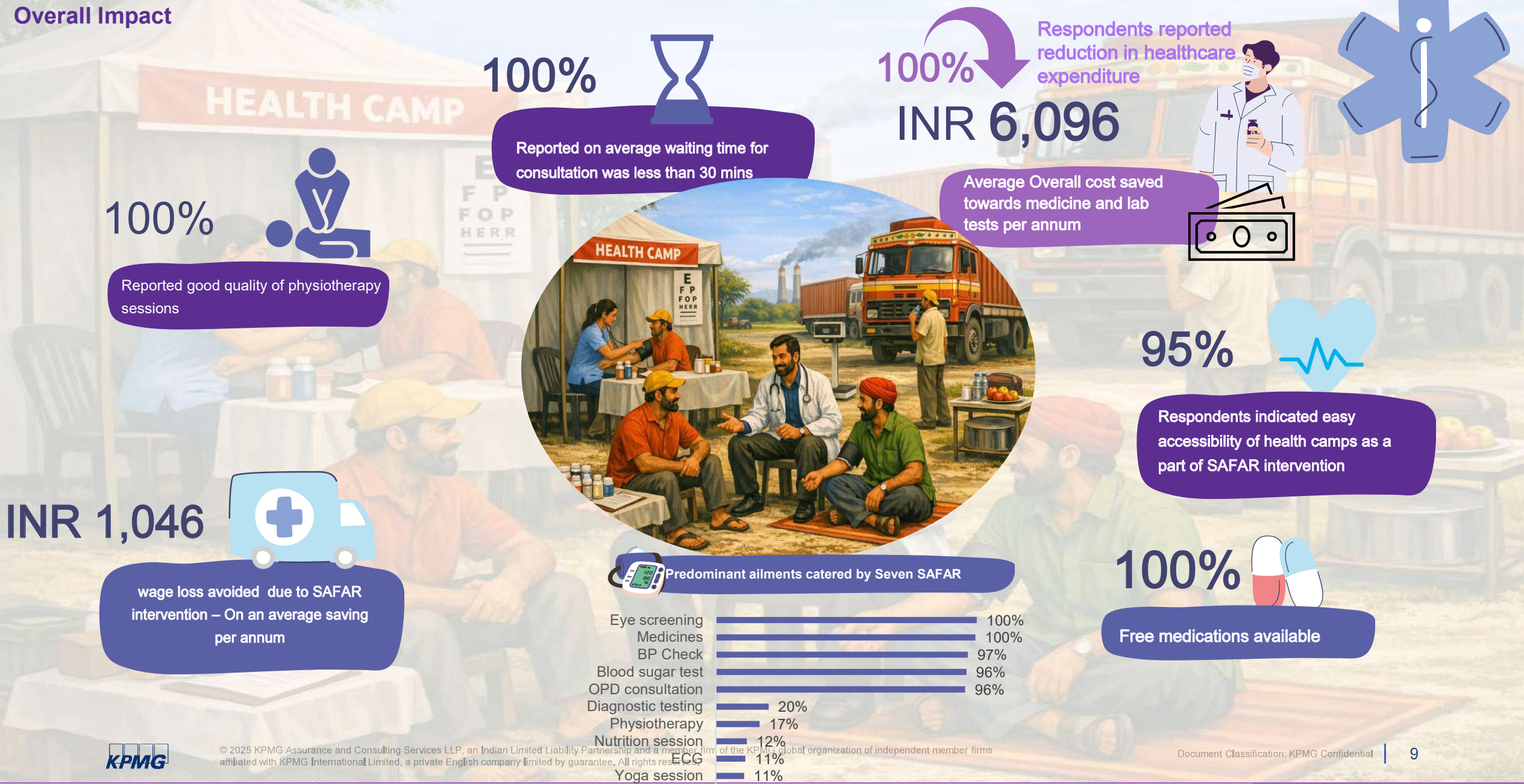
75% and above	50% to 75%	Less than 50%
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Impact Areas	Key Indicators			
Health	Quality of physiotherapy sessions	Quality of consultation	Dietary practices	Use of ergonomic aids
Accessibility of healthcare service	Ease of location	Availability of basic healthcare facilities	Waiting time for consultation (Less than 30 minutes)	Regular presence at the respective location
Improved Awareness	Effectiveness of IEC materials	Awareness on preventive care, STIs, AIDS	Behavior change	Participation in preventive care
Cost Saving	Cost saved on medicines/year	Cost saved on lab test/year	Cost saved by reduced wage loss	
Other impacts*	Ease of driving	Better clarity of road signs	Reduced eye strain	



Impact Assessment of Seven SAFAR initiative

Overall Impact



Impact Assessment of Seven SAFAR Initiative

SRol Snapshot

Cumulative SRol

1.5



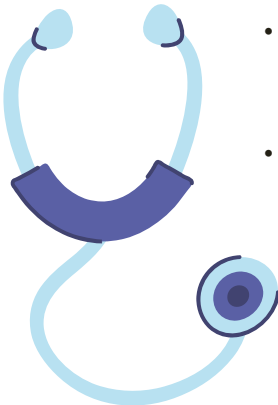
Total Impact Value generated

INR 8.25 Cr

Investment
INR 3,30,84,508



Net Present Value
INR 4,94,71,425



- High delta: only ~10% of outcomes possible without the project intervention
- Hight attribution of this project 85% (average)
- Low negative impact: Project created only ~10% displacement

SRol Highlights

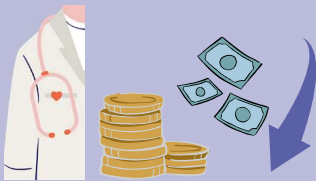
Outcomes



Reduction in no. of consultations with private doctor
INR 65,55,546



Reduced medication expenditure
INR 41,95,549



Reduction in daily wage loss due to visits to doctor and hospital
INR 2,14,27,425



Reduced out of pocket expenditure on health due to early diagnosis
INR 36,57,019



Improved participation in preventive care services
INR 2,16,71,270



Improved physical comfort & Reduces occupational fatigue
INR 16,80,001

Key suggestions

Project Design	Project Scale-up	Sustainability
• The program has already encouraged a shift from curative to preventive health-seeking behavior. To sustain and deepen this shift, SAFAR can introduce scheduled preventive health days, quarterly screening camps, and personalised follow-up reminders. These structured touchpoints will help drivers maintain continuity in care despite their mobile schedules and further improve early detection of chronic illnesses. • Develop compact yet high-impact Healthy Highway Zones around SAFAR clinics, providing shade, seating, clean drinking water, and hygiene facilities. These spaces enhance comfort for truckers, foster a sense of value, and help increase clinic footfall.	• Strengthen nutrition support by offering Healthy Driver Kits and partnering with highway eateries to set up SAFAR Healthy Meal Corners. Improving access to nutritious food can help reduce common issues like hypertension, diabetes, and fatigue among mobile workers. • Drivers often delay their home visits and rarely prioritize their families' health. Conducting annual family health camps and enabling teleconsultations for families can significantly improve trust and strengthen community-based outcomes.	• A low-cost subscription or membership model can be introduced to promote long-term sustainability of the programme. Under this approach, drivers may voluntarily contribute a small monthly or annual fee, keeping the amount nominal so that affordability is not compromised. Even a minimal contribution helps build a sense of ownership among beneficiaries, encouraging them to remain engaged with the services. At the same time, it creates a modest but steady revenue stream that can support basic operational costs



Impact Assessment of Health Unit Programs implemented by Piramal Swasthya

Asian Paints Limited (APL)

March 2026





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- In accordance with its policy, KPMG advises that neither it nor any of its partner, director or employee undertakes any responsibility arising in any way whatsoever, to any person other than Client in respect of the matters dealt with in this report, including any errors or omissions therein, arising through negligence or otherwise, howsoever caused.
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Table of Contents

Disclaimer	2
1 Setting the context	4
2 About the project	5
3 Impact Assessment Framework	6
4 Overall Impact findings	7
5 Overall SRoI Snapshot	8
6 Impact on Health care project	9
7 Key Suggestions	15



Setting the context

Global and India context

Global Context



Community health systems are under pressure due to growing populations, migration, unequal healthcare access, and climate-linked disease risks.



Weak primary care, shortages of health workers, limited preventive services, and low emergency preparedness contribute to preventable illnesses and higher costs.



Integrated and community-focused health models with trained frontline workers, Static care, and upgraded infrastructure are becoming essential for resilience and development.



India's Context

- India faces rising health demands amid environmental stress and existing structural gaps.
- Many primary centres experience heavy patient loads and lack adequate staff or equipment. Rural–urban divides restrict access to diagnostics and specialist care.
- Lifestyle diseases and maternal and child health concerns remain high, and awareness about nutrition and preventive care is limited. Climate events and recurring outbreaks increase the need for outreach and Static health services.
- Government programmes are expanding access, yet partnerships with private organisations can strengthen technology, community interventions, and last-mile delivery.

About the project

APL's Support

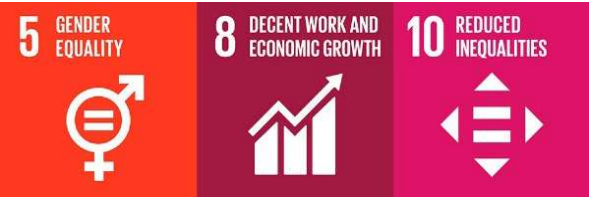
- ❖ As a part of CSR initiative, APL supported Piramal Swasthya in augmenting and strengthen the health care infrastructure with SHU/MHU support in project villages.
- ❖ Infrastructural and medical equipment support in the form of Static health clinic, Doctor, Nurse, Medicines, Diagnostic lab-testing equipment etc.

Spent in
the year
FY 2023-24

₹3.10 Cr

* As per the data provided by APL

UNSDG Mapping

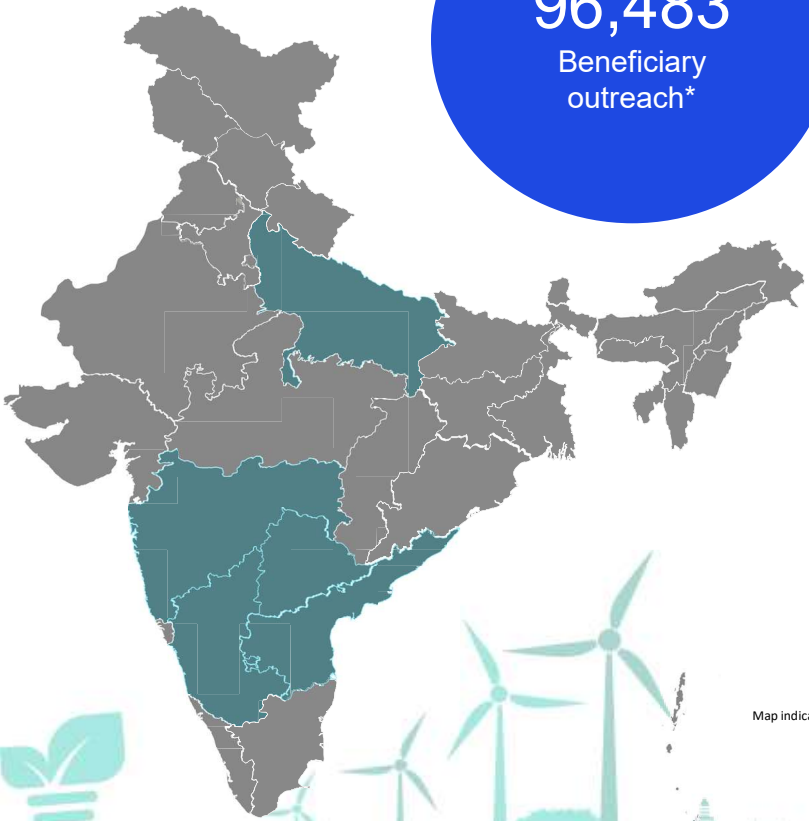


CSR Policy Alignment

The relief support project is in line with CSR Policy of the Company and aligned to Schedule VII of section 135 of the Companies Act, 2013

Project Outreach

96,483
Beneficiary
outreach*



Impact Assessment Framework

Objective

- ❖ To assess the overall impact of the SHU/MHU services.
- ❖ To assess the health scenario of the area, quality of medical consultation, medicine distribution and referral system.
- ❖ To understand the cost-benefit availed by patients due to SHU/SHU services.
- ❖ To assess the impact of the counselling sessions
- ❖ To assess the other unintended and extended impact areas apart from SHU/MHU services

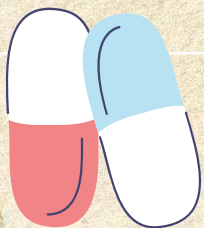
Methodology

- ❖ **Primary Research** – The team interacted with 100 primary beneficiaries at each project location, along with key stakeholders and implementation partners, including community leaders, village volunteers, and project staff.
- ❖ **Secondary Research** – Documents like annual reports and MIS reports submitted by Piramal Swasthya to Asian Paints Limited.

Location wise sampling

#	Location	Sample
1	Kasna	100
2	Mysore	100
3	Khandala	100
4	Vizag	100
5	Patancheru	100

Overall Impact



₹6,367

Wage loss avoided due to SHU/MHU intervention – On an average saving per household per annum

95%

On average less than 1KM distance traveled to get medical care from SHU/MHU

Reduction in health expenditure

62%

₹23,998

Average cost saved on medical expenditure per household per annum

97%

Prefer MHU/SHU as their primary healthcare facility

“ Because of regular check-ups and clear advice at the SHU, I feel more in control of my health. I take my medicines on time and feel stronger than before. The SHU has made me confident about looking after myself.”

- A beneficiary from Kasna

100%

Respondents reported free medications are available.



Overall SROI Snapshot



SROI Ratio

2.9

For every INR 1 invested the program has generated a social impact of INR 2.9



INR 2,13,59,707
Total cost saved on Medicines



INR 2,56,80,795
Total cost saved on daily wage



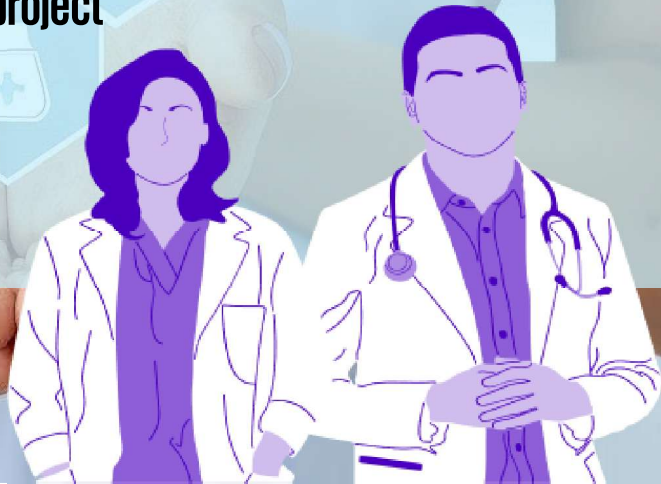
INR 2,30,29,190
Total cost saved on consultation



INR 9,84,29,972
Total present value of social value created

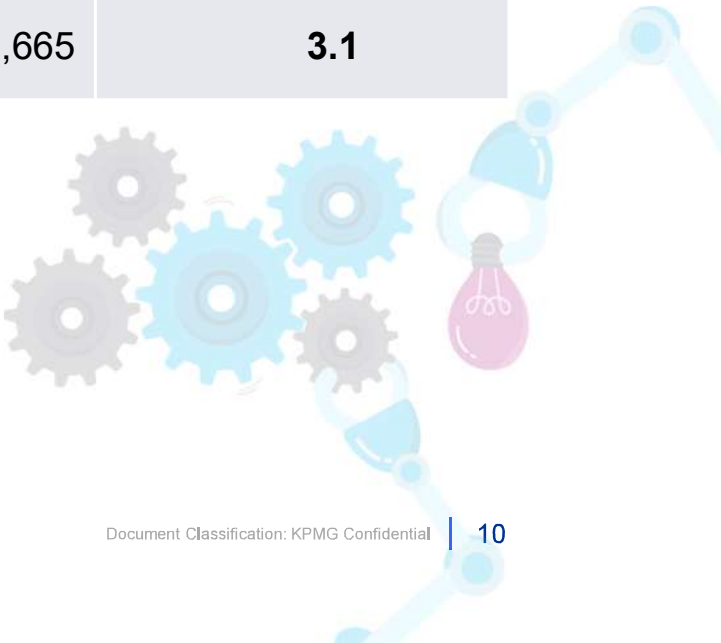


INR 3,34,99,259
Total invested in the project



SRoI-Impact of Healthcare Project

#	State	Location	NPV Social Value	Project cost	SRoI Ratio
1	Uttar Pradesh	Kasna	1,81,05,252	62,28,617	2.90
2	Maharashtra	Khandala	1,82,09,977	61,80,340	2.90
3	Karnataka	Mysuru	16,269,022	58,12,350	2.80
4	Telangana	Patancheru	1,77,22,871	60,74,287	2.90
5	Andra Pradesh	Vizag	2,81,22,849	9,203,665	3.1



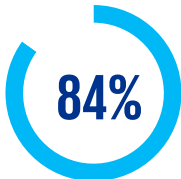
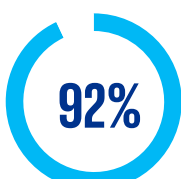
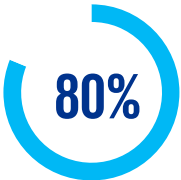
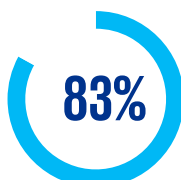
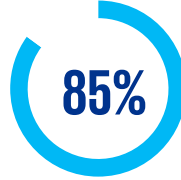
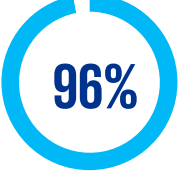
Impact of Healthcare Project

Impact / Outcome	SHU and MHU				
	Kasna	Khandala	Mysuru	Patancheru	Vizag
People availing primary health care services through SHUs/MHU	95%	94%	98%	98%	98%
Expert consultation observed for non-communicable diseases	96%	100%	90%	88%	88%
Expert consultation observed for communicable diseases	100%	100%	92%	96%	97%

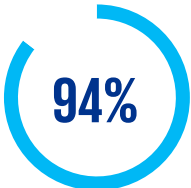
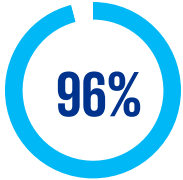
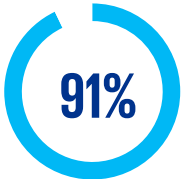
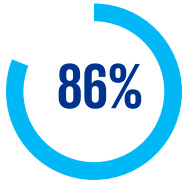
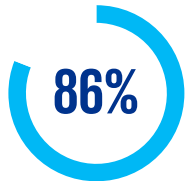
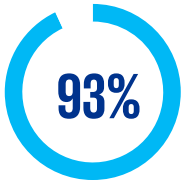
Impact of Healthcare Project

					SHU and MHU
Impact / Outcome	Kasna	Khandala	Mysuru	Patancheru	Vizag
Support received related to seasonal healthcare diseases	100%	96%	100%	100%	100%
Provision of free medical consultation and medication	100%	100%	100%	100%	100%
Quality consultation by medical practitioner & briefing on dosage by the pharmacist	94%	98%	80%	80%	94%

Impact of Healthcare Project

					SHU and MHU
Impact / Outcome	Kasna	Khandala	Mysuru	Patancheru	Vizag
Proper follow-up after consultation at SHU/MHU	 90%	 100%	 84%	 94%	 92%
Receiving NCD medication on timely basis	 80%	 83%	 95%	 90%	 85%
Reduction in time to access medical facility	 93%	 96%	 90%	 94%	 95%

Impact of Healthcare Project

					SHU and MHU
Impact / Outcome	Kasna	Khandala	Mysuru	Patancheru	Vizag
Knowledge enhancement in terms of health, hygiene & sanitation	 94%	 96%	 94%	 90%	 91%
Reduction in Wage Loss and Family's (HH) Healthcare Service Expenses	 92%	 94%	 86%	 86%	 93%

Impact on Women Beneficiaries



Improved health literacy and decision-making confidence

94%



Walking distance meant women could visit the MHU/SHU without an escort

90%



Free medicines removed the worry of asking for money at home

80%



Friendly staff made it easy for women to share health concerns openly

92%



Lesser waiting time at the MHU/SHU eased women's worries about leaving their caregiving duties behind

94%



Success story

Rajesh (name changed), a 41-year-old labourer from Kherli village in Uttar Pradesh, struggled with a spreading skin problem for almost two years. The dark patches on his leg caused discomfort and affected his ability to work. He visited several doctors and even tried medicines from local shops, but nothing improved his condition. Because of his limited income and family responsibilities, he could not afford further specialist treatment and was forced to stop seeking care.

One day, he overheard a conversation about the APL 'Nirog' Clinic, where medical consultations and medicines were available free of cost. This gave him hope, and he visited the clinic in August 2023. After registration and vitals check, the doctor examined his skin condition, prescribed medicines, and guided him on hygiene and lifestyle practices. He was advised to return for regular follow-ups. Rajesh attended 7–8 follow-up visits, during which the clinic team monitored his progress and adjusted the treatment when needed. With consistent medical attention, proper hygiene practices, and free access to medicines, his skin condition steadily improved. This brought major relief after years of discomfort.



Rajesh's skin condition

Feeling healthy again and grateful for the respectful, supportive care he received, Bhupendra now actively tells people in his village about the APL 'Nirog' Clinic. He encourages others, especially those who cannot afford private treatment to visit the clinic and benefit from its free, quality healthcare services.

Success story

Mrs. Shanthi from Yechagahalli village in Mysore, a daily-wage worker supporting her family amid financial instability, struggled for weeks with severe weakness, giddiness, and fatigue. Frequent visits to a private clinic offered no improvement and added financial strain. During a community meeting, she learned about the free APL 'Nirog' Clinic run by Asian Paints and Piramal Swasthya.

At her first visit in 2020, she was registered through the AMRIT app and diagnosed with anemia, with her hemoglobin at 8.0 g/dl. The doctor provided medication, supplements, and clear nutritional guidance. Through consistent follow-ups, counseling, and free treatment across nearly three years and more than 26 visits, her hemoglobin improved to 12 g/dl. By October 2023, she regained strength, could walk comfortably, and manage daily tasks without fatigue. The clinic's continuous and holistic care restored her health, confidence, and dignity.



Through consistent follow-ups, counseling, and free treatment across nearly three years and more than 26 visits, her hemoglobin improved to 12 g/dl. By October 2023, she regained strength, could walk comfortably, and manage daily tasks without fatigue. The clinic's continuous and holistic care restored her health, confidence, and dignity.

A glimpse of the community mobiliser counselling Shanthi at the APL clinic

Success story

Mr. Abdul (name changed), a 45-year-old rice-mill operator from Sainagar Colony and the sole earner for his family, had been living with uncontrolled hypertension and joint pain for over five years. Unaware of better options, he depended on local rural practitioners, while his wife also managed hypertension and diabetes. In 2021, friends told him about the APL 'Nirog' Clinic. After his first visit and registration through the AMRIT app, he received counselling but was reluctant to change his habits. A severe hypertension episode in December 2022, leading to costly hospitalization, became a wake-up call.



Mr. Abdul getting his BP checked at the Patancheru SHU

Following renewed counselling, Abdul committed to lifestyle changes and a healthier diet. With regular follow-ups at the clinic, his blood pressure improved significantly—from 162/102 mmHg to 126/86 mmHg by the end of 2023. Encouraged by his recovery, he began motivating other families to visit the clinic and fully embraced his treatment plan, experiencing marked improvement in his overall health.

Success story

Mrs. Vishalakshi (name changed), a 57-year-old fisherwoman from Pudimadaka village in Vizag, has always worked hard to support her family and manage her home. Over time, she began experiencing excessive thirst, constant tiredness, and emotional stress, which made it difficult for her to continue her daily routine. She was mentally disturbed and did not know how to get proper help. One day, through local announcements and awareness activities in her village, she heard about the APL 'Nirog' Clinic in Vizag, which provides free healthcare services to people who cannot afford regular treatment. This information brought her hope, and she decided to visit the clinic. At the clinic, it was found that her blood sugar was extremely high at 284 mg/dl. The doctor gave her medicines and advised her to come regularly for follow-ups.

Vishalakshi took the doctor's advice seriously and began visiting the clinic regularly. The medical team continuously monitored her condition, guided her, and motivated her to take her medicines without fail. Because of her initial fear and misconceptions, it was difficult for her to follow treatment at first, but with patient counselling from the staff, she slowly gained confidence. After nearly 18 visits and steady support, she started feeling better both physically and mentally. Her blood sugar levels dropped from 284 mg/dl (recorded at the first time she visited the SHU) to 116 mg/dl. Today, she is able to manage her health much better and lead a more stable life. Her husband, Apparao, feels relieved and grateful, saying that the APL 'Nirog' Clinic has saved them both time and money by offering free check-ups, medicines, and tests

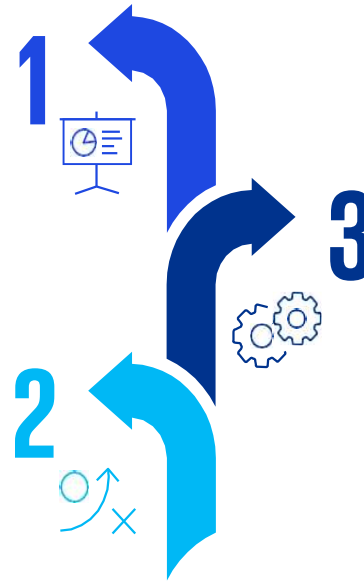
Key Suggestions

Strengthen referral pathways & system integration

- Formalise linkages with nearby PHCs/CHCs for advanced diagnostics, maternal care, and emergency referrals.
- Maintain a referral register to track patient movement and outcomes.
- Coordinate with district health teams to align SHU data with public health reporting.

Strengthen Preventive and Community-Centric Health Interventions

- Expand preventive services such as ANC/PNC check-ups, anaemia screening, nutrition education, and hygiene awareness to reduce long-term health risks.
- Introduce simple health education modules focused on diet, physical activity, self-monitoring of BP and sugar, and recognising early warning signs.
- Engage community volunteers, ASHA and Anganwadi workers to support behaviour change, increase service uptake, and ensure door-to-door outreach.



Enhance infrastructure and accessibility of SHU

- Ensure infrastructure upgrades such as ramps, handrails, shaded waiting areas, and accessible entry points for elderly, PWD, and wheelchair users.
- Improve signage, patient flow, and facility display boards to make health units more user-friendly for low-literacy populations.
- Maintain uninterrupted availability of essential medicines, diagnostics, and consumables through better inventory planning.



Impact Assessment of Mobile Health Unit Programs

Asian Paints Limited (APL)

March 2026





Strictly Private and Confidential

Mr. Amit Kumar Singh
Vice-President, Corporate affairs & CSR
Asian Paints Limited
Mumbai, Maharashtra– 400055
India
24 March 2026

Subject: Final report for Impact assessment of CSR Projects

Dear Mr. Amit Kumar,

We appreciate the opportunity to assist Asian Paints Limited in providing **Impact assessment of CSR Projects** related services.

Please find enclosed our final-report, which has been prepared in accordance with the scope and terms stated in our engagement letter dated 3rd February 2026. With this deliverable, we have completed our obligations as stated in our engagement letter.

It has been our privilege to have this opportunity to work with you, and we look forward to continuing our relationship.

Yours sincerely,

Signed by:

67B595C4-050448E
Jignesh Thakkar,

Partner- ESG, Head-Social

KPMG Assurance and Consulting Services LLP





Disclaimer

- Our report shall be prepared solely for Asian Paints Limited KPMG does not accept or assume any liability, responsibility, or duty of care for any use of or reliance on this report by anyone, other than our Client, to the extent agreed in the Agreement.
- Impact assessment is limited to the projects allocated by Asian Paints Limited
- OECD DAC and SROI framework has been used in preparing the report as detailed herein. No professional assurance standards ex. ISAE, SSAE etc. have been applied while preparing this report and accordingly the rigors applicable under such standards are not applicable for the scope covered by our report.
- Procedures, analysis and recommendations, if any, are advisory in nature basis the information collected from various sources both publicly and those provided by the client.
- Our observations represent our understanding and interpretation of the facts based on reporting of beneficiaries and stakeholders.
- Our report, by its very nature, may involve numerous assumptions, inherent risks, and uncertainties, both general and specific. The conclusions drawn shall be based on the information available with us at the time of preparing the report.
- We shall not perform an audit and shall not express an opinion or any other form of assurance. Further, comments in our report are not and shall not be intended, nor should they be interpreted to be legal advice or opinion. Client shall be fully and solely responsible for applying independent judgment, with respect to the findings included in the report, to make appropriate decisions in relation to future course of action, if any. We shall not take responsibility for the consequences resulting from decisions based on information included in the report.
- While information obtained from the public domain or external sources has not been verified for authenticity, accuracy, or completeness, we have obtained information, as far as possible, from sources generally considered to be reliable. However, it must be noted that some of these websites/third party sources may not be updated regularly. We assume no responsibility for the reliability and credibility of such information.
- Our work shall be limited to the specific procedures described in this Engagement Letter and shall be based only on the information and analysis of the data obtained through interviews of beneficiaries supported under the programme, selected as sample respondents and discussions with [Client] team and stakeholders of the programme. Accordingly, changes in circumstances or information available after the review could affect the findings outlined in our report.
- In no circumstances shall we be liable, for any loss or damage, of whatsoever nature, arising from information material to our work being withheld or concealed from us or misrepresented to us by any person to whom we make information requests.
- In accordance with its policy, KPMG advises that neither it nor any of its partner, director or employee undertakes any responsibility arising in any way whatsoever, to any person other than Client in respect of the matters dealt with in this report, including any errors or omissions therein, arising through negligence or otherwise, howsoever caused.
- In connection with our report or any part thereof, KPMG does not owe duty of care (whether in contract or in tort or under statute or otherwise) to any person or party to whom the report is circulated to and KPMG shall not be liable to any party who uses or relies on this report. KPMG thus disclaims all responsibility or liability for any costs, damages, losses, liabilities, expenses incurred by such third party arising out of or in connection with the report or any part thereof.
- By reading our report, the reader of the report shall be deemed to have accepted the terms mentioned hereinabove.

Table of Contents

Disclaimer	2
1 Setting the context	4
2 About the project	5
3 Impact Assessment Framework	6
4 Overall Impact findings	7
5 Overall SRol Snapshot	8
6 Impact on Health care project	9
7 Comparison with previous assessment	14
7 Key Suggestions	15



Setting the context

Global and India context

Global Context



Community health systems are under pressure due to growing populations, migration, unequal healthcare access, and climate-linked disease risks.



Weak primary care, shortages of health workers, limited preventive services, and low emergency preparedness contribute to preventable illnesses and higher costs.



Integrated and community-focused health models with trained frontline workers, mobile care, and upgraded infrastructure are becoming essential for resilience and development.

India's Context



- India faces rising health demands amid environmental stress and existing structural gaps.
- Many primary centres experience heavy patient loads and lack adequate staff or equipment. Rural–urban divides restrict access to diagnostics and specialist care.
- Lifestyle diseases and maternal and child health concerns remain high, and awareness about nutrition and preventive care is limited. Climate events and recurring outbreaks increase the need for outreach and mobile health services.
- Government programmes are expanding access, yet partnerships with private organisations can strengthen technology, community interventions, and last-mile delivery.

About the project

APL's Support

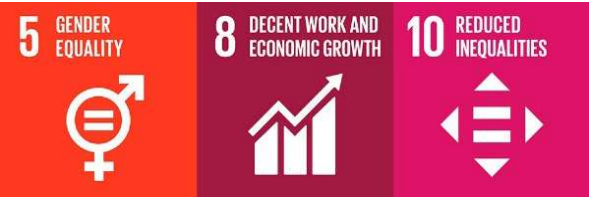
- ❖ As a part of CSR initiative, APL supported HelpAge India in augmenting and strengthen the health care infrastructure with MHU/SHU support in project villages.
- ❖ Infrastructural and medical equipment support in the form of Mobile-Medical van, Static Health Unit, Doctor, Driver, Nurse, Medicines, Diagnostic equipment etc.

Spent in
the year
FY 2023-24

₹2.3 Cr

* As per the data provided by APL

UNSDG Mapping

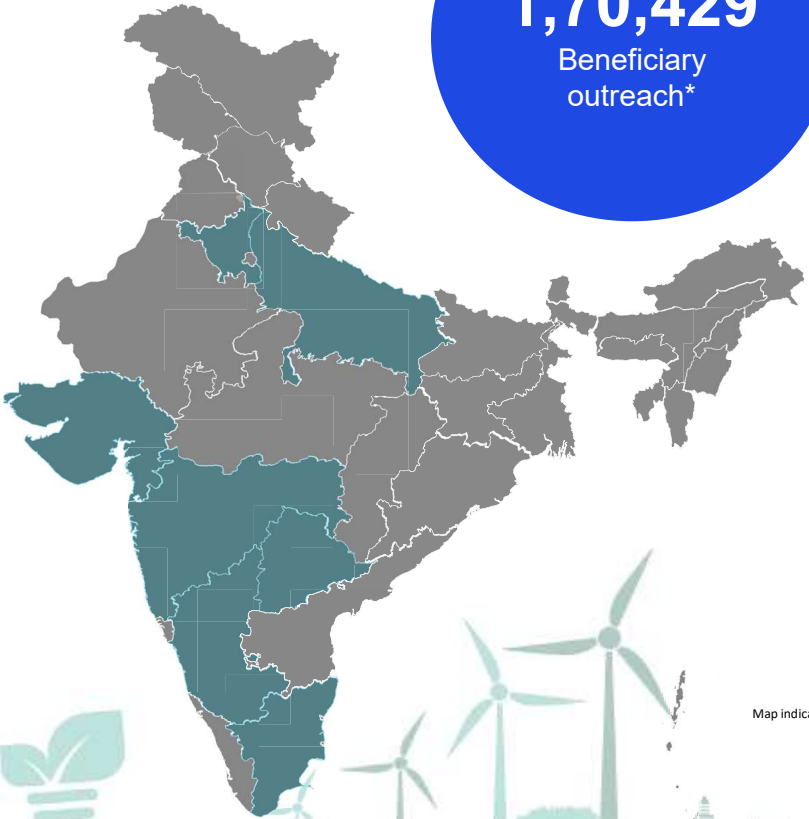


CSR Policy Alignment

The relief support project is in line with CSR Policy of the Company and aligned to Schedule VII of section 135 of the Companies Act, 2013

Project Outreach

1,70,429
Beneficiary
outreach*



Map indicative only



Impact Assessment Framework

Objective

- ❖ To assess the overall impact of the MHU/SHU services.
- ❖ To assess the health scenario of the area, quality of medical consultation, medicine distribution and referral system.
- ❖ To understand the cost-benefit availed by patients due to MHU/SHU services.
- ❖ To assess the impact of the counselling sessions
- ❖ To assess the other unintended and extended impact areas apart from MHU/SHU services

Methodology

- ❖ **Primary Research** – The team interacted with ~100 primary beneficiaries at each project location, along with key stakeholders and implementation partners, including community leaders, village volunteers, and project staff.
- ❖ **Secondary Research** – Documents like annual reports and MIS reports submitted by HelpAge India to Asian Paints Limited.

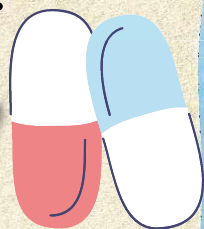
Location wise sampling

#	Location	Sample
1	Ankleshwar	100
2	Kasna	100
3	Khandala	100
4	Mysuru	100
5	Patancheru	100
6	Rohtak	100
7	Sriperumbudur	100
8	Cuddalore	100



Overall Impact

What has the project achieved?



₹7,437

Wage loss avoided due to MHU intervention – On an average saving per household per annum

99%

Travelled less than 1KM distance to access medical care from SHU/MHU

Reduction in health expenditure

65%



₹24,444

Average cost saved on medical expenditure per household per annum

94%

Prefer MHU/SHU as their primary healthcare facility



96%

Respondents reported free medications were availed

"The Mobile Health Unit has been a great support for our village. Many households depend on it for regular medical guidance, especially the elderly and those with chronic conditions. It has reduced out-of-pocket expenses and improved the overall well-being of our community."

— PRI Member, Mysuru



Overall SRoI Snapshot



SRoI Ratio

4.9

For every INR 1 invested
the program has
generated a social
impact of INR 4.9



Top 3 outcomes

INR 3,51,33,146

Total cost saved on daily wage



INR 3,22,76,370

Total cost saved on medicines



INR 1,94,19,726

Total cost saved on consultation

INR 11,48,40,445

Total value of social impact created

INR 2,34,97,062

Total invested in the project

SRoI-Impact of Healthcare Project

#	State	Location	NPV Social Value	Project cost	SRoI Ratio
1	Gujarat	Ankleshwar	1,19,24,832	31,31,260	3.8
2	Uttar Pradesh	Kasna	1,51,78,738	32,09,796	4.7
3	Maharashtra	Khandala	1,56,79,914	26,43,564	5.9
4	Karnataka	Mysuru	1,16,21,572	32,88,340	3.5
5	Telangana	Patancheru	1,28,19,672	26,70,360	4.8
6	Haryana	Rohtak	1,61,73,673	31,81,798	5.1
7	Tamil Nadu	Sriperumbudur	1,92,22,062	35,56,300	5.4
8	Tamil Nadu	Cuddalore	1,22,19,981	18,15,644	6.7

SHU

Impact of Healthcare Project

Impact / Outcome	Kasna	Rohtak	Ankleshwar	Khandala	Mysuru	Patancheru	Cuddalore	Sriperumbudur
People availing primary health care services through MHUs and SHU	94%	92%	94%	90%	94%	100%	96%	96%
Expert consultation observed for non-communicable diseases	76%	76%	84%	87%	84%	100%	90%	80%
Expert consultation observed for communicable diseases	94%	94%	90%	98%	86%	88%	92%	82%

SHU

Impact of Healthcare Project

Impact / Outcome	Kasna	Rohtak	Ankleshwar	Khandala	Mysuru	Patancheru	Cuddalore	Sriperumbudur
Support received related to seasonal healthcare diseases	86%	86%	100%	100%	96%	100%	100%	100%
Provision of free medical consultation and medication	96%	98%	100%	100%	100%	100%	100%	100%
Quality of consultation by medical practitioner & briefing on dosage	92%	90%	86%	89%	78%	100%	92%	96%

SHU

Impact of Healthcare Project

Impact / Outcome	Kasna	Rohtak	Ankleshwar	Khandala	Mysuru	Patancheru	Cuddalore	Sriperumbudur
Proper follow-up after consultation at MHU/SHU	84%	88%	100%	96%	86%	98%	92%	100%
Preference of healthcare facility to MHU/SHU	80%	100%	94%	89%	96%	100%	94%	92%
Reduction in time to access medical facility	96%	96%	92%	98%	82%	100%	92%	96%

SHU

Impact of Healthcare Project

Impact / Outcome	Kasna	Rohtak	Ankleshwar	Khandala	Mysuru	Patancheru	Cuddalore	Sriperumbudur
Knowledge enhancement in terms of health, hygiene & sanitation	80%	70%	87%	70%	88%	72%	90%	84%
Reduction in Wage Loss and HH Healthcare Expenses	90%	100%	83%	96%	72%	94%	87%	89%

Comparison with previous assessment

#	Parameter	2023-24*	2024-25	2025-26
1	Consultation for a communicable disease	81%	99%	89%
2	Consultation for a non -communicable disease	79%	97%	84%
3	Free Consultation	66%	100%	96%
4	Free Medication	83%	98%	95%
5	Effective Consultation	78.9%	100%	89%
6	Less Travel Distance	69.2%	100%	94%
7	Waiting Time	40.6%	100%	94%

* As per the data provided by APL



Impact on Women beneficiaries



Improved health literacy and decision-making confidence

94%



Walking distance meant women could visit the MHU/SHU without an escort

92%



MHU/SHU inclusive for elderly women, women with disabilities, and minority groups

90%



Friendly staff made it easy for women to share health concerns openly

89%



Lesser time at the MHU/SHU eased women's worries about leaving their caregiving duties behind

85%



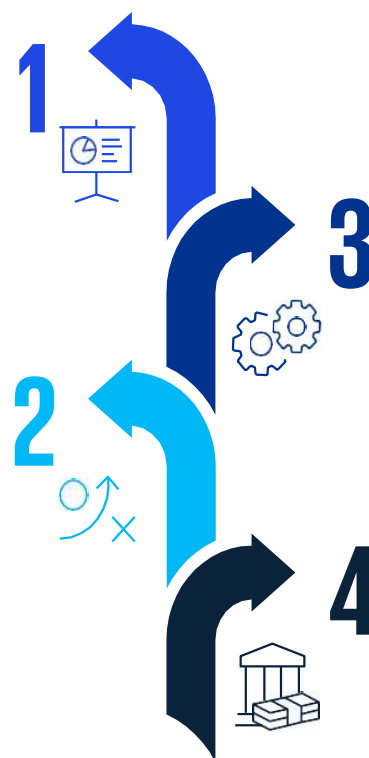
Key Suggestions

Strengthen medicine supply chain & inventory stability

- Maintain buffer stocks for NCD medication, especially BP, diabetes, arthritis, and pain medicines.
- Implement simple stock dashboards to prevent stock-outs for NCD medicines

Expand preventive and NCD-Focused interventions

- Develop a strengthened NCD management protocol including scheduled follow-ups, medicine refill calendars, and lifestyle counselling (aligned with high hypertension prevalence of 83%).
- Introduce targeted health education modules on diet, physical activity, and self-monitoring.
- Leverage community volunteers and ASHA workers to support long-term behaviour change.



Build capacity of frontline workforce

- Provide periodic training for MHU doctors, paramedics, and drivers on geriatric care, chronic disease management, triage, and counselling.
- Strengthen ASHA/Anganwadi involvement, given that 80% of beneficiaries learned about the MHU through them.
- Enable tech-based support for record-keeping, medicine inventory, and case monitoring.

Run a Monthly NCD Specialty Clinic Day

- A dedicated weekly NCD Specialty Clinic Day transforms the MHU into a focused chronic-care center, offering full NCD diagnostics such as BP, sugar, HbA1c, lipid profile, ECG, and kidney screening. It brings specialist support through tele-consultations, provides monthly medication review, and delivers personalised counselling on diet, exercise, and lifestyle.
- This structured approach ensures consistent monitoring, early detection of complications, and higher treatment adherence for hypertension, diabetes, and other NCDs.

Field Snapshots





Impact Assessment of Water for Livelihood Project- Dediapada, Narmada District, Gujarat

March 2026
Asian Paints Limited



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Strictly Private and Confidential

Mr. Amit Kumar Singh
Vice-President, Corporate affairs & CSR
Asian Paints Limited
Mumbai, Maharashtra– 400055
India

24 March 2026

Subject: Final report for Impact assessment of CSR Projects

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Yours sincerely

Signed by:


Jignesh Thakkar

**Partner,
KPMG Assurance and Consulting Services LLP**

Contents

1. Executive summary	6
2. INTRODUCTION	10
2.1. Background	10
1.2 Asian Paint Limited	11
1.3 About the Study	11
1.4 About the project	12
1.5 About implementing partner	13
3. APPROACH AND METHODOLOGY	16
2.1 Our Approach	16
2.1.1 OECD-DAC	16
2.1.2 Social Return on Investment (SROI)	18
2.2 Detailed Methodology	20
3. ANALYSIS AND FINDINGS	28
3.1 Demography of Respondents	28
3.2 Water Harvesting Structure	31
3.2.1. Impact on availability of water	31
3.2.2. Impact on Livestock	33
3.2.3. Impact on farming practices	33
3.2.4. Impact on drinking water	36
3.3 Water Governance	36
3.3.1 Member of WUA Group	36
3.3.2 Separate fund for O&M	37
3.4 Agriculture and Livelihood	37
3.4.1 Impact on agricultural land	37
3.4.2 Impact on Mode of Irrigation	37
3.4.3 Impact on Source of Irrigation	38
3.4.4 Impact on Cost of Cultivation	38
3.4.5 Impact on Agricultural Income	39
3.4.5 Brand Recall	39
3.5 Environment	40
3.5.1 Impact on environment	40
3.5.2 Impact on land cover	41
3.5.3 Impact on soil and water quality	42
3.5.4 Impact on water quality	44

List of Abbreviations

APL	Asian Paints Limited	mS/cm	Milli Siemens per centimeters
ATMA	Agricultural Technology Management Agency	MSP	Minimum Support Price
BCM	Billion Cubic Meters	NITI	National Institution for Transforming India
BIS	Bureau of Indian Standards	NMAET	National Mission on Agricultural Extension and Technology
BOD	Biochemical Oxygen Demand	NPV	Net Present Value
CGWB	Central Ground Water Board	O&M	Operation and Maintenance
CGWB	Central Ground Water Board	OC	Organic Carbon
CPCB	Central Pollution Control Board	OECD-DAC	Organisation for Economic Co-operation and Development-Development Assistance Committee
CSR	Corporate Social Responsibility	OOPE	Out-of-Pocket Expenditure
CWC	Central Water Commission	pH	Potential of Hydrogen
dS/m	Deci Siemens per Meter	ppm	Parts Per Million
EC	Electrical Conductivity	PRI	Panchayati Raj Institution
FGD	Focus Group Discussion	qtl	quintal
FIG/FI	Farmer Interest Group	RFP	Request for Proposal
FPO	Farmer Producer Organization	ROI	Return on Investment
ft	Feet	SAR	Sodium Adsorption Ratio
HH	Household	SDG	Sustainable Development Goal
INR	Indian Rupees	SEZ	Special Economic Zone
IS	Indian Standards	SHG	Self-Help Group
kg/ha	Kilogram per Hectare	SRI	System of Rice Intensification
kg/ha	Kilograms per hectare	SRoI	Social Return on Investment
KII	Key Informant Interview	TDS	Total Dissolved Solids
KPI	Key Performance Indicator	TOC	Theory of Change
LPCD	Litres Per Capita Per Day	tons/acre	Tons per acre
me/L	Milliequivalents per litre	VI	Village Institution
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act	WASH	Water, Sanitation and Hygiene
MIDC	Maharashtra Industrial Development Corporation	WHS	Water Harvesting Structure
MPCE	Monthly Per Capita Expenditure	WUA	Water User Association

3.6 Case Study.....	45
5 MEASURING THE SOCIAL RETURN.....	47
5.1 Evidencing Outcomes.....	47
5.2 Establishing Impacts.....	48
5.3 Calculating Impact	49
5.4 SROI Results	50
6 Way Forward	53
7 Annexure	54

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01

Executive Summary

1. Executive summary

Asian Paints Limited has imbibed the philosophy of transformation in its DNA and has consistently reinvented the industry. Aligning with this approach, the company's CSR efforts are focused on achieving holistic and sustainable community development. There is a strong emphasis on fostering robust trust-based relationships with communities located in the vicinity of its plants and people in the unorganized sector. These inclusive development initiatives are concentrated on health and hygiene, water conservation, skill development, and disaster management.

Water scarcity remains one of India's most pressing development challenges, driven by increasing demand, climate variability, groundwater depletion, and the high dependence of rural livelihoods on agriculture. Hot semi-arid regions such as Dediapada block in Narmada district face recurring water shortages, seasonal irrigation stress, and declining groundwater tables.

In response, Asian Paints engaged in a holistic approach through its "Water for Livelihoods" program in the Dediapada block of Narmada district in Gujarat. This initiative addresses water scarcity, soil conservation, and natural resource management, aiming to ensure sustainable and resilient water resources for the country

KPMG conducted the impact assessment for interventions undertaken in FY 2023–24, drawing on the Organisation for Economic Co-operation and Development-Development Assistance Committee (OECD-DAC) evaluation criteria and the Social Return on Investment (SROI) framework to measure outcomes. A mixed-method approach was adopted, combining quantitative data analysis with qualitative insights to ensure a holistic evaluation. The objective of this impact study is to assess the impact of water stewardship activities, with a specific focus on access and availability of surface and ground water, potable water, agricultural practices, farmer livelihoods, and governance. The mixed-methods approach involved quantitative and qualitative research methodologies, utilizing primary and secondary data collection. The analysis of quantitative data was corroborated with anecdotal evidence from qualitative responses and observed through the lens of the SROI and (OECD-DAC) frameworks. During the survey, respondents from five villages in Narmada district of Gujarat, including farmers, community members, PRI members, and Water User Association members, were interviewed for data collection.

The sample size included respondents from diverse economic backgrounds, small to marginal farmers, and those whose primary source of income is agriculture. More than half of the respondents were between the age group of 40 to 60 years and 40 percent respondents had no formal education.

This report also estimates the impacts felt by the beneficiaries and wider community as a result of the APL programme, by valuing them in monetary terms. We have examined the social impact of the APL programme arising from its CSR project during the FY 2023-24. To achieve this, we have estimated the Social return on investment (SROI) generated by the programme by comparing the financial costs of the programme to the monetary value of the impacts it creates among its stakeholders. Whilst many of the impacts arose during the period of analysis, impacts would also occur or continue the effect for some time in future. Thus, forecasting methods have been used.

We estimate that for every INR 1 spent by the water for livelihood programme, INR 4.09 in social value has been generated through a mixture of socio-economic wellbeing among the beneficiaries.

Key Output Numbers

0.32 lakh KL
Water potential created

1249
Beneficiary Outreach

Key highlights from the impact assessment study



Improved water availability for irrigation purpose post-monsoon

The availability of water has extended for 3 to 4 months for 61% of households, while the remaining 39% reported availability for 2 to 3 months, indicating enhanced water retention and sustained irrigation support beyond the monsoon season.



Increase in water level in wells/borewells

The improvement in water levels is most evident during the summer season (around 44 percent), followed by winter (about 27 percent), while the monsoon period shows a moderate increase of nearly 25 percent. This seasonal delta indicates stronger groundwater recharge and better retention during the summer season.



Improved yield of primary crop

Prior to the intervention, farmers largely cultivated only paddy, however, improved irrigation access has enabled them to introduce maize as an additional crop, indicating enhanced productivity and diversification of cropping practices. Post-intervention, 100 percent of beneficiaries reported improved yields of the primary crop, paddy, reflecting better water availability.



Improved water accessibility for irrigation

Compared to the pre-intervention scenario, there is a clear shift from fair and bad access towards good access, reflecting more reliable and timely availability of water for irrigation purposes. This intervention has caused reduced water-related constraints for 36 percent farmers who earlier faced inaccessibility of water.



Improved water availability for irrigation purpose post-monsoon

82 percent reported adopting multi-season cropping, driven by improved availability of water. Prior to the intervention, farming was largely limited to the Kharif season and depended on rain-fed conditions. The improved water availability has enabled farmers to extend cultivation beyond the monsoon, supporting more consistent agricultural activity across seasons.



Increase in income from agriculture pre and post intervention

The agricultural income across the intervention villages shows a consistent upward movement. Prior to the intervention, income levels were comparatively modest and reflective of limited cropping intensity and seasonal dependency. Following the intervention, all villages recorded a substantial rise in agricultural income, with increases ranging from 33 percent to 44 percent.



Key findings as per the IRECS framework

Findings basis IRECS framework

I- Impact

- The project has created a meaningful and sustained impact on local water security and agricultural livelihoods. Improved surface water retention and consistent groundwater recharge have strengthened water availability beyond the monsoon period, reducing seasonal stress. These improvements have enabled more reliable irrigation, supported better crop performance, and encouraged diversification and continuity in farming practices.

R- Relevance

- 90 percent farmers rely on rain fed agriculture
- Interventions such as check dams, desilting, contour trenches, and soil moisture conservation directly respond to the community's need for reliable water access and improved irrigation.

E- Efficiency

- Project completed within set timelines

C- Coherence

- Project Alignment with National Priorities-
- Directly converges with Jal Shakti Abhiyan and 'Catch
- the Rain' campaign of Ministry of Jal Shakti.
- Project align with the SDGs as mentioned, SDGs 6, SDG 1, SDG 2, SDG 15

S-Sustainability

- 100% of respondents shared good ratings for the project. Positive impact on biodiversity due to increased surface water availability
- Currently, Water User Associations are formed, however they do not maintain an operational and maintenance funds. Therefore, user group shall be strengthened for the better and assured maintenance of the Water Harvesting Structure

SROI – Results

1

Net Present Impact Value

INR 7,12,38,496

2

SROI Ratio

1:4.09

3

Sensitivity range

₹ 3.25 and INR 4.36 per ₹1 invested.

Observations:

The assessment indicates that Water User Associations (WUAs) exist in the project villages; however, many of them remain inactive or loosely structured, limiting their effectiveness in water management. It was also observed that farmers located at higher elevations or farther from check dams benefit less, resulting in uneven access to irrigational water. Additionally, the absence of a dedicated Operation and Maintenance (O&M) fund poses a challenge to the long-term upkeep of water harvesting structures. These factors together highlight gaps in institutional functioning, equitable water distribution, and sustainability mechanisms.

Recommendations:

To ensure long-term sustainability and equitable benefits from the interventions, focused efforts are required to strengthen community-level water governance. Water User Associations should be revitalised through regular mobilisation, capacity-building, and clear definition of roles and responsibilities. Periodic handholding support and structured meetings can help members gradually take ownership of water-related planning, operation, and decision-making at the village level.

Special attention should be given to farmers located at higher elevations or farther from check dams by exploring micro-irrigation solutions and improved water distribution mechanisms, so that access to irrigation is more balanced across households. In addition, the establishment of a community-managed Operation and Maintenance fund is essential. Encouraging small annual contributions from beneficiary farmers can support routine maintenance and timely repairs of water harvesting structures.

Together, these measures will help strengthen institutional functioning, improve equitable access to water resources, and ensure the durability and effectiveness of the water management interventions over time.

2. INTRODUCTION

This chapter consists of an overview of the water stress in Indian context and Asian Paints Ltd.'s CSR efforts to address the issue. It provides an overview of the project, implementing partners, project geographies, scope, and purpose of the study.

2.1. Background

Water security has reached a critical inflection point in India because of rapid development, population pressure and climate volatility. As of 2025, India sustains approximately 18% of the global population with only 4% of the world's freshwater resources.¹ The NITI Aayog Annual Report (2024-25) warned that the country's average per capita water availability is projected to decline to 1,341 cubic meters by late 2025, pushing the nation further into the "water-stressed" category (threshold < 1,700 m³) and nearing the "water-scarcity" limit of 1,000 m³.² With abundant flow in Ganga and Brahmaputra basins and much lower availability in west and south-western basins, regional disparities exist that make proper management of local demand essential.

India's water budget remains heavily dependent on a fluctuating monsoon and there are both quantity and quality concerns with groundwater. According to the Dynamic Ground Water Resource Assessment (2024) published by Central Ground Water Board (CGWB), the total annual groundwater recharge is estimated at 446.90 Billion Cubic Meters (BCM), with an annual extractable resource of 406.19 BCM. While the average extraction rate is 60.47%, regional disparities are severe. Out of a total of 6,746 assessment units, approximately 11.1% of assessment units, primarily in Punjab, Haryana, Rajasthan, and Delhi, are classified as "over-exploited", where extraction exceeds natural replenishment.³ On groundwater quality, CGWB's Annual Ground Water Quality Report 2024 highlights localized exceedances of nitrate, fluoride, and arsenic in shallow aquifers across different states, varying seasonally with recharge and agricultural inputs.⁴ The report mentions Triple Contamination Challenge in India's groundwater, referring to the three most widespread contamination threats, each stemming from different sources- nitrate (anthropogenic), fluoride (geogenic) and salinity/electrical conductivity (EC).

Surface water pollution is another important concern. Around 70% of India's surface water is contaminated, ranking the country 120th out of 122 on the global Water Quality Index. Central Pollution Control Board's latest report titled "Polluted River Stretches for Restoration of Water Quality" identifies 150 polluted stretches nationally, including 35 Priority-1 segments where Biochemical Oxygen Demand (BOD) is greater than 30 mg/L. Wastewater from various sources, intensive agriculture, industrial activities, and untreated urban runoff contribute to this pollution, compromising the health of both humans and aquatic ecosystems.

Climate change has added to the risk of water stress. In 2024-25, India experienced a 55% increase in record heatwaves, accelerating evapotranspiration and increasing the demand for irrigation which consumes over 80% of freshwater in rural areas.⁵ Because of climate change, the monsoon pattern has become erratic, characterised by long dry spells followed by intense cloudbursts. When this happens, the natural soil infiltration is affected which results in flash floods and reduced aquifer recharge.

In this challenging water landscape, the importance of watershed management becomes apparent. Watershed management is not merely a focus on water projects but involves a holistic approach to land-use practices, afforestation, and soil and water conservation. Watershed approaches work at the hydrological unit where supply, demand and quality intersect. Steps like planting trees and protecting stream banks, building small check-dams and farm ponds, contouring fields to slow water, using drip/sprinkler irrigation and involving local communities in simple monitoring make more rain soak into the ground, reduce silt in reservoirs, steady flows

¹ United Nations World Water Development Report 2024, sourced at <https://unesdoc.unesco.org/ark:/48223/pf0000388948>

² NITI Aayog Annual Report 2024-25 [NITI AAYOG, India | Annual Report 2024-25](#)

³ [Press Release: Press Information Bureau](#)

⁴ CGWB Annual Ground Water Quality Report 2025 [CGWB - Publications Repository](#)

⁵ [India's Water Crisis: Why Climate-Resilient Governance is Urgent](#)

in the dry season and improve drinking-water availability. Such a holistic approach that addresses not only water scarcity but also soil conservation and natural resource management is crucial for ensuring a sustainable and resilient water future for the country.

1.2 Asian Paint Limited

Asian Paints, headquartered in Mumbai, is one of the largest paint companies in India. Started in 1942, the company currently operates in 14 countries with products sold in over 60 markets. Asian Paints operates in various segments, including decorative paints, industrial and automotive coatings, and home décor products like furniture, lighting, and wallpapers. APL focuses heavily on research and development, which helps it keep introducing new and improved products. The company has also launched eco-friendly and sustainable paints, in line with the growing global preference for environmentally responsible solutions.

Asian Paints goes beyond its core business by actively contributing to social and environmental well-being through its Corporate Social Responsibility (CSR) initiatives. Guided by its values of trust, fairness, and care, the company focuses on creating long-term impact in communities around its operations. Its programmes address key areas such as water conservation, healthcare and skill development, leveraging its expertise to deliver meaningful change. The objective is to empower marginalised communities and improve quality of life by tackling critical social, economic, and environmental challenges. These efforts are closely aligned with the United Nations Sustainable Development Goals (SDGs), particularly, Goal 1 (No Poverty), Goal 2 (Zero Hunger), Goal 3 (Good Health and Well-being), Goal 6 (Clean Water and Sanitation), Goal 8 (Decent work and economic growth), Goal 11 (Sustainable cities and communities) and Goal 17 (Partnership for the goals).

Asian Paints runs several initiatives in water conservation, health and hygiene, skill development, and disaster relief. Its flagship Water Stewardship Program called the Watermark program, focuses on improving water availability and security in communities around its plants. The program combines supply-side measures like pond cleaning, desilting, check-dam construction and renovation, canal lining, and integrated watershed management with demand-side interventions such as micro-irrigation, System of Rice Intensification (SRI), and sustainable farming practices. These efforts aim to restore water bodies, reduce soil erosion, and recharge groundwater, while promoting efficient water use in agriculture. By adopting a holistic approach that includes soil health and pest management, Asian Paints helps strengthen ecosystem services and improve livelihoods.

1.3 About the Study

To understand the impact created by its interventions implemented in FY 2023-24, Asian Paints Ltd. empanelled KPMG to facilitate the impact assessment of its **Participatory Water Resource Management project**. The objective of this study was to assess the impact of these water stewardship activities on the beneficiaries and stakeholders covered under the projects. The study aimed to understand the immediate, medium, and longer-term impact of the interventions on the targeted beneficiaries:

The duration considered for this study is financial year 2023-24.

Impact on Access & Availability of Surface & Ground Water	• To understand the impact on ground-water recharge based on well recharge data • To understand the duration of water availability post-monsoon (in months) • To understand the impact of water accessibility, availability & livelihood of the farmers
Impact on Potable Water	• To assess the impact on drinking water availability and quality due to rainwater water harvesting structures. • To assess impact on other areas like drudgery reduction, drop in health issues around the drinking water etc.

Impact on Agricultural Land & Practices	• To assess impact on season wise cropping pattern led by the availability of water in the area. • To assess impact on soil health due to balance use of fertilizer because of adoption of recommendations of soil testing report and application of organic fertilizers • To assess impact on knowledge level of the farmers about improved agricultural practices.
Impact on Farmer's Livelihood	• To assess impact of water availability on crop production (yield/acre) • To assess impact of water availability on productivity of livestock animals • To assess impact on net return/acre per farmer. • To assess the impact on livelihood opportunities created through the programme.
Other Impact Areas Apart from Water Rejuvenation & Canal Lining	• To assess knowledge and adoption level of water efficient agricultural and risk mitigation farm practices. • To assess level of ownership by the community in the asset created: Whether community-based institutions had been formed and taking care of maintenance aspects of the assets created under the project.

1.4 About the project

Asian Paints' Water Stewardship Programs signifies the company's dedication to sustainable practices and responsible corporate citizenship. By addressing the challenge of water scarcity through community partnerships and integrated initiatives, Asian Paints aims to make a positive impact on both its operations and the communities it serves.

The Water for Livelihoods Project in Dediapada focused on improving water availability for farming communities. The project worked on repairing and building check dams to store water and recharge groundwater, making irrigation more reliable. It also helped farmers use water efficiently through drip irrigation and shared equipment, while promoting better farming practices like organic methods and crop diversification. Alongside these activities, the project supported farmer groups and local institutions so that they could manage water resources and adopt sustainable practices. Training programs, demonstration plots, and community meetings were organized to build knowledge and encourage long-term change. Overall, the project aimed to increase crop production, improve incomes, and create a stronger, more resilient farming system for tribal and smallholder families.

The objectives of the project are:

- To organize and strengthen village institutions (User Group, Farmer Interest Group, and Farmer Producer Organization).
- To promote basic supplementary irrigation facilities by creating and strengthening water-harvesting structures and increase water storage and its availability.
- To improve and stabilize surface soil to convert unirrigated land to irrigated land.

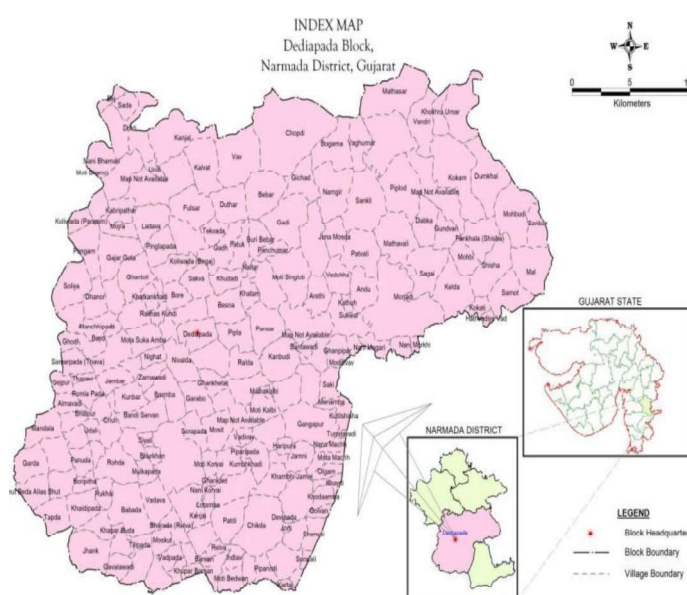
- To encourage enhanced farming practices to increase household income of tribal farming community along with benefitting the environment.

1.5 About implementing partner

Aga Khan Rural Support Programme (India) is a non-denominational, non-government development organization. AKRSP(I) works as a catalyst from 1985 for the betterment of rural communities by providing direct support to local communities. AKRSP(I) is active in over 3,255 villages of Gujarat, Madhya Pradesh, Bihar, and Maharashtra. The backbone of AKRSP(I)'s work is to empower rural communities particularly underprivileged and women through collectivization as well as promotion of individual micro-enterprises. Building self-reliant people's institutions for financial inclusion, livelihoods enhancement and improved rural governance is the heart of the organisation's approach. It supports Gram Panchayats to improve drinking water, sanitation, education, and nutrition services, while ensuring vulnerable households access entitlements and financial inclusion through SHGs.

1.6 Project Geography

Gujarat is characterized by a predominantly arid to semi-arid climate, making it one of the country's most water-stressed states. While the state is home to 5% of the country's population, it has only 2% of the country's water resources.⁶ The state experiences frequent droughts every three to four years, driven by erratic monsoon patterns and high evapotranspiration rates. Rapid industrialization adds pressure on the limited water resources and there is an increasing competition between agricultural, domestic and industrial water demands. Approximately 36% of the states' total geographical area is officially classified as drought-prone, making large parts of rural Gujarat particularly vulnerable to water scarcity.



Within this broader context, Narmada district stands out as one of Gujarat's most socio-economically disadvantaged regions. It is recognized as one of India's 112 Aspirational Districts, reflecting persistent development challenges. Located in the eastern part of the state, Narmada district is anchored by its headquarters at Rajpipla and is bordered by Maharashtra to the southeast, and by the districts of Surat, Vadodara, and Bharuch on its remaining boundaries. According to the Census 2011, the district hosts a population of 5,90,297, the vast majority of whom reside in rural areas and depend heavily on agriculture for their livelihoods.⁷ The dominant crops are cotton, toor, paddy and pigeon pea. Narmada district has 5 talukas- Nandod, Dediapada, Sagbara, Tilakwada and Garudeshwar. A significant part of the district is

⁶ Gujarat Infrastructure Development Board

⁷ Narmada | Vikaspedia - English - Aspirational District

composed of tribal populations, particularly the Vasava and Tadvi communities. The district is working on water management initiatives to address the growing demand for water due to its agricultural activities. The Sardar Sarovar Project, Karajan Irrigation project, Kakadi Amba, and Chopadvav projects are a few of the significant irrigation projects in the district. In Dediapada Taluka, where the project operates, Scheduled Tribes constitute an overwhelming 96.41% of the population according to Census 2011, making it one of the most tribal-dominated sub-regions in the state. Dediapada spans an area of 1,052.91 sq. km with a population of 1,74,449 residents.⁸ The National Aquifer Mapping and Management Plan (NAQUIM), Narmada District, Gujarat State report by the Central Ground Water Board revealed that out of a total of 18,812 hectares of net sown area in the Taluka, only 2.8% of the land is irrigated (544 hectares of net irrigated area).⁹ The remaining 97.2% of the net sown land is completely reliant on monsoon rains for water and lack other alternative sources of water. The taluka lies within the Shoolpaneshwar Wildlife Sanctuary's ecological belt, contributing to both its natural richness and its agricultural challenges.

Within Dediapada, the project villages, Rojghat, Umran, Patadi, Tilipada, and Kanjhai, are part of a cluster of forest-edge, tribal settlements characterized by smallholder agriculture, limited infrastructure, and high dependence on seasonal streams and rainfall. Households rely heavily on rainfed farming, and livelihoods are closely tied to local ecology, livestock rearing, and small-scale agriculture. The water-management challenges in these villages include low groundwater recharge, limited surface-water storage, and high runoff losses due to sloped terrain. Prior to the intervention, the absence of reliable water sources severely restricted crop choice and productivity. Many farmers could cultivate only a single kharif crop, and even that was often vulnerable to rainfall fluctuations.

⁸ [Dediapada Subdivision of Narmada, Gujarat | Population, Area, Villages, List of Villages](#)

⁹ [Central Ground Water Board, Ministry of Jal Shakti Report](#)

02

Approach & Methodology

3. APPROACH AND METHODOLOGY

The chapter provides details on the research design and methodology adopted for the impact assessment. It includes description of the key activities, data collection methods, and sampling strategies, employed to ensure the reliability and validity of the findings.

2.1 Our Approach

The study applied the OECD DAC and SROI frameworks to design the evaluation and measure the social returns and impacts generated by APL's CSR projects on water stewardship. The OECD DAC framework is a globally recognized approach for assessing the effectiveness of social development programs, while the SROI methodology goes beyond traditional economic metrics to capture broader social and environmental value.

A structured four-phase methodology was adopted to ensure a comprehensive evaluation. This approach integrated the principles of both OECD DAC and SROI throughout the process, enabling a robust assessment of outcomes and the overall impact of the program.

Phase I: Consulting and Scoping	Phase II: Research Design	Phase III: Data Collection	Phase IV: Analysis and Reporting
Kick-off meeting	Development of Impact Map	Development of field visit plan	Analysis of collected data using OECD DAC framework and estimating the SROI of the projects
Desk review of documents and reports related to the program	Mapping the stakeholders	Field visits and stakeholder interactions	Development of draft and final report
Determining the scope of the study	Designing sampling strategy and data collection tools		Presentation to APL Team

2.1.1 OECD-DAC

The Organization for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) introduced its evaluation criteria in 1991 as a structured framework for assessing development programs, whether ongoing or completed. This approach enables a systematic review of multiple dimensions of a program, offering both qualitative insights and quantitative measures of impact. The framework is widely recognized for its ability to evaluate effectiveness and relevance in social development initiatives. It is built around the following six key criteria, which form the basis for comprehensive program assessment under the OECD-DAC guidelines:



These evaluation criteria have been defined below along with illustrative questions:

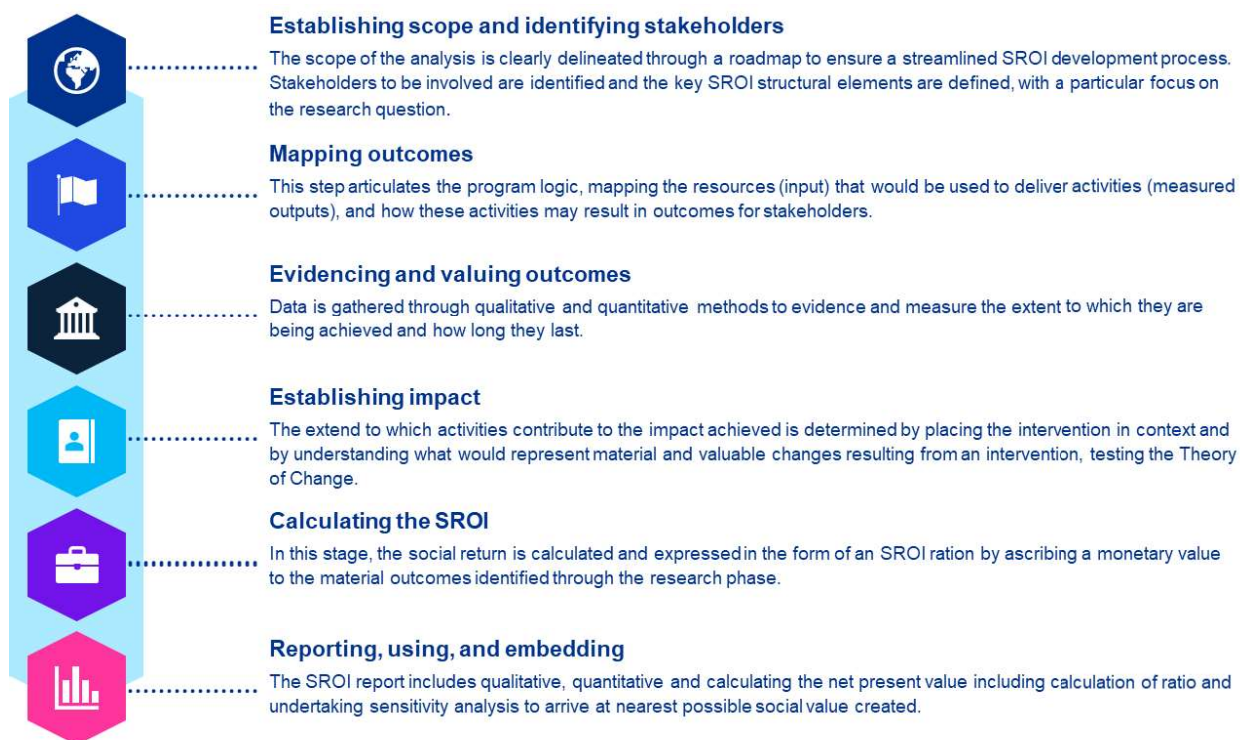
Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
Relevance	A measure of the extent to which the intervention objectives and design respond to beneficiaries, global, country, and partner/institution needs, policies, and priorities, and continue to do so if circumstances change. ▪ To what extent are the objectives of the project still valid? ▪ Are the activities and outputs of the project consistent with the overall goal? ▪ Are the activities and outputs of the project consistent with the intended impacts and effects?	<i>Commitments of the stakeholders are integrated into Project design and planning</i>
Effectiveness	A measure of the extent to which the intervention achieved, or is expected to achieve, its objectives, and its results, including any differential results across groups. ▪ To what extent were the objectives achieved / are likely to be achieved? ▪ What were the major factors influencing the achievement or non-achievement of the objectives?	<i>Achieved cross-cutting objectives during project implementation</i>
Efficiency	A measure of the extent to which the intervention delivers, or is likely to deliver, results in an economic and timely way. ▪ Were activities cost-efficient?	<i>Resources are provided and efficiently used for</i>

Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
	▪ Were objectives achieved on time? ▪ Was the project implemented in the most efficient way compared to alternatives?	<i>participation of all stakeholders</i>
Impact	A measure of the extent to which the intervention has generated or is expected to generate significant positive or negative, intended, or unintended, higher-level effects. ▪ What has happened as a result of the project? ▪ What real difference has the activity made to the beneficiaries? How many people have been affected?	<i>Achieved real and long-lasting positive changes in the lives of intended beneficiaries</i>
Sustainability	A measure of the extent to which the net benefits of the intervention continue or are likely to continue. ▪ To what extent did the benefits of a project continue after donor funding ceased? ▪ What were the major factors which influenced the achievement or non-achievement of sustainability of the project? ▪ What can be some of the innovative ways to make the project sustainable in the long run?	<i>Likelihood that project achievements will continue after project</i>
Coherence	A measure of the extent to which the intervention is compatible with other interventions in a country, sector, or institution. ▪ Does the project address the synergies and interlinkages between the intervention and other interventions in the same organisation and in the same sector/policy landscape? Does it weaken or enhance the impact of any current programs or policies? ▪ Does the program lead to duplication of efforts?	<i>The extent to which other interventions (particularly policies) support or undermine the intervention and vice versa.</i>

2.1.2 Social Return on Investment (SROI)

Social Return on Investment (SROI) is a structured approach designed to capture and measure the broader value created by an investment. It covers the social, environmental, and economic benefits that traditional cost-benefit analyses often overlook. This methodology assigns monetary values to social and environmental outcomes, enabling organisations to calculate how much value is generated for every rupee spent on a program. Unlike conventional assessments, SROI focuses on changes that matter most to stakeholders, providing a clear picture of the social impact of projects and policies.

By using SROI, organisations can demonstrate the social value their initiatives deliver, gain deeper insights into stakeholder impact, and integrate these findings into strategic decision-making. It is fundamentally about value rather than just financial returns and can be applied to an entire organisation or a specific program. The approach uses a theory of change or impact map to outline how interventions lead to measurable outcomes, expressed in monetary terms, allowing for a benefit-to-cost ratio calculation. SROI combines qualitative, quantitative, and financial data, along with case studies, to inform future planning. Its key advantage lies in going beyond identifying outcomes to valuing them and calculating their social worth. Steps of a SROI are as follows:



Setting the Scope 	Identification of stakeholders including beneficiary group, finalising the scope- setting the boundary of what is going to be considered for evaluative SROI - stakeholders including beneficiaries, impacts, program period, etc.
Mapping Outcomes 	Creating impact map, identifying investments, and valuing inputs, identifying outcome sand indicators for monitoring / evidencing outcomes
Evidencing Outcomes 	Collecting and analysing outcome data and establishing how long the outcome will last
Establishing Impacts 	Identifying and valuing financial proxies, adjusting outcomes using deadweight, displacement, attribution and drop off, calculating the impact
Calculating SROI 	Programming the value of outcome into future based on the duration for which the impact will last, calculating the net present value including calculation of ratio and undertaking sensitivity analysis.

The process of calculation of SROI largely focuses on deadweight, displacement, attribution, and drop-off in association with any outcomes achieved. All these aspects are generally expressed as percentages and these percentages are applied to the financial proxy of each outcome to arrive at the total impact for the outcome. Therefore, we used a customised framework involving a combination of OECD-DAC and SROI to obtain a full picture of the impact created by APL.

2.2 Detailed Methodology

The following section discusses the methodology being employed by KPMG in this impact assessment, which has been broken down into four phases.

PHASE I: CONSULTING AND SCOPING

Activity 1: Inception Meeting

The initial step involved a scoping and kick-off meeting between the KPMG team and APL to finalize the work plan. The key tasks, timelines, and approach for the engagement were discussed. A detailed project plan was prepared by KPMG to guide the execution.

Activity 2: Desk Review and Stakeholder Engagement

The team conducted a thorough review of documents provided by APL, including concept notes, annual reports, and progress or closure reports. Secondary research was also conducted to gain an in-depth understanding of the project locations and interventions. Additionally, discussions with APL and implementing partners helped clarify KPIs, map external stakeholders, and define the sampling strategy and size.

PHASE II: RESEARCH DESIGN

Activity 1: Developing the Impact Map / Theory of Change

An impact map based on the theory of change was created to define the project's outcome and impact parameters. This map serves as a logical framework that illustrates how inputs (actions or activities undertaken) lead to outputs (immediate changes resulting from interventions), which then drive outcomes (short- or medium-term effects linked to those outputs) and ultimately generate impact (positive or negative, intended or unintended, direct or indirect) arising from the interventions.

Refer next page for the impact map

Impact Map

Stakeholder	Project Objectives	Inputs	Output	Outcome	Evidence Indicator
Farmers, Community members FPO/VI/WUA	To promote basic supplementary irrigation facilities by creating and strengthening water harvesting structures and increase water storage and availability To improve and stabilize surface soil to convert unirrigated land to irrigated land. To organize and strengthen the village institutions around water harvesting and related livelihoods	Construction and refurbishment of check dams, ponds and other WHS, Capacity building, Access to Finance, Time	Number of families reached out / availed benefits of check dams and other water harvesting structures	Increase in agricultural production	Changes in availability of cultivated land Changes in cropping pattern by farmers Changes in multi-seasonal cropping
				Access to secure livelihood	Changes in the input cost required for agriculture
				Creation of sustainable water supply	Changes in the irrigation fed agriculture, changes in the availability of water, reduced dependency on the other sources of water
				Creation of employment opportunities	Changes in the labour employment by the local population
			No. of families benefited from Group wells & Borewell	Access to potable water	Reduction in water borne diseases (Improvement in health), reduction of drudgery (time saved)
				Access to secure livelihood	Changes in the input cost required for agriculture, adoption of improved agriculture practices
			No. of village institutions benefited	Establishing community stewardship over	Community led governance of its resources, effective operations, and

Stakeholder	Project Objectives	Inputs	Output	Outcome	Evidence Indicator
				the common water resources	maintenance of water structures
			Increase in water storage capacity	Improved biodiversity in the catchment area	Increase in biomass in command area, Improved bio-diversity – presence of bird and animal species, Improved soil health, Reduced soil pollution.

Activity 2: Stakeholder Mapping and Sampling strategy

Stakeholder mapping is the process of identifying all the stakeholders involved in a project and their roles and responsibilities on one map. The main benefit of a stakeholder map is to get a visual representation of all the



people who can influence the project and how they are connected. Stakeholders who experience change, whether positive or negative because of the interventions carried out were considered for the study. Furthermore, their pertinence to the scope of the study and relevance to the overall analysis were assessed.

Sampling of stakeholders for engagement was done based on the materiality of the stakeholder and the extent of the impact on the stakeholder. Considering the overall outreach of the project as nearly 1249 beneficiaries, the statistically significant sampling has been derived. Additionally, we have taken extra sample stakeholder to derive accurate social return on investment ratio. The stakeholder-wise mode of interaction has been detailed out below:

Stakeholder type	Universe	Sample	Actual coverage
Farmers Benefitted due to water intervention	1249	100	100
PRI PRI members from	-		4

Stakeholder	Reason for Inclusion	Data collection tool
Farmers who have been benefitted due to water harvesting related interventions	Since the farmers are the direct beneficiaries of this study hence it is important to include them to understand if the objectives of this program have been met.	Structured Questionnaire: were developed In-depth Interview: were also undertaken
Farmers who have been benefitted due to agriculture related interventions	Agriculture is a key intervention, Hence, it is critical to get their perspective of the beneficiaries	Structured Questionnaire: were developed In-depth Interview: were also undertaken
Community members benefitted due to potable drinking water	The community members from the intervention area have been a key stakeholder and receiver of the impact hence, it is important to get their perspective.	Semi-structured Questionnaire: were developed
WUA members	In order to understand the governance mechanism established over the water usage, these stakeholders are important	Structured Questionnaire: were developed In-depth Interview: were also undertaken
PRI Members and government officials	In order to understand broad perspective of the community members through elected members	Semi-structured Questionnaire: were developed
Stakeholders excluded from the study		
Community members from periphery of intervention villages	Excluded - It was understood from the implementing team that due to no direct intervention, these stakeholders will remain outside the scope of the intervention	Not applicable

The study includes three categories of beneficiaries: primary, secondary, and tertiary. Farmers, as the direct and intended recipients of project interventions, constitute the primary beneficiaries. Their family members and other community stakeholders constitute the secondary beneficiaries. Additionally, interactions were conducted with institutional stakeholders such as Panchayati Raj Institution (PRI) representatives and government officials, who constitute the tertiary stakeholders.

Activity 3: Development of Data Collection Tools

The study adopted a mixed-methods approach, combining quantitative and qualitative techniques for data collection and analysis. Initially, a comprehensive desk review was conducted to assess existing knowledge and identify gaps for further investigation. Following the literature review and research design, survey instruments were created based on the impact map to gather both quantitative and qualitative data from a sample population using offline methods. These tools captured participants' experiences, attitudes, and behaviors. Additionally, semi-structured interviews were designed for key stakeholders, including experts, PRI members, government officials, community leaders, and practitioners, to gain deeper insights into the research topic and emerging best practices. All tools were aligned with program objectives and the scope outlined in the RFP, with additional questions incorporated to enrich the case study. The tools developed include:

- Tools for individual interactions
- Tools for focus group discussions
- Tools for other key stakeholder interactions
- Development of a research and data collection plan

PHASE III: DATA COLLECTION

Activity 1: Development of Field-Visit Plan

Stakeholder interactions were planned in coordination with APL and the project implementing partner. A detailed timeline was prepared for the field visits, with the implementing partner providing support for scheduling meetings, mobilizing stakeholders, and arranging translators where necessary. The team also consulted with the partner to anticipate potential challenges such as language barriers, cultural sensitivities, or safety concerns. These measures ensured that the data collection process was efficient and conducted in an ethical manner.

Activity 2: Conducting Field Visits

Stakeholder consultations were carried out through individual interviews, focus group discussions (FGDs), and key informant interviews (KII). To ensure effective communication, KPMG included facilitators with prior experience and proficiency in local language. The data collection team underwent training and sensitization sessions to engage stakeholders appropriately. Before the main exercise, tools were pre-tested. Throughout the process, data collection was closely monitored for completeness, accuracy and consistency, including backchecks and triangulation.

PHASE IV: ANALYSIS AND REPORTING

Activity 1: Data analysis and preliminary findings

During the data analysis, both qualitative and quantitative analysis were conducted on the data collected. To enhance accuracy and reliability, the findings from the quantitative data collected on the ground were triangulated to an extent. The collected information was thoroughly analysed on a location disaggregated basis, allowing for a detailed understanding of the specific areas involved. To calculate the social returns and impacts resulting from the program, the SROI framework and OECD-DAC framework were utilized. Additionally, a sensitivity analysis was conducted to examine the results of the ROI. The data and observations obtained during the primary data collection phase and document review

were carefully analysed to inform report writing. The findings were further scrutinised basis the assurance standards for SROI assessments.

Activity 2: Development of Report and Presentation

A comprehensive report was prepared for Asian Paints Limited at the enterprise level, capturing key observations, analyses, findings, and recommendations from the assessment. The report adhered to OECD-DAC and SROI framework guidelines to ensure accuracy and relevance. A draft version was shared with APL for review and feedback prior to finalisation. The finalised report was then presented to APL's leadership. Additionally, separate project-level reports were developed, providing detailed data and analysis. All collected data and corresponding analyses were also shared with APL.

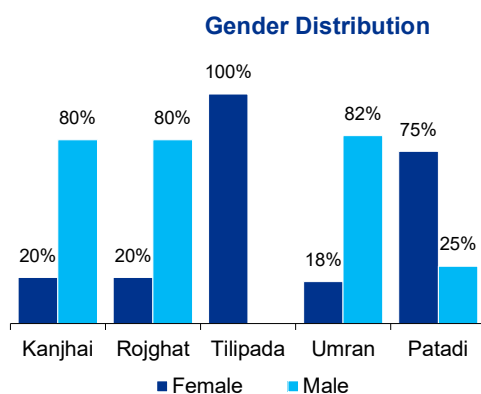
03

Analysis and Findings

3. ANALYSIS AND FINDINGS

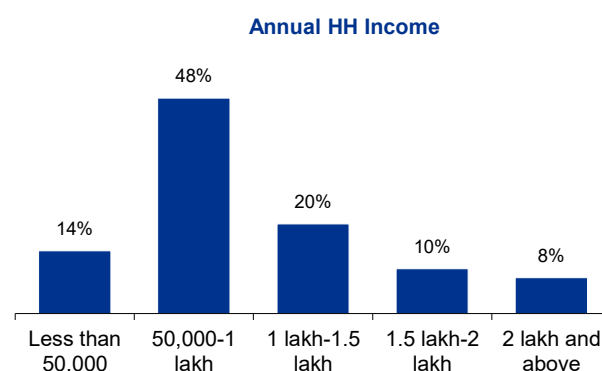
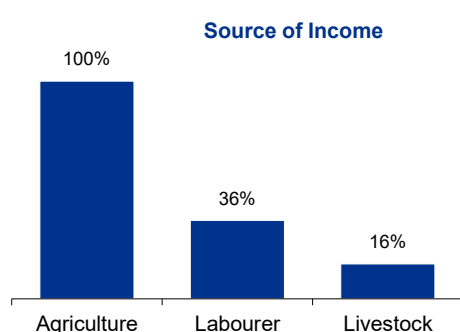
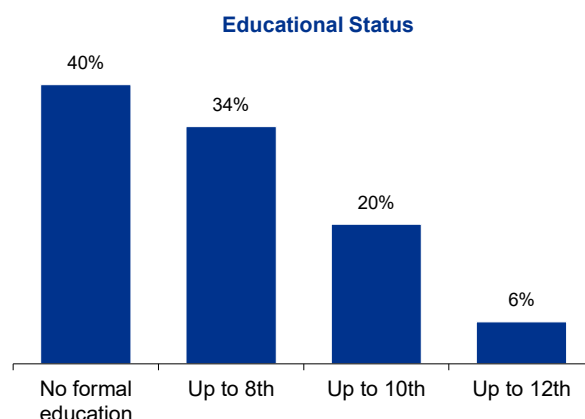
The section below highlights the findings and observations based on the interactions conducted with sampled beneficiaries of the Water for Livelihood program supported by Asian Paints Limited, across five villages named Patadi, Umran, Rojghat, Kanjai and Tilipada of Dediapada block in Narmada district of Gujarat.

3.1 Demography of Respondents



The gender distribution across the intervention villages shows a mixed pattern, with men forming a larger share of beneficiaries in most places. However, women's participation is still significant and varies depending on how the intervention reached each community. Tilipada stands out, where all beneficiaries are women because the solar panels were given collectively to an SHG group thereby enhancing their source of income up to a great extent.

The educational profile of beneficiaries indicates that a substantial proportion has limited formal schooling. A large share has either not attended school or has completed only the primary and upper-primary grades, while progressively fewer individuals have studied up to the secondary and higher secondary levels. This overall pattern reflects early school dropout and restricted access to higher education across the intervention villages.



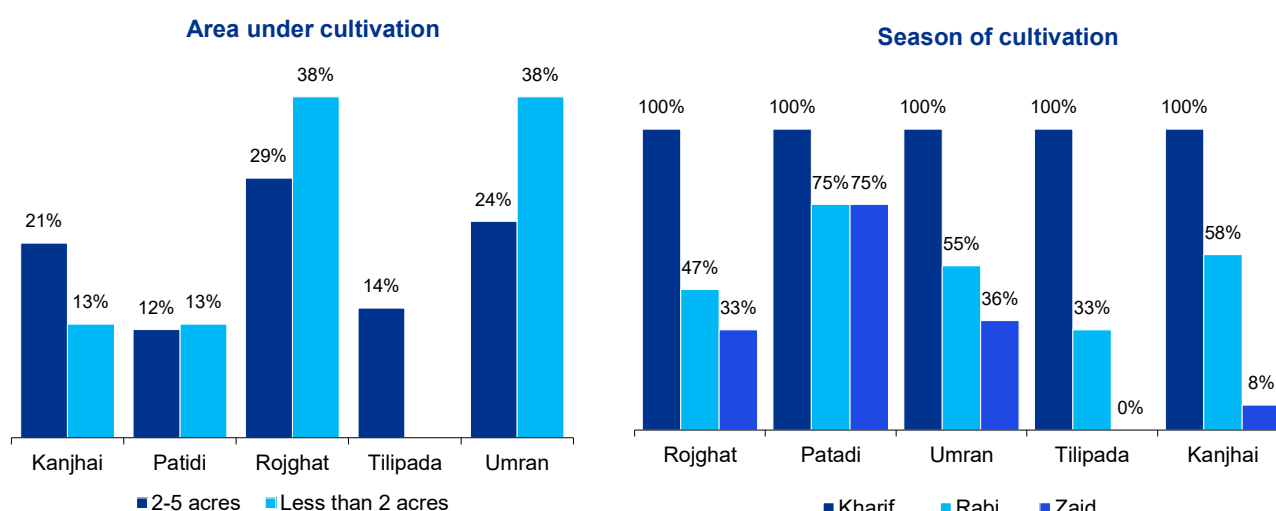
The income profile of beneficiaries shows a high level of dependence on agriculture, with all households identifying it as their primary source of livelihood. This reflects the predominantly agrarian nature of the villages, where farming continues to be the central economic activity. Only a limited proportion of beneficiaries engage in additional income-generating activities, such as labour or livestock rearing, and these serve largely as supplementary rather than primary sources of earnings.

Overall, the income landscape points to a community that would benefit from strengthened livelihood diversification, improved farm productivity, and greater resilience to agricultural risks. Interventions that

enhance both agricultural and non-farm income options are likely to have a meaningful impact on household stability and long-term economic well-being.

The annual income pattern shows that most beneficiary households fall within a modest earning bracket. A large share earns between ₹50,000 and ₹1 lakh a year, which suggests that families are managing with limited and often unpredictable income. A smaller group earns less than ₹50,000, indicating a higher level of financial strain. Only a few households report incomes above ₹1.5 lakh, and very few cross ₹2 lakh annually.

Area and Season of Cultivation:

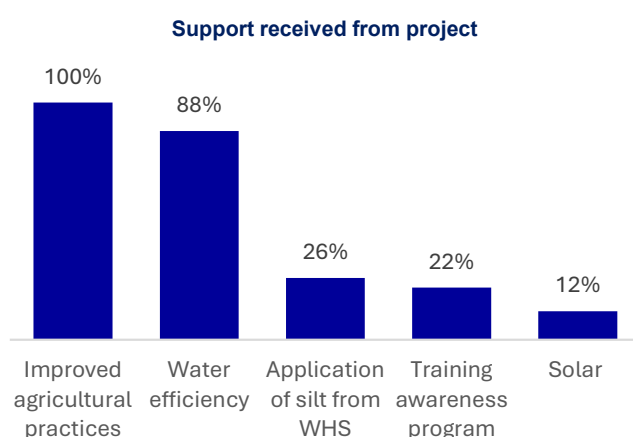


The cultivation profile across the intervention villages shows that most beneficiaries are smallholders, with land primarily falling within the less than 2 acres and 2-5 acres categories. This pattern is similar across villages, showing that most households work with small plots of land. The seasonal distribution of farming further reflects this context. Kharif cultivation is undertaken by almost all households, underscoring the central role of the monsoon in agricultural operations. Rabi cultivation is present but varies between villages, suggesting differences in access to water and other inputs needed for post-monsoon farming. Zaid cultivation is comparatively minimal, taken up only in places where conditions allow for an additional irrigation system and short-season crop. Together, these trends point to a predominantly smallholder, rain-dependent agricultural system. The reliance on Kharif, combined with modest landholdings, highlights the importance of interventions that support efficient use of limited land and strengthen the ability of households to engage in multiple cropping seasons wherever feasible.

Status of Irrigational Facility:

Village Name	Yes	No, only dependent on rains
Kanjhai	20%	80%
Patadi	100%	0%
Rojghat	33%	67%
Tilipada	0%	100%
Umran	36%	64%

The availability of irrigation facilities varies widely across the intervention villages, creating clear differences in farming security and seasonal cultivation. While a few locations have full irrigation coverage, most villages show only partial access, and some remain entirely dependent on rainfall for cultivation. This mix of irrigated and rain-fed households reflects uneven infrastructure and differing levels of water reliability. In villages without irrigation, agriculture is largely confined to the monsoon season, making farmers more vulnerable to rainfall variability and limiting their ability to grow additional crops. In contrast, households with irrigation have greater flexibility to cultivate in multiple seasons and manage crop risks more effectively. Overall, the pattern highlights a predominantly rain-dependent agricultural system, where expanding even basic irrigation support could significantly strengthen the stability and productivity of smallholder farming.



Beneficiaries reported receiving a range of support through the intervention, with the largest share benefiting from improved agricultural practices and water-use efficiency measures. These components formed the core of the project's outreach and reflect its focus on strengthening day-to-day farming practices and helping households manage water more effectively. A smaller proportion of respondents received silt application support and training or awareness inputs, which served to improve soil conditions and enhance knowledge on better

cultivation methods. The solar-based intervention reached a limited number of households, indicating its targeted implementation in specific locations.

Overall, the distribution of support shows that the project prioritized interventions with immediate relevance to smallholder farmers, while also integrating complementary measures that build longer-term capacity. The combination of practical field-level improvements and knowledge-oriented activities suggests a balanced approach aimed at improving productivity, resource efficiency, and resilience across the beneficiary communities.

About Accessibility of the project across all community groups:



Analysis reflects the level of inclusivity in the project's activities. The KPIs-accessibility for all social groups, is a critical measure of the project's social inclusivity, and the data indicate that the project has performed well, with a 100% accessibility rate. This indicates that the project has taken the necessary measures to ensure that all social groups, regardless of caste, class, race, religion, or other factors, have equal access to the support

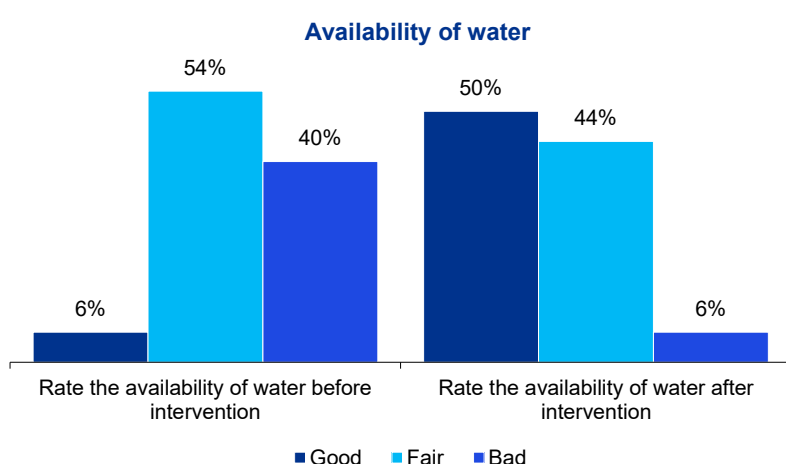
interventions. This demonstrates the project's commitment to social equity and inclusion. By improving accessibility for all social groups, the project can ensure that the benefits of its activities are shared equitably, promoting sustainable development in the region.

3.2 Water Harvesting Structure

As part of the impact evaluation, consultations were conducted with beneficiaries to understand their experiences and gather feedback on the interventions. All respondents reported that the water-related activities had a positive impact on their livelihoods, indicating a high level of satisfaction with the project's efforts in this area. Beneficiaries also noted that they were engaged during both the planning and implementation stages, and that their inputs were considered in decision-making. This reflects the project's strong emphasis on participatory processes, which is essential for ensuring community ownership, effective implementation, and long-term sustainability of the interventions.

3.2.1. Impact on availability of water

Availability of water:

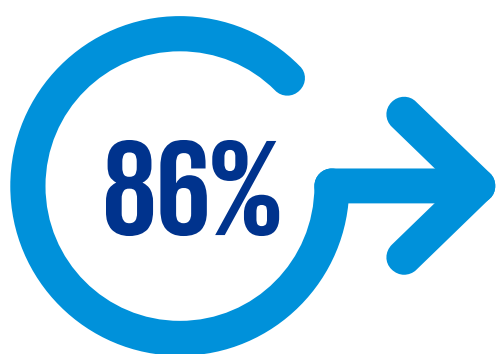


The availability of water has improved following the construction of the water harvesting structures. Prior to the intervention, only 54% of respondents rated water availability as fair, while 40% described it as bad, indicating that while water was generally accessible, however its availability and consistency remained a challenge.

Post-intervention, the distribution shows a notable shift in water availability, 94 percent of the respondents now

rate water availability as good, suggesting that the intervention has enhanced the reliability and regularity of water access. Moreover, beneficiaries report fewer disruptions, reduced dependence on external or distant sources and improved water availability thereby creating favorable conditions for better irrigation.

Accessibility of water:

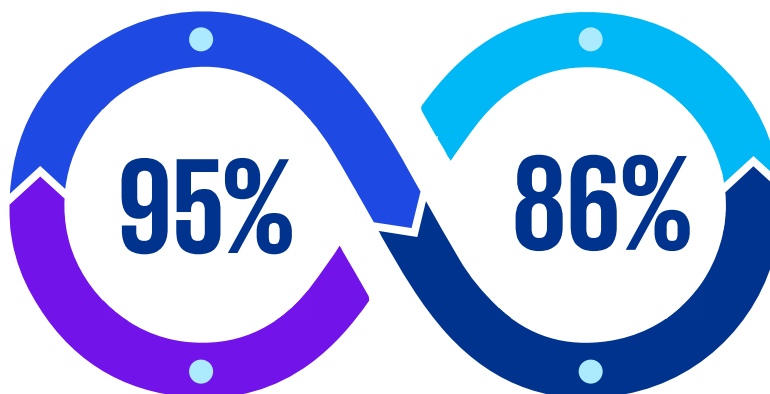


The intervention has led to a clear improvement in the accessibility of water for most households. A large majority of respondents shared that accessing water has become easier after the operationalization of the water harvesting structures. This indicates that communities now experience more reliable and convenient water access, with reduced dependence on distant or inconsistent sources. The small proportion of respondents who reported no improvement may be doing so because their farmland is located farther away from the water harvesting structure, limiting the direct benefits they can

Duration of availability of water in Water Harvesting Structure/Borewell/Well post intervention:

Duration of surface water availability in Water Harvesting Structure post intervention

95 percent respondents indicated that Water Harvesting Structures held water for 3-4 months, while a smaller proportion experienced an increase lasting 1-2 months, this could be possibly because these beneficiaries have their farmland located farther



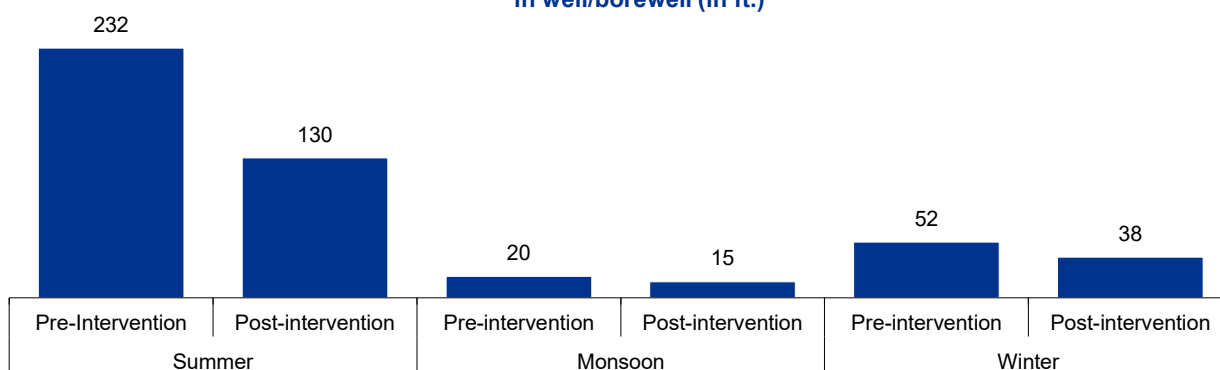
Duration of water availability in well/borewell post intervention

86 percent reported that water levels in their wells and borewells remained elevated for 2-3 months after the intervention, prior while a smaller proportion experienced an increase lasting barely up to 1-2 months

86%

Depth of water availability in well/borewell:

Average depth of water availability in well/borewell (in ft.)

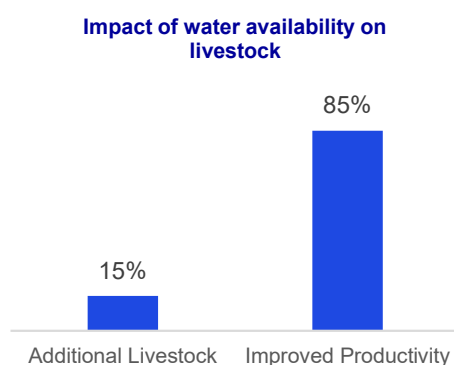


Beneficiaries owning wells and borewells reported a clear improvement in water availability across all seasons following the construction of the water harvesting structures. The most significant change was observed during the summer months, a period traditionally marked by acute water stress. Prior to the intervention, water was available at an average depth of 232 ft, limiting its usability for agriculture. After the intervention, the depth reduced to 130 ft, reflecting a 44 percent improvement in water availability. This substantial rise in the water table demonstrates the effectiveness of the recharge measures introduced through check dams and storage structures. During the monsoon season, a natural period of higher groundwater levels, the intervention also contributed measurable gains. Water availability improved from 20 ft to 15 ft, indicating a 25 percent improvement. Enhanced infiltration resulting from slowed surface runoff and increased groundwater retention has strengthened the aquifer's recharge cycle.

Winter, which typically witnesses a decline in groundwater levels, also showed positive change. Water depth improved from 52 ft to 38 ft, representing a 27 percent enhancement. This indicates that groundwater retained during the monsoon is now sustained for longer durations, supporting wells and

borewells well into the dry season. Overall, the consistent rise in groundwater levels across seasons has enabled farmers to access water more reliably, supporting multi-season cropping and reducing vulnerability to seasonal fluctuations. Beneficiaries noted that the improved depth and stability of water availability have facilitated better agricultural planning and enhanced livelihood security.

3.2.2. Impact on Livestock



The improved availability of water following the intervention has had a positive, though varied, influence on livestock-related outcomes within the community. For nearly half of the respondents, better water access has directly contributed to improved livestock productivity. This suggests that livestock are now benefiting from more regular drinking water, improved hygiene conditions, and in some cases, better fodder cultivation made possible through reliable irrigation. These factors collectively support healthier animals, better milk yield, and reduced stress during dry periods. While interacting with the beneficiaries it was understood that milk production/yield on an average has increased by 4 litres

A small proportion of households reported an increase in their livestock numbers. This indicates that a few beneficiaries now feel more confident in expanding their herd size, likely due to reduced uncertainty around water access which is a key limiting factor in livestock rearing.

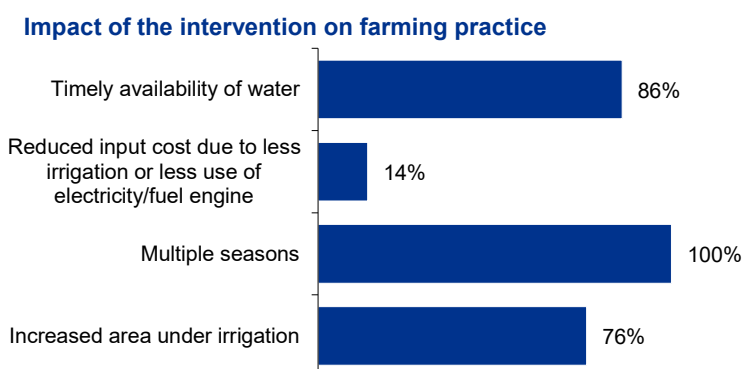
At the same time, for an almost equal share of respondents, the impact was not directly applicable. This could be because some households do not own livestock or engage minimally in livestock-related activities.

3.2.3. Impact on farming practices

Impact on farming practices:



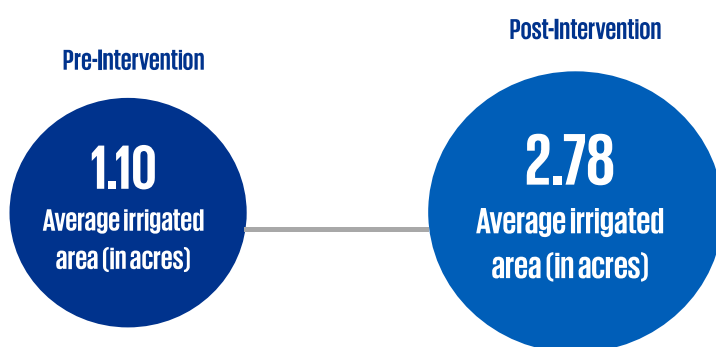
The most notable outcome is the enhanced cropping intensity, with all surveyed farmers reporting their ability to cultivate across multiple seasons. This shift indicates not just improved water availability but



also a transition towards more stable and diversified farming cycles. 86 percent of farmers also experienced timely access to water, which has reduced their dependence on uncertain rainfall patterns and allowed for better planning of sowing and irrigation schedules.

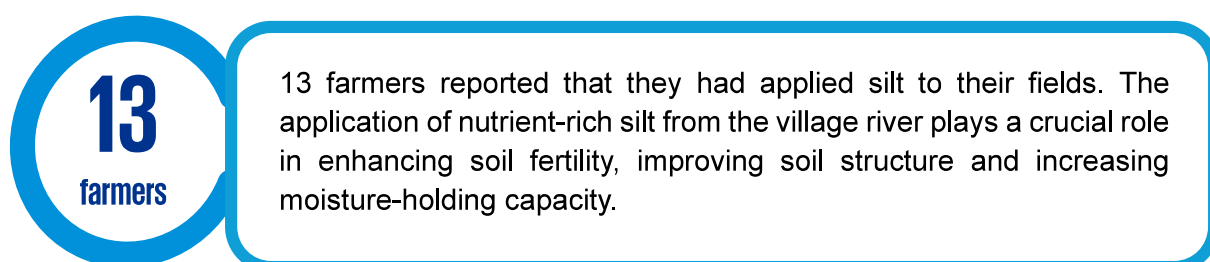
Additionally, the increased area brought under irrigation reflects a tangible expansion in cultivable land, signalling greater utilisation of previously partially irrigated fields. Although a comparatively smaller share of farmers i.e. 14 percent reported reduced input costs whereas 86 percent has reported increase in their expenditure. This rise is largely attributed to the shift towards cultivating an additional season and the introduction of new or diversified crops, both of which naturally demand higher investment in seeds, fertilizers, and other inputs. Thus, while efficiencies in irrigation may have reduced costs for a few, the broader adoption of intensified farming practices has led to a net increase in input requirements for the majority.

Impact on area of irrigation:



The water harvesting structures have expanded the command area under assured irrigation across most locations, converting previously rainfed or partially irrigated plots into reliably irrigated land. Villages such as Tilipada and Rojghat show the most pronounced shifts, indicating that stored water is now available long enough to support an additional season. This suggests that the availability of stored water has allowed farmers to irrigate a larger portion of their land, especially during critical crop stages, thereby reducing the risk of crop failure. On the other hand in some villages like Patadi, the change in irrigated area is relatively small. This may indicate that the village already had a higher base level of irrigation, or that farmers there primarily experienced improvements in water reliability rather than expansion of irrigated land.

Silt Application:



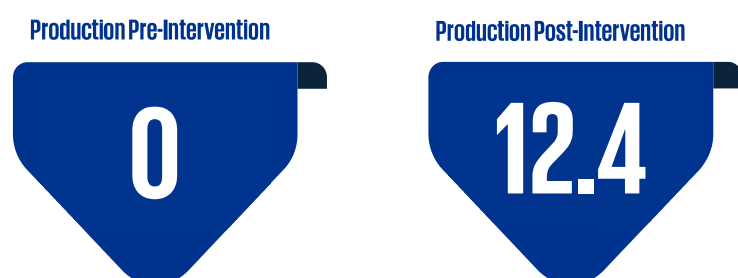
Average increase in yield and delta change for various crops

Crop 1- Paddy



Rice is a staple food in the villages of Dediapada yet productivity from paddy cultivation is constrained by irregular water availability and over-dependence on monsoon rainfall. Paddy is a water-intensive crop that requires reliable and sustained moisture. The improved water availability following the construction of water harvesting structures has had a transformative effect on paddy cultivation across the project villages. Farmers reported more reliable irrigation during sowing and grain-formation stages, which directly contributed to substantial productivity gains. At an aggregated level, paddy yield increased from an average of about 5.2 quintals per acre to nearly 15.6 quintals per acre, representing an overall rise of more than 200 percent. Village-level values reflect similar patterns, with yields increasing by approximately 167 to 246 percent across locations. Notably, villages such as Umran and Patadi recorded the highest improvements, where yields more than tripled compared to pre-intervention levels.

Crop 2- Maize



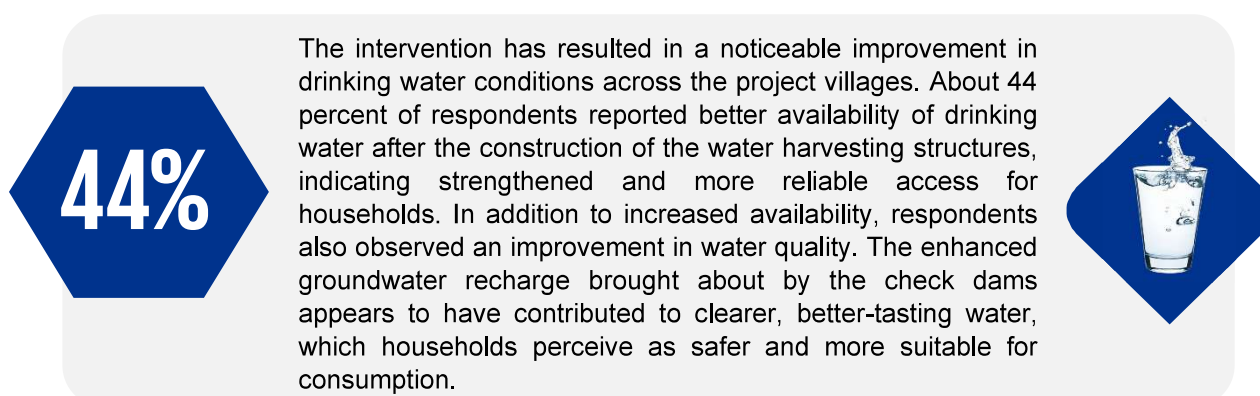
Maize was not cultivated earlier in the villages due to insufficient and unreliable water availability. As a moderately water-demanding crop, maize requires a consistent supply of moisture during its vegetative and grain-filling stages, making it unsuitable for regions dependent solely on monsoon rainfall. The introduction of the check-dam and lift-irrigation systems fundamentally changed this scenario by ensuring year-round access to water and creating the conditions necessary for farmers to diversify into maize cultivation. Farmers now grow maize in the months of December-January. Beyond its value as a cash crop, maize holds dual importance as a critical source of fodder for cattle. With improved irrigation, farmers were able to cultivate maize for the first time, and the results have been significant. Post intervention yield data show substantial production gains across all surveyed villages, ranging from 11 to 15 quintals/acre. By enabling maize cultivation, the intervention has improved food security, strengthened livestock management through availability of fodder, and increased the overall agricultural productivity of the region. This marks an important shift from monsoon-dependent subsistence farming towards a more diversified farming system supported by sustainable water access.

Crop 3- Toor



Toor (pigeon pea) is an important pulse crop valued both for household consumption and as a reliable source of income. However, its successful cultivation depends on adequate soil moisture during early vegetative growth and pod formation. Prior to the intervention, farmers in the villages cultivated Toor only on a limited scale due to inconsistent water availability and the crop's sensitivity to moisture stress during critical growth stages. Consequently, yields remained modest, ranging from 3.6 to 4.7 quintals per acre. With enhanced water security because of the intervention, farmers were not only able to expand the area under Toor cultivation but also achieve significantly higher yields across all villages. Crops like Toor are vital for nutritional security due to their high protein content and form an important part of the local cuisine. Improved Toor yields contribute to diversified income streams for farmers and enhance soil fertility through the crop's natural nitrogen-fixing ability.

3.2.4. Impact on drinking water

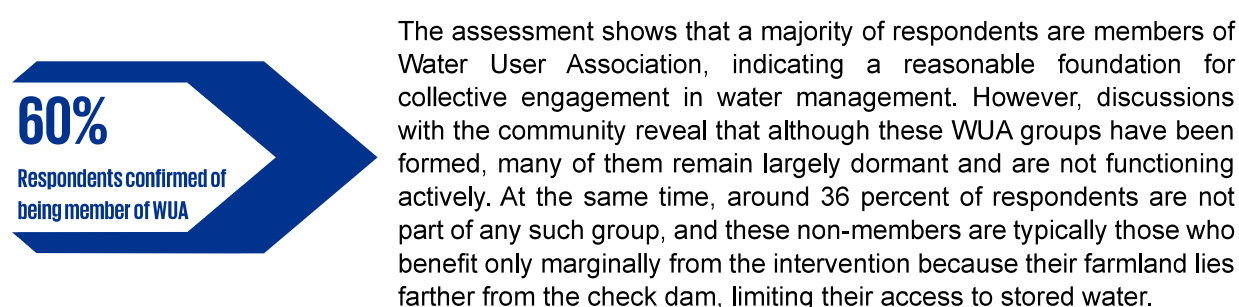


3.2.5 Impact on personal life

The Water Harvesting Structures have brought notable improvements in the personal lives of beneficiary households. While none of the community members surveyed have yet invested in major asset creation, their overall standard of living has improved significantly. Before the intervention, most families practiced subsistence farming and struggled to generate surplus income. With improved water availability, nearly 90 percent of respondents reported earning almost twice their earlier income. A large share of this additional income is being reinvested into agriculture such as better inputs and expanded cultivation to further increase productivity. This shift from survival-based farming to more stable and profitable agriculture has reduced financial stress, improved household well-being, and contributed to better socio-economic resilience across the community.

3.3 Water Governance

3.3.1 Member of WUA Group



3.3.2 Separate fund for O&M



The findings reveals that only a small proportion of beneficiaries reported that their Water User Association has established a separate fund dedicated to the operation and maintenance of the water harvesting structures. These cases are largely linked to solar irrigation pump users, who contribute a nominal amount of around ₹100 to support timely upkeep.

However, the vast majority of Water User Association members have not created any such funds. Discussions with the community indicate that this is primarily because the newly constructed check dams are perceived to be structurally strong and durable, with an expected lifespan of nearly 20–25 years, thereby requiring minimal maintenance in the short term. Beneficiaries also compared these structures with earlier government-built check dams, which they felt deteriorated within just 3–5 years, reinforcing their belief that routine maintenance is unnecessary at present. Additionally, lack of awareness and knowledge regarding the importance of O&M funds could be a possible reason for lower participation in creation of separate funds. Though the Water Harvesting Structures have created significant impact in the lives of beneficiaries, however there must be guiding bylaws and O&M processes in place for long-term sustainability of the intervention.

3.4 Agriculture and Livelihood

3.4.1 Impact on agricultural land

Discussions with the respondents revealed a marginal increase in the total cultivable area, from 2.8 acres to 2.9 acres. As the landholding size remains the same, the marginal increase is because the farmers could bring previously underutilized or fallow land to productive cultivation. Additionally, with multi-cropping made possible by the increased water availability due to the intervention, the farmers were able to do more effective utilization of their land for cropping. A more substantial impact is observed in the total irrigated area, which increased from 1.1 acres pre-intervention to 2.9 acres post-intervention. Previously, majority of the farmers were fully dependent on rainfall and did not have irrigation facilities. After the construction of the check-dam and lift irrigation (and drip irrigation in a few areas where farmers owned open well/borewell), farmers are now able to irrigate a much larger proportion of the land (notably, equivalent to their total cultivable area) and have access to a reliable water supply. Thus, the intervention not only improved water security, but also enhanced the overall agricultural potential, allowing the farmers to grow more crops and increase production.

3.4.2 Impact on Mode of Irrigation

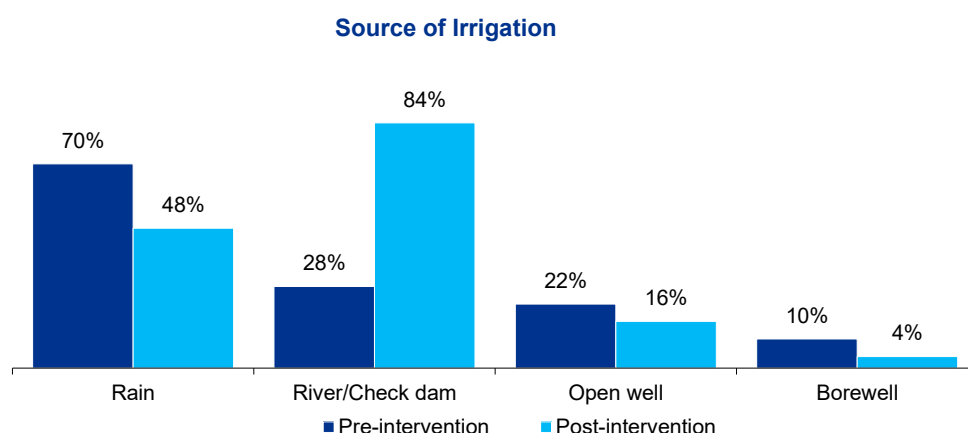


Respondents reported transitioning from surface/flood irrigation to localized and drip irrigation post intervention

Post-intervention, the irrigation practices have shifted towards more controlled, water-efficient methods. While previously, majority of the farmers relied on flood irrigation facilitated by the monsoon rains, localized irrigation now accounts for 56 percent of usage. This indicates that more than half of the farmers now deliver water directly to specific plots or crop rows as needed than inundating entire fields. 24 percent of the respondents practiced drip irrigation. Drip irrigation has the added advantage of supporting timely fertigation (fertilizer is diffused along with the water for effective application). Surface/flood irrigation has declined to 20 percent, reflecting reduced dependence on high-loss

methods. Together, localized and drip systems make up 80 percent of all irrigation practiced after the intervention, signaling a positive shift towards increased water efficiency and usage.

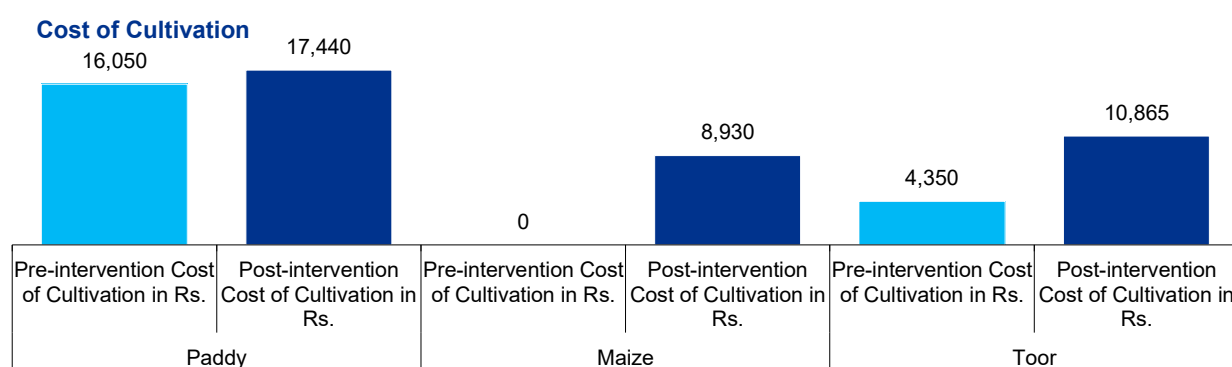
3.4.3 Impact on Source of Irrigation



APL's intervention has led to a significant change in the sources of irrigation used by farmers, shifting the villages from high dependency on rainfall to more reliable sources. Prior to the intervention, rainwater contributed to 70% of irrigation needs, reflecting the region's heavy reliance on monsoon and exposing farmers to high climatic risk. Post-intervention, this dependence decreased notable to 48%, making the farmers far less vulnerable to monsoon variability. With the construction of check dams on rivers and lift irrigation, the most striking change is seen in the usage of river water, which increased substantially from 28% pre-intervention to 84% post-intervention. Check dams have facilitated improved availability of water, particularly in winter and early summer months which previously were prone to water scarcity for agricultural uses. Use of open wells shows a slight decline from 22% to 16%, as more farmers are reliant on water from the check dam. Similarly, the reliance on borewells dropped from 10% to 4% suggesting that enhanced surface-water systems have reduced the pressure on groundwater extraction. This shift lessens the long-term ecological stress on aquifers. Overall, the post-intervention scenario shows a transition from uncertain, climate-dependent irrigation sources to more certain, secure and community-managed water systems.

3.4.4 Impact on Cost of Cultivation

The assessment of cultivation costs across key crops indicates a clear shift in farmers' investment patterns following the intervention. For paddy and Toor, the cost of cultivation has increased in the post-intervention period, while maize was previously not cultivated by the beneficiaries and has now emerged as an additional crop. This change suggests that the intervention has not merely influenced water availability but has encouraged farmers to diversify and intensify cropping activities. The increase in cultivation costs for paddy and Toor reflects a broader transition towards more productive agricultural practices.



With improved water access and the opportunity to farm an additional season, farmers are now investing more in better-quality seeds, fertilizers, and labor to maximize yield potential. The introduction of maize cultivation further demonstrates an expansion in crop choices, indicating growing confidence among farmers to experiment with new crops due to reduced water-related risks.

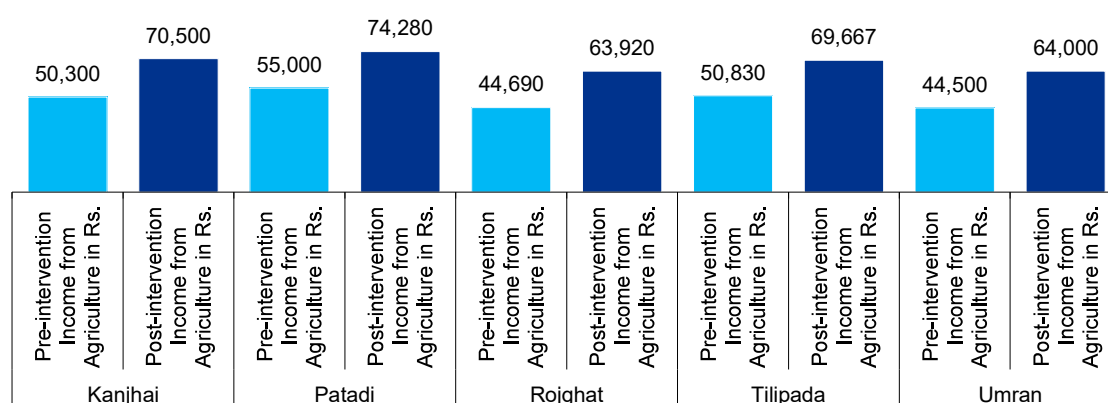
Though the rise in input costs may seem substantial, however, it is in the context of enhanced agricultural activity and the potential for higher returns. The shift signifies a movement from subsistence-level cultivation towards more market-oriented farming.



3.4.5 Impact on Agricultural Income

The analysis of agricultural income across the intervention villages shows a consistent upward movement, underscoring the positive impact of improved water availability and enhanced agricultural practices. Prior to the intervention, income levels were comparatively modest and reflective of limited cropping intensity and seasonal dependency. Following the intervention, all villages recorded a substantial rise in agricultural income, with increases ranging from 35 percent to 44 percent.

Respondents from Kanjhai experienced an approximate 40 percent increase in income, while Patadi recorded a rise of around 35 percent, indicating strengthened productivity and possibly the adoption of improved inputs and diversified crops. Rojghat and Umran witnessed some of the highest relative gains, with income increasing by nearly 43 percent and 44 percent, respectively. These significant jumps



suggest that farmers in these villages were able to maximize the benefits of improved water security by expanding cultivated areas or growing higher-value crops. Tilipada also showed a notable improvement of about 37 percent, reflecting a similar trend of intensified agricultural engagement.

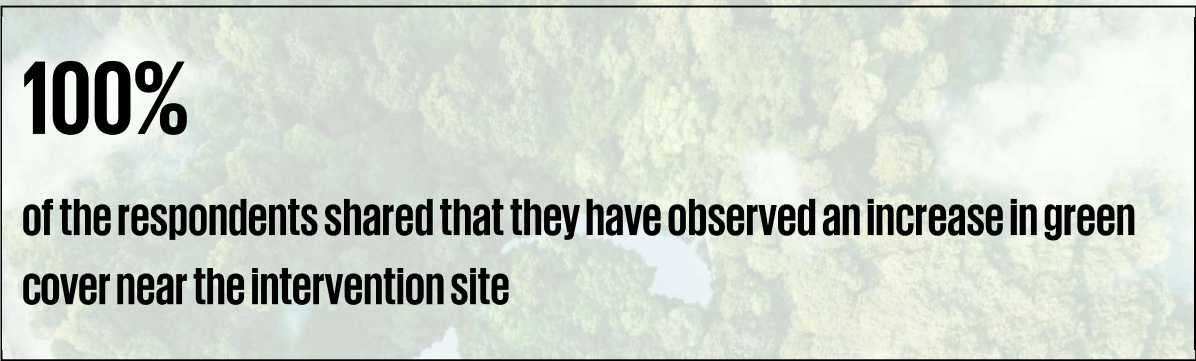
3.4.5 Brand Recall

The stakeholder consultations revealed a strong brand recall for Asian Paints Limited (APL) among community members across the project villages. Beneficiaries clearly recognized APL as the primary donor supporting the water harvesting interventions, and this awareness was further reinforced by the physical branding at each check-dam site, displaying the APL branding along with details of the number of farmers and households benefiting from that particular asset. During interactions, villagers consistently expressed gratitude for the support extended by APL, noting that the project has brought meaningful improvements to their agricultural productivity and daily lives.

3.5 Environment

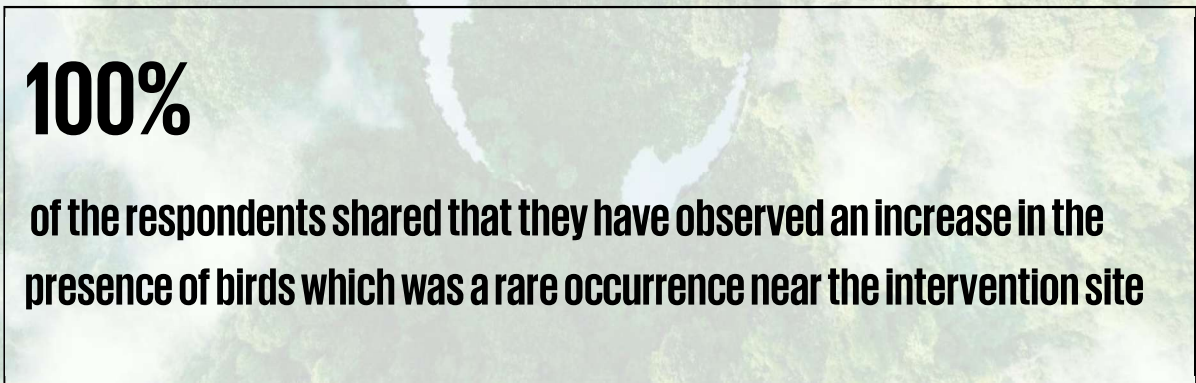
3.5.1 Impact on environment

During the interaction with PRI members, it was noted that green cover has increased over the last year around the intervention site, mainly due to an increase in the water level of surface water. This has positively resulted in increased frequency of bird visits along the pond site, previously we rarely used to have so many birds at one place.



100%

of the respondents shared that they have observed an increase in green cover near the intervention site



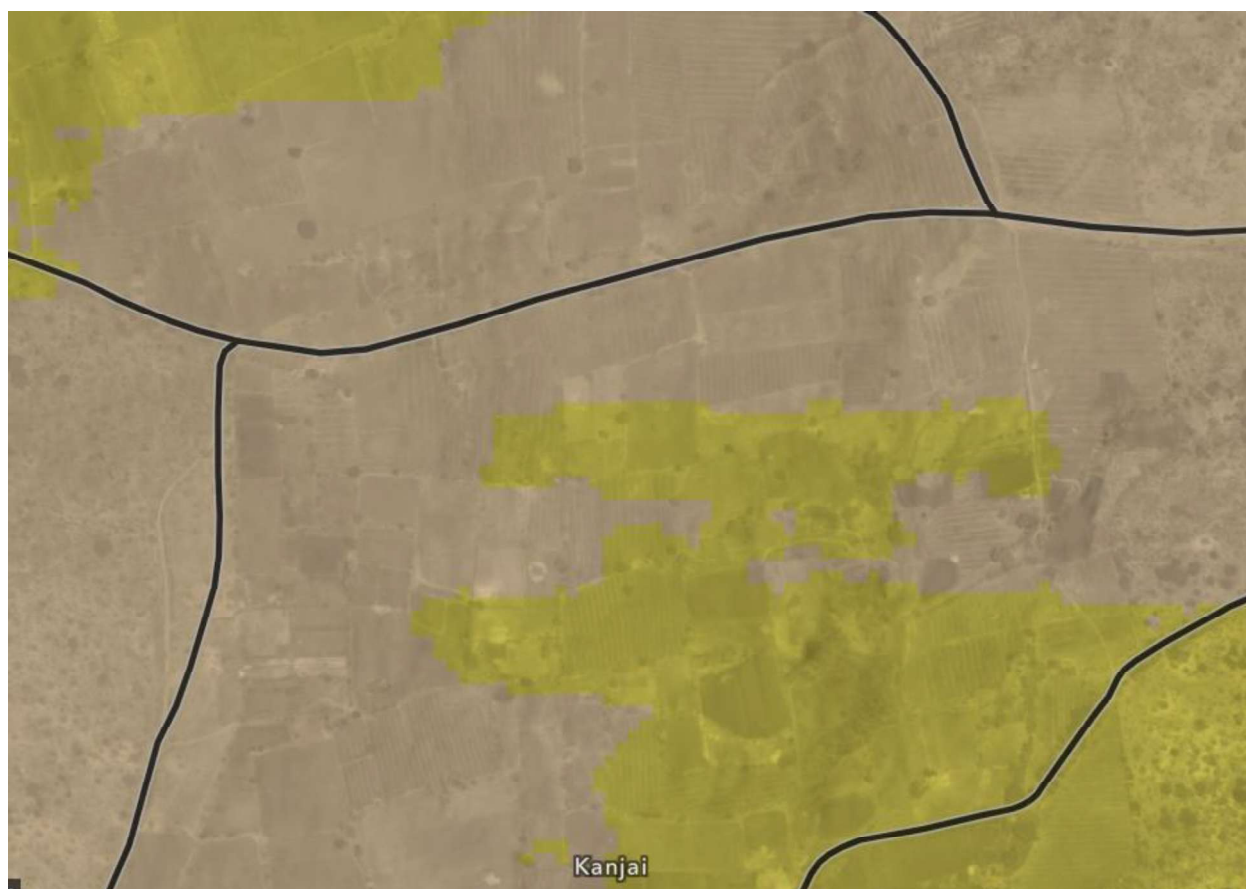
100%

of the respondents shared that they have observed an increase in the presence of birds which was a rare occurrence near the intervention site

During interactions with Panchayati Raj Institution (PRI) members, it was observed that the green cover around the intervention site has increased notably over the past year. This improvement is primarily attributed to the rise in surface water levels, which has enhanced soil moisture and supported better vegetation growth in and around the watershed area. PRI members further noted that the improved water availability has had a positive ecological effect, particularly evident in the increased frequency and diversity of bird visits around the pond

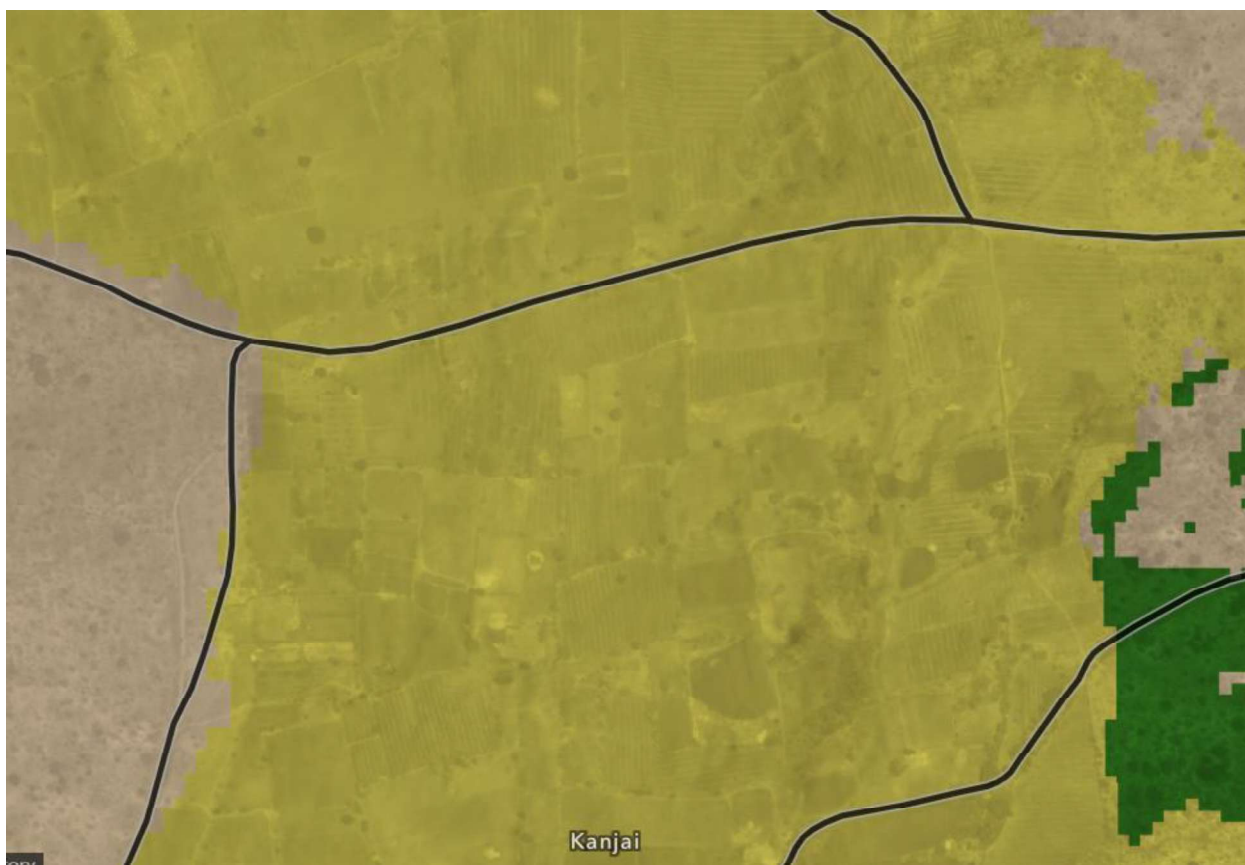
3.5.2 Impact on land cover

2023: Area around Kanjai



Legend	
	Built up area
	Crop Cover
	Water Bodies

During the satellite-based scanning, a **12 percent** increase in cropped area was observed between 2023 and 2025 within the intervention regions. This positive change can largely be attributed to the combined impact of water conservation structures such as check dams, farm ponds, and contour trenches which has improved water availability and soil moisture retention, enabling farmers to bring previously fallow land under cultivation. Additionally, the ongoing awareness activities on Improved Agricultural Practices encouraged farmers to adopt improved techniques like balanced fertilization, seed treatment, and scientific sowing methods, which enhanced their confidence and productivity, ultimately contributing to the expansion of cultivated land. In contrast, areas outside the intervention boundaries did not show notable improvement during the same period. This is partly due to the absence of similar field interventions and partly because of the inherent limitations of Sentinel imagery and ESRI analytical tools. The 10-meter spatial resolution of Sentinel-2 often fails to accurately capture small, fragmented fields or mixed cropping patterns, while issues like cloud cover, vegetation similarity, and algorithmic classification constraints in ESRI platforms can lead to underestimation or misclassification of crop areas. As a result, while the intervention zones show clear and measurable improvement, the analysis in other regions remains less conclusive due to both field conditions and remote sensing limitations.



2025: *Area around Kanjai*

3.5.3 Impact on soil and water quality

Village 1: Umran (Silt not applied)

Sr. No.	Parameter	Test Value	Unit	Rating
1	pH	5.12	–	Acidic
2	EC	0.29	dS/m	Low
3	Organic Carbon (OC)	0.52	%	Medium
4	Available Nitrogen (N)	441.58	kg/ha	Medium
5	Available Phosphorus (P)	75.35	kg/ha	High
6	Available Potassium (K)	59.4	kg/ha	Low
7	Available Iron (Fe)	5.14	ppm	Medium
8	Available Manganese (Mn)	4.51	ppm	Low
9	Available Zinc (Zn)	0.62	ppm	Medium
10	Available Copper (Cu)	0.8	ppm	High

Village 1: Umran (Silt applied)

Sr. No.	Parameter	Test Value	Unit	Rating
1	pH	6.1	–	Acidic
2	EC	0.13	dS/m	Low
3	Organic Carbon (OC)	0.37	%	Low
4	Available Nitrogen (N)	351.58	kg/ha	Medium
5	Available Phosphorus (P)	97.38	kg/ha	High
6	Available Potassium (K)	49.73	kg/ha	Low
7	Available Iron (Fe)	4.83	ppm	Low
8	Available Manganese (Mn)	3.8	ppm	Low
9	Available Zinc (Zn)	0.55	ppm	Medium
10	Available Copper (Cu)	0.83	ppm	High

The soil results from Umran show a mixed impact of silt application. The pH improved from 5.12 to 6.10, indicating the soil is becoming less acidic and moving closer to the desirable range. Electrical conductivity also reduced, reflecting lower salinity. However, organic carbon declined from 0.52 percent (medium) to 0.37 percent (low), suggesting reduced organic matter in silt-applied fields. Nitrogen remained within the medium range but decreased slightly, while phosphorus increased further within the high category. Potassium continued to remain low in both samples, indicating a consistent nutrient gap. Micronutrients such as iron and manganese showed reductions, whereas zinc and copper stayed adequate. Overall, silt application in Umran helped in improving soil reaction and maintaining nutrient availability, though organic enrichment and targeted nutrient corrections are still required.

Village 2: Rojghat (Silt not applied)

Sr. No.	Parameter	Test Value	Unit	Rating
1	pH	5.04	–	Acidic
2	EC	0.15	dS/m	Low
3	Organic Carbon (OC)	0.74	%	Medium
4	Available Nitrogen (N)	504.85	kg/ha	High
5	Available Phosphorus (P)	88.11	kg/ha	High
6	Available Potassium (K)	66.12	kg/ha	Low
7	Available Iron (Fe)	5.76	ppm	Medium
8	Available Manganese (Mn)	4.57	ppm	Low
9	Available Zinc (Zn)	0.64	ppm	Medium
10	Available Copper (Cu)	0.78	ppm	High

In Rojghat, silt application shows a strong positive effect on soil health. **Organic carbon increased significantly** from 0.74 percent to 1.05 percent, **enhancing soil fertility and moisture-holding capacity**. The pH also improved slightly, making the soil less acidic, while salinity levels remained consistently low. Nitrogen stayed high in both samples, and potassium improved from low to medium, indicating a meaningful benefit of silt application. Zinc levels increased to the high category, further strengthening micronutrient availability. Although iron and manganese remained on the lower side, the overall nutrient profile suggests that silt addition has substantially enriched the soil, particularly in terms of organic matter, potassium, and zinc.

Village 2: Rojghat (Silt applied)

Sr. No.	Parameter	Test Value	Unit	Rating
1	pH	5.46	–	Acidic
2	EC	0.16	dS/m	Low
3	Organic Carbon (OC)	1.05	%	High
4	Available Nitrogen (N)	518.07	kg/ha	High
5	Available Phosphorus (P)	68.4	kg/ha	High
6	Available Potassium (K)	142.2	kg/ha	Medium
7	Available Iron (Fe)	4.1	ppm	Low
8	Available Manganese (Mn)	4.55	ppm	Low
9	Available Zinc (Zn)	1.14	ppm	High
10	Available Copper (Cu)	0.72	ppm	High

3.5.4 Impact on water quality

Good (Acceptable)	
Medium (Permissible)	
Harmful (Non-Permissible)	

Indicators	Umrn	Kanjai	Tilipada	Rojghat
pH	6.52	7.11	6.95	6.74
EC (dS/m)	0.68	0.85	0.7	0.64
Total Dissolved Salts – TDS (ppm)	435	544	448	409
Chloride (meq./lit.)	2.88	2.38	2.72	2.39
Calcium (meq./lit.)	2.16	3.84	2.33	2.39
Magnesium (meq./lit.)	6.81	5.84	6.2	6.48
Sodium (mg/lit) *	20.7	25.5	21.2	18.2

As per water-quality regulations, evaluated through Bureau of Indian Standards under IS 10500:2012 and Central Water Commission guidelines, widely followed by State Water Boards, Jal Jeevan Mission, and Public Health Engineering Departments, the water stored across the project check dams falls largely within acceptable to moderately acceptable quality ranges. The pH values from all villages lie within the BIS-recommended 6.5–8.5 band, indicating no concern around acidity or alkalinity. TDS levels (409–544 mg/L) fall between the acceptable (≤ 500 mg/L) and permissible (≤ 2000 mg/L) limits set by BIS, classifying them as moderately mineralized yet safe for use.

Electrical Conductivity (EC), assessed using standard irrigation norms, places the samples within the medium salinity category (0.30–2.0 dS/m), which remains usable for most crops with routine field management. Chloride concentrations are well below the BIS limit of 250 mg/L, indicating no chloride hazard across sites. Although calcium and magnesium vary, they remain comfortably within the permissible hardness limits. Sodium levels, assessed through SAR, remain exceptionally low in all villages, reinforcing no sodium-related risk.

Overall, when interpreted against India's official water-quality standards, the water is considered safe, usable, and agronomically suitable, with only moderate salinity warranting periodic monitoring.

3.6 Case Study



Jayant Vasava, a marginal farmer from Kanjai village in Dediapada taluka of Narmada district, owns just half an acre of agricultural land and had long depended solely on rainfed cotton and pigeon pea crops. With no irrigation facility and extremely limited water availability, his annual income stagnated at around Rs. 30,000, compelling him and his family to take up agricultural labour work to sustain their household.

Over the past three to four years, the 'Water for Livelihoods' project, supported by Asian Paints Limited, has implemented extensive water harvesting interventions across the region to strengthen water security for small and marginal farmers. As part of this initiative, a new check-dam was constructed in Kanjai village in June 2023, creating a reliable source of water storage and groundwater recharge. The structure has brought a transformative change for Jayanti and other farmers in the village.

Fig 1: Farmer from Kanjai village, Dediapada

With assured water availability after the monsoon, Jayanti can now cultivate winter crops such as lentils and other high-value varieties that were previously impossible due to water scarcity. The ability to grow an additional cropping cycle has significantly enhanced his livelihood post-intervention, Jayanti's annual income has increased to nearly Rs. 1,00,000, marking a substantial improvement in his economic stability. This increased income has reduced his dependence on wage labour and strengthened his household's resilience. The check-dam stands as a strong example of how targeted water harvesting measures can directly uplift rural communities, enabling marginal farmers like Jayanti to achieve sustainable cultivation, diversified cropping, and improved financial well-being.

Key impact Areas	Pre-Intervention	Post Intervention
Income	INR 30,000/year	INR 1,00,000/year
Cropping Pattern	Single season cropping (Paddy)	Multi-season cropping (Paddy, Maize, Horticulture)

05

Measuring the Social Return

5 MEASURING THE SOCIAL RETURN

As explained in Chapter 2, this report has used two evaluation frameworks which are OECD-DAC and SRoI. Generally, OECD-DAC helps in gaining a qualitative understanding of the impact. On the other hand, SRoI helps organizations in evaluating changes which are being created by measuring social, environmental, and economic outcomes and providing monetary values to represent them. SRoI also helps in understanding the total value generated for every rupee invested for interventions.

There are two types of SRoI:

- Evaluative, which is conducted retrospectively and based on actual outcomes that have already taken place.
- Forecast, which predicts how much social value will be created if the activities meet their intended outcome.

For this study, both evaluative as well as forecasting SRoI has been considered. SRoI primarily involves six stages which are as follows:

Stage 1: Establishing Scope and identifying key stakeholders

Stage 2: Mapping outcomes

Stage 3: Evidencing outcomes and giving them a value

Stage 4: Establishing impact

Stage 5: Calculating the SRoI

Stage 6: Reporting

Stage 1 and Stage 2 have been discussed in-depth in Chapter 2. Further stages have been elaborated in the ensuing sections.

5.1 Evidencing Outcomes

After creating the impact map, outcome indicators were developed based on interactions with beneficiaries and other key stakeholders such as PRI members and implementation teams. Evidence of these outcomes was gathered through both primary and secondary data sources.

Quantity of Change: The quantity of change for the impact map was calculated by extrapolating responses from the sample to the entire beneficiary population. Based on the data collected, a proportionate percentage of total beneficiaries was estimated to represent the overall impact.

The details about the evidence indicators for the outcomes and the quantity of change against each indicator are provided below:

Duration of Outcome:

Some outcomes are long-term, lasting throughout a beneficiary's life, while others persist only as long as the intervention continues. For this SRoI analysis, impacts from infrastructure-related activities are considered for up to 5 years, whereas intangible interventions such as training are assumed to have an impact for 3 years. These timelines are based on the following assumptions:

- Water resource development creates lasting effects on groundwater and surface water levels, with corresponding economic and social benefits
- Training-based interventions require periodic updates due to technological, market, and climate changes

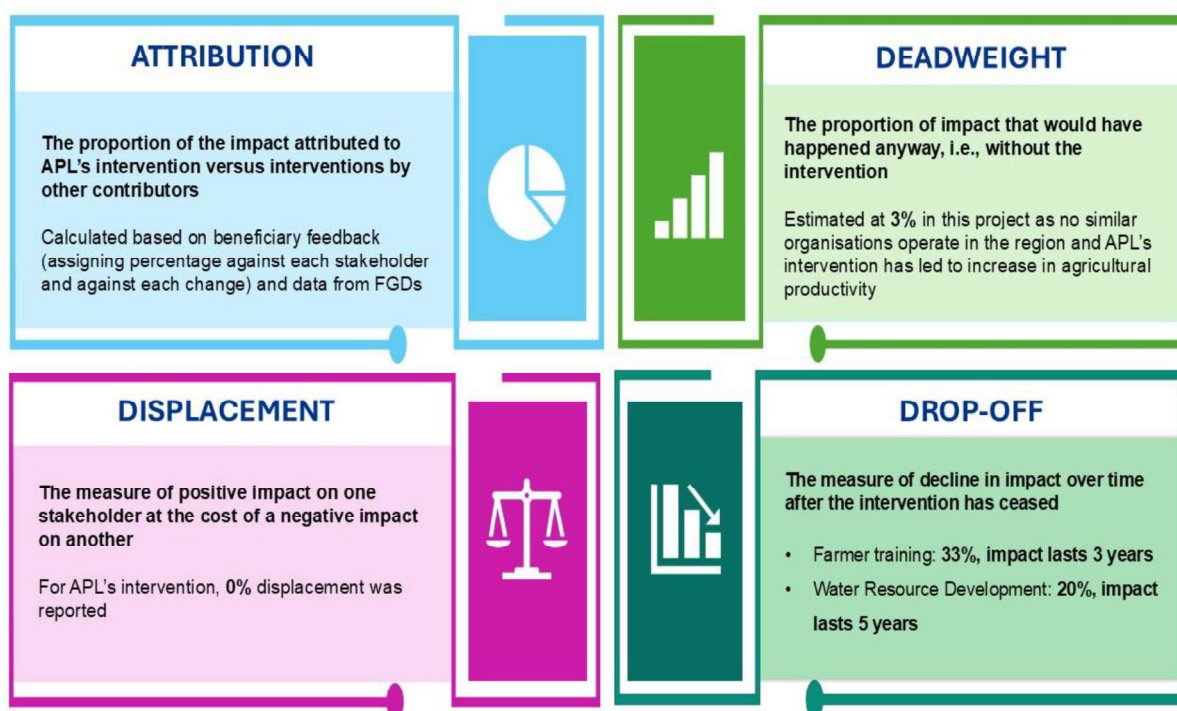
- Based on the nature of interventions and evolving income-generating activities, beneficiary and stakeholder contributions will eventually outweigh the impacts due to initial support from APL

Financial Proxy and Value of Financial Proxy:

To assign value to outcomes, financial proxies were used, following standard practice of using market prices where possible. For intangible outcomes without direct market value, the closest comparable proxy was identified. Refer to the table for outcome-wise details.

5.2 Establishing Impacts

An important part of SROI is 'measuring impact' by accounting for attribution, deadweight, displacement, and drop-off.



5.3 Calculating Impact

$$\text{Impact} = \text{Quantity of outcome} * \text{Financial Proxy Value} * \text{Attribution} - \text{Deadweight} - \text{Displacement} - \text{Drop-off for each year}$$

SRoI is a ratio of cumulative present value for each outcome against the total investment in the project i.e., **SRoI = Total NPV of social value / Total Investment**

Total Input Value: For SRoI calculation, inputs from APL, beneficiaries, and other stakeholders were considered, assuming all contributions collectively created the observed impact. Without any one of these inputs, the current outcomes would not have been achieved. Inputs included financial contributions from APL, beneficiaries, and stakeholders, as well as the time invested by beneficiaries in training and exposure activities. Financial values were provided by APL, while non-financial inputs were estimated in consultation with the APL CSR team.

The below table represents the total cumulative investments from all the stakeholders towards the project from the time period 2024- 2025:

InputType	Inputdescription	Total Inputvalue(INR)
Financial inputs	CSR Funding from APL	1,73,45,640
Total		1,73,45,640

Net Present Value: The Impact Value is adjusted to reflect the Net Present Value (NPV) of the projected outcome values. This is to reflect the present-day value of benefits projected into the future.

A **discount rate of 4 percent** has been used for the NPV calculations.

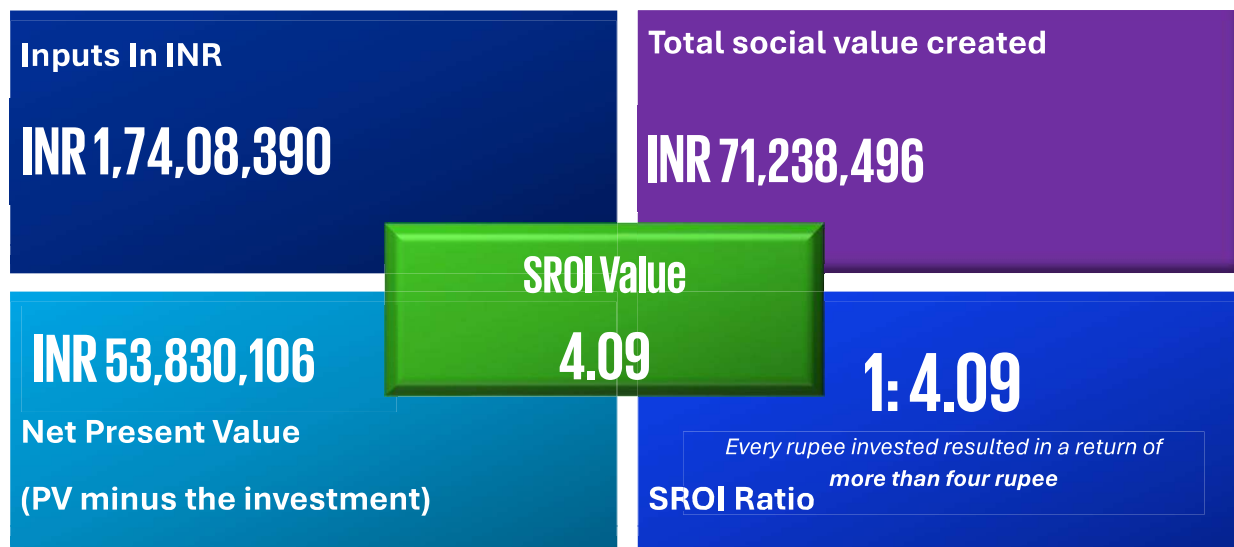
$$\text{SRoI} = \{\text{Total present value of impact} / \text{Total value of input}\}$$

The below table depicts the NPV evaluated as of 2025 and forecasted for 2030 (considering the duration period of 5 years for each outcome):

5.4 SROI Results

The SROI for this analysis- evaluative SROI (as on 2025) and evaluative cum forecast SROI (as on 2029) - is derived from dividing the total present value of the impacts by the total input value of the investment. This is considered because the beneficiaries who have received the support in 2024 would realise the impact for the next 5 years i.e., by 2030.

The below table shows the SROI Value and the SROI Ratio before sensitivity analysis:



For every INR 1 invested, the programme has generated social impact of INR 4.09.

Sensitivity Analysis: Our calculations to arrive at the results provided in this report are relied on a variety of primary and secondary data, but the beneficiary data introduced a higher level of uncertainty. This survey was utilized to estimate the attribution, additionality of APL interventions to specific outcomes, and the duration of time the impact would last.

Sensitivity Analysis was used to test variables and assumptions to ensure that conservative estimates have been used in arriving at the SROI. For each impact area, we tested the impact of using one standard deviation above and below the average response to attribution survey questions.

With sensitivity computation, the value of the APL program can then be stated in a range. For every INR 1 invested, the social value generated is between INR 3.25 and INR 4.36.

Sr. No.	Base case Parameters	Base case SROI	Test case Parameters (Min-Max)	Test case SROI
1	Deadweight	4.09	Deadweight is 0%	4.21
			Deadweight is 5%	4.00
2	Displacement		Displacement 0%	4.10
			Displacement is 10%	3.69

Sr. No.	Base case Parameters	Base case SROI	Test case Parameters (Min-Max)	Test case SROI
3	Attribution		Attribution is 85%	4.36
			Attribution is 75%	3.82
4	Drop-off		Drop-off is 5 years	4.10
			Drop-off is 3 years	3.25

Limitations & assumptions for the SROI study

- The study is limited to the sample of beneficiaries interacted with on-ground during field visits.
- The survey conducted with sample beneficiaries is subjective in nature.
- The study is limited to the recall of the participants in the study.
- The financial proxies are limited to publicly available resources. The financial proxies are representative and based on professional judgement, but it may not be reflective of actual costs incurred due to several considerations. (Refer to Annexure for details of financial proxies)
- The deadweight, displacement, drop off values are derived from the responses from the stakeholders.
- While information obtained from the public domain or external sources has not been verified for authenticity, accuracy, or completeness, we have obtained information, as far as possible, from sources generally considered to be reliable. However, it must be noted that some of these websites/third party sources may not be updated regularly. We assume no responsibility for the reliability and credibility of such information.

06

Way Forward

6 Way Forward

The insights generated through Focus Group Discussions (FGDs) and Key Informant Interviews (KIs) have provided a comprehensive understanding of the community's needs, existing gaps, and the evolving dynamics of water management and livelihood practices in the project geography. These interactions offered valuable perspectives from diverse stakeholders including farmers, women's, Water User Associations (WUAs), and Panchayat representatives highlighting both the achievements and the persistent challenges that influence development outcomes in the region.

Key Observations	Recommendations
WUAs exist but many remain inactive or loosely structured.	The Water User Associations though exists but many are inactive and to revive those WUAs the following approach can be considered: • Ensuring proper mobilization and participation from different stakeholders from the community. • Provision of periodic handholding support to strengthen the functioning of WUAs • Help members clarify roles, hold regular meetings, and gradually take ownership of water-related decisions within their villages. • Conduct frequent trainings and awareness sessions on importance of WUAs and O&M fund
Farmers located at a higher level far from and the check-dams benefit less	Working with community members to provide micro-irrigation support to the farmers whose fields are farther or at a higher elevation than the check-dams, ensuring that water access is more balanced across all households.
Lack of separate O&M Fund	Encouraging farmers to adopt a simple, community-managed contribution system where they should pool small amounts on yearly basis to support timely maintenance of water structures.

7 Annexure

Outputs	Outcome	Indicators	Valuation Approach (monetary)	Monetary Valuation
Construction and refurbishment of Check dams/ Water Harvesting Structures	Creation of sustainable water supply through increment in availability and accessibility of water	Increase in water harvesting capacity (Quantum of Water Potential created or Water Harvested in Cubic Metre)	Groundwater abstraction charges for Drinking and Domestic use (Central Water Commission) per cubic metre	2.00
		Increased availability of water for irrigation - surface water from WHS (Number of farmers x Avg increase in Irrigated landx additional cropping seasons)	Irrigation charges by Gujarat government (per hectare)	314.00
		Increased availability of water in wells / borewells (number of farmers/community members x Avg increase in availability of water in months/days)	Average HH requires 220 LPCD daily and using it for a months gets us the water requirement = 6600/HH/month Charges for purchasing water (One water tanker of 4000 litre capacity) - INR 200/- by Vadodara Municipal Corporation.	330.00

	Increased agriculture production due to increment in availability of water	Increase in availability of Net Sown Area (in Ha) (Number of farmers x Avg increase per farmer)	Average increase in Net sown area indicated by respondents (Ha) Avg Yield of Rice in Narmada district in Fy 2021-22 = 1026 kg/ha MSP of Paddy in Gujarat- 2203/Q	22602.78
		Increase in agriculture produce (Number of farmers x Avg increase in yield in the year)	Average increase in Yield indicated by respondents (Quintals) MSP of Paddy in Gujarat- 2203/Q	2203.00
		Increase in agriculture produce (Number of farmers x Avg increase in yield in the year)	Average increase in Yield indicated by respondents (Quintals) MSP of Maize in Gujarat- 2225/Q	2,225
		Increase in agriculture produce (Number of farmers x Avg increase in yield in the year)	Average increase in Yield indicated by respondents (Quintals) MSP of Tur in Gujarat- 7750/Q	7750
SRI Cultivation	Reduced cost of cultivation due to SRI techniques	Reduced cost of cultivation for paddy farmers using SRI techniques	Average reduction in cost of cultivation per hectare due to SRI (24%)	1775.04
Mulching support	Reduced cost of cultivation due to mulching		Government assistance of 4000/hectare for promotion of mulching	4000
Trainings/ Workshops/ Demonstrations / Non-pesticide management/ Mulching	Increased agriculture production due to enhanced agriculture practice through capacity building FFS	Adoption of improved agriculture practices (% of members indicating adoption of improved agriculture practices)	Cost of training on improved agriculture practices	500.00
Availability of potable water for household consumption due to increased Ground water level and WHS	Increased quality an accessibility to potable water leading to improved health of community members	Reduction in water borne diseases (number of households x % respondents indicating improvement in health)	Mean OOPE (Out of Pocket Expenses) in Rrual areas for all WASH related ailments across all service providers	661
	Increased access to water for animal husbandry activities	Increase in annual income due to availability of quality potable water for cattles and other animals (Number of households x % increase in milk yield)	Average increase in Milk Yield (in Litres per day) x Amount received for 1L of milk from Amul Dairy in Gujarat	55.00

Creation of employment opportunities	Availability of increased labour opportunities locally (own or nearby villages) due to reduced migration	Reduction in migration (seasonal for labour work) (number of members reporting instances of reduced migration x days of work in WHS MGNREGA and/or agriculture)	3 months of Summer season and 8 days of work/month basis MGNREGA gives a total of 24 days of work Minimum wage paid under MGNREGA in FY 2021-22	264.00
Establishing village-level institutions	Community led governance of water resources at village level	Formation of water committees in villages and creation of bylaws for water management in village (Number of village water user groups formed)	Subsidy given for training of Farmer Groups under ATMA scheme (NMAET)	5000.00
	Effective Operations and Management of water resources at village level	Efficient water management in village and repair-maintenance management (Number of water bodies created x Cost of manager)	Assuming one manager is required for management in each village, cost of daily wage paid in MGNREGA for 3 months of Rabi season (when the water harvested is actually utilized by the communities) has been taken as proxy	21060.00
Extended impact on community (beneficiaries and their family members)	Improved wellbeing for the beneficiaries and their family members	Improvement in Health seeking behaviour (Number of respondents reporting increased consumption of self-grown fruits and vegetables))	Basis NSS 68th Round (2011-12), MPCE in Rural areas on Fruits (Rs.41) and Vegetables (Rs.95). Inflation Adjusted Cost (using Cost Inflation Index) for MPCE at 2021-22 prices comes out to be Fruit-70.63/- and Vegetable-163.67/-. For a family of 4 members, the yearly expenditure has been considered for calculation.	11246.61
		Improved sensitization towards child's education (Number of respondents reporting increased spend on child's education)	Basis NSS 68th Round (2011-12), MPCE in Rural areas on Education is Rs.50. Inflation Adjusted Cost (using Cost Inflation Index) for MPCE at 2021-22 prices comes out to be Fruit-86.14/-. For a family of 2 children, the yearly expenditure has been considered for calculation.	2067.36
Extended impact on the environment	Increased green cover due to access to water for extended period/ throughout the year due to WHS	Increased green cover canal/ river due to WHS construction for extended period/ throughout the year (in Metres)	Cost of Sowing/ Dibbling of seeds of grass, trees and shrubs under MGNREGA (cost per metre)	0.58

	Improved soil health due to use of organic fertilizers and pesticides	Farmers spending less on chemical fertilisers and pesticides	Savings due to usage of homemade organic fertilisers/ Reduced expenses of chemical ferlisers = Average Csof of Fertilisers In India per acre	4347.00
	Reduced soil pollution due to reduced chemical usage	Farmers using ploughing to dig lower layer of soil	Per acre ploughing rates for farmers	700.00
	Improved bio-diversity due to availability of water for extended period / throughout the year... (birds/animals from nearby area using the water during summer)	Community members enjoying view of more birds and animals with pleasant environment	Cost of visiting animal zoo/ bird zoo	20.00
Provision of solar panels for lift irrigation	Reduced dependence on electricity for operation of pump	Number of farmers experiencing cost saving owing to solar panels	Cost of electricity consumed for operation of one pump motor One pump motor consumes 22Kwh, cost of per unit kwh= 3.25 22*3.25= 71.50	2860.00
Provision of plant/saplings to the farmers	Improved income diversification	Number of farmers expecting improved income	Cost of a mango sampling at market price	40.00

Water quality classification

Understanding of Result			
	Good	Medium (restricted use)	Harmful
pH	6.50-7.50	6.51 to 8.00	< 6.51 and > 8.01
EC (ds/m)	< 0.30	0.31 to 2.0	> 2.0
TDS(ppm)	< 300	300 to 1000	> 1000
Chloride (meq./lit.)	< 7	7 to 20	>20
RSC	< 1.25	1.25 to 2.5	> 2.50
SAR	< 10	11 to 18	> 18



IMPACT ASSESSMENT OF PARTICIPATORY WATER RESOURCE MANAGEMENT FOR ENHANCING LIVELIHOOD IN VILLAGES OF VIZAG

March 2026

Asian Paints Limited



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Strictly Private and Confidential

Mr. Amit Kumar Singh
Vice-President, Corporate affairs & CSR
Asian Paints Limited
Mumbai, Maharashtra– 400055
India

24 March 2026

Subject: Final report for Impact assessment of CSR Projects

Dear Mr. Amit Kumar,

We appreciate the opportunity to assist Asian Paints Limited in providing **Impact assessment of CSR Projects** related services.

Please find enclosed our final report, which has been prepared in accordance with the scope and terms stated in our engagement letter dated 3rd February 2026. With this deliverable, we have completed our obligations as stated in our engagement letter.

It has been our privilege to have this opportunity to work with you, and we look forward to continuing our relationship.

Yours sincerely

Signed by:



Jignesh Thakkar...

Partner,
KPMG Assurance and Consulting Services LLP

Disclaimer

- *Our report has been prepared solely for Asian Paints Limited. KPMG does not accept or assume any liability, responsibility, or duty of care for any use of or reliance on this report by anyone, other than our Client, to the extent agreed in the Agreement.*
- *Impact assessment is limited to the projects allocated by Asian Paints Limited*
- *OECD DAC and SROI framework has been used in preparing the report as detailed herein. No professional assurance standards ex. ISAE, SSAE etc. have been applied while preparing this report and accordingly the rigors applicable under such standards are not applicable for the scope covered by our report.*
- *Procedures, analysis and recommendations, if any, are advisory in nature basis the information collected from various sources both publicly and those provided by the client.*
- *Our observations represent our understanding and interpretation of the facts based on reporting of beneficiaries and stakeholders.*
- *Our report, by its very nature, may involve numerous assumptions, inherent risks, and uncertainties, both general and specific. The conclusions drawn shall be based on the information available with us at the time of preparing the report.*
- *We shall not perform an audit and shall not express an opinion or any other form of assurance. Further, comments in our report are not and shall not be intended, nor should they be interpreted to be legal advice or opinion. Client shall be fully and solely responsible for applying independent judgment, with respect to the findings included in the report, to make appropriate decisions in relation to future course of action, if any. We shall not take responsibility for the consequences resulting from decisions based on information included in the report.*
- *While information obtained from the public domain or external sources has not been verified for authenticity, accuracy, or completeness, we have obtained information, as far as possible, from sources generally considered to be reliable. However, it must be noted that some of these websites/third party sources may not be updated regularly. We assume no responsibility for the reliability and credibility of such information.*
- *Our work shall be limited to the specific procedures described in this Engagement Letter and shall be based only on the information and analysis of the data obtained through interviews of beneficiaries supported under the programme, selected as sample respondents and discussions with APL team and stakeholders of the programme. Accordingly, changes in circumstances or information available after the review could affect the findings outlined in our report.*
- *In no circumstances shall we be liable, for any loss or damage, of whatsoever nature, arising from information material to our work being withheld or concealed from us or misrepresented to us by any person to whom we make information requests.*
- *In accordance with its policy, KPMG advises that neither it nor any of its partner, director or employee undertakes any responsibility arising in any way whatsoever, to any person other than Client in respect of the matters dealt with in this report, including any errors or omissions therein, arising through negligence or otherwise, howsoever caused.*
- *In connection with our report or any part thereof, KPMG does not owe duty of care (whether in contract or in tort or under statute or otherwise) to any person or party to whom the report is circulated to and KPMG shall not be liable to any party who uses or relies on this report. KPMG thus disclaims all responsibility or liability for any costs, damages, losses, liabilities, expenses incurred by such third party arising out of or in connection with the report or any part thereof.*
- *By reading our report, the reader of the report shall be deemed to have accepted the terms mentioned hereinabove.*

List of Abbreviations

APL	Asian Paints Limited	mS/cm	Milli Siemens per centimeters
ATMA	Agricultural Technology Management Agency	MSP	Minimum Support Price
BCM	Billion Cubic Meters	NITI	National Institution for Transforming India
BIS	Bureau of Indian Standards	NMAET	National Mission on Agricultural Extension and Technology
BOD	Biochemical Oxygen Demand	NPV	Net Present Value
CGWB	Central Ground Water Board	O&M	Operation and Maintenance
CGWB	Central Ground Water Board	OC	Organic Carbon
CPCB	Central Pollution Control Board	OECD-DAC	Organisation for Economic Co-operation and Development-Development Assistance Committee
CSR	Corporate Social Responsibility	OOPE	Out-of-Pocket Expenditure
CWC	Central Water Commission	pH	Potential of Hydrogen
dS/m	Deci Siemens per Meter	ppm	Parts Per Million
EC	Electrical Conductivity	PRI	Panchayati Raj Institution
FGD	Focus Group Discussion	qtl	quintal
FIG/FI	Farmer Interest Group	RFP	Request for Proposal
FPO	Farmer Producer Organization	ROI	Return on Investment
ft	Feet	SAR	Sodium Adsorption Ratio
HH	Household	SDG	Sustainable Development Goal
INR	Indian Rupees	SEZ	Special Economic Zone
IS	Indian Standards	SHG	Self-Help Group
kg/ha	Kilogram per Hectare	SRI	System of Rice Intensification
kg/ha	Kilograms per hectare	SRoI	Social Return on Investment
KII	Key Informant Interview	TDS	Total Dissolved Solids
KPI	Key Performance Indicator	TOC	Theory of Change
LPCD	Litres Per Capita Per Day	tons/acre	Tons per acre
me/L	Milliequivalents per litre	VI	Village Institution
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act	WASH	Water, Sanitation and Hygiene
MIDC	Maharashtra Industrial Development Corporation	WHS	Water Harvesting Structure
MPCE	Monthly Per Capita Expenditure	WUA	Water User Association

Contents

1.	Executive Summary.....	4
2.	Introduction	8
2.1.	Background	8
1.2	Asian Paint Limited	9
1.3	About The Study	9
1.4	About The Project.....	10
1.5	About Implementing Partner	11
1.6	Project Geography.....	11
3.	Approach And Methodology	13
2.1	Our Approach	13
2.1.1	Oecd-Dac	13
2.1.2	Social Return On Investment (Sroi).....	16
2.2	Detailed Methodology.....	18
4.	Analysis And Findings.....	25
4.1.	Demographic Profile	25
4.2.	Impact On Availability And Accessibility Of Water	28
4.3.	Impact On Duration Of The Water Availability	28
4.4.	Impact On Crop Productivity	31
4.5.	Impact On Income From Agriculture	32
4.6.	Impact On Assets Creation.....	33
4.7.	Impact On The Environment	33
4.8.	Case Study	34
5.	Measuring The Social Return.....	36
5.1	Evidencing Outcomes	36
5.2	Establishing Impacts.....	37
5.3	Calculating Impact	38
5.4	SROI Results	39
6.	Way Forward.....	42
7.	Annexures.....	43

01

Executive Summary

1. Executive summary

Asian Paints Limited has imbibed the philosophy of transformation in its DNA and has consistently reinvented the industry. Aligning with this approach, the company's CSR efforts are focused on achieving holistic and sustainable community development. There is a strong emphasis on fostering robust trust-based relationships with communities located in the vicinity of its plants and people in the unorganized sector. These inclusive development initiatives are concentrated on health and hygiene, water conservation, skill development, and disaster management.

Water security has emerged as one of India's most pressing development challenges, particularly in regions where erratic rainfall, declining groundwater levels, and growing agricultural demand intersect. In this context, rural communities dependent on small and marginal landholdings face heightened vulnerability, making participatory and community-centric water management essential for long-term resilience. The Participatory Water Resource Management Project implemented in Vizag seeks to address these systemic challenges through integrated watershed development, groundwater recharge, and improved access to water for both agriculture and domestic needs.

KPMG conducted this impact assessment covering interventions implemented in FY 2023-24, using OECD-DAC and Social Return on Investment (SROI) frameworks and this was conducted using a mixed-method approach. For this study, KPMG interacted in three villages in the Vizag district, including direct beneficiaries and indirect beneficiaries, which include farmers, community members, PRI members and staff of the implementing agency.

Project Objectives

- To increase additional water storage capacity and recharge through revival of traditional water
- To increase the Cultivable land, Water Supply to Fields and income generation to the farmers through the irrigation, Water Harvesting and Irrigation project
- To increase availability and access to clean/safe drinking water in the project villages through the improvement of existing water distribution systems in the villages
- To create awareness, education among the community on the judicious utilisation of water resources and collective actions

Key Output Numbers

1.71 lakh KL
Water potential
created

1,252
Beneficiaries covered

Key highlights from the impact assessment study



Increase in water level in wells/borewells

94% of the respondents reported an increase in groundwater levels, with winter water depth improving from 23 ft to 20 ft, summer levels improving from 37 ft to 27 ft, and monsoon levels staying stable at 5 ft.



Improved water availability for irrigation purpose post-monsoon

The availability of water has extended for 3 to 4 months for 70% of households, 2 to 3 months for 21% of households, while the remaining 9% reported availability for 1 to 2 months, indicating enhanced water retention and sustained irrigation support beyond the monsoon season.





Improved water accessibility for irrigation

100% of the respondents reported improved irrigation water accessibility, with the proportion of beneficiaries rating access as "Good" rising from 14% before the intervention to 86% afterward, while those rating it as "Poor" declined from 45% to 0%, as "fair" rating changed from 42% to 14%.



Improved Mult-season cropping

Owing to improved water availability, 100% of the respondents reported an increase in multi-season cropping. This indicates that reliable water access has directly enabled farmers to cultivate across more seasons.



Improved crop yield (Primary crop: Paddy)

All farmers reported increase in the yield, for the primary crop (paddy) with an average increase in yield by 20%.



Increase in income from agriculture

Prior to the intervention, income levels were comparatively modest and reflective of limited cropping intensity and seasonal dependency. Following the intervention, all villages recorded a substantial rise in agricultural income, with an average increase of 36% in agricultural income.



Impact on livestock

60% of the respondents reported that the increased water availability enabled them to buy additional livestock or that it improved the productivity of existing livestock, leading to an income increase by 36%.



Findings basis IRECS framework

I- Impact

- The interventions in Vizag contributed to notable improvements in water security, with communities experiencing better groundwater recharge and longer availability of irrigation water across seasons. These gains strengthened agricultural outcomes, supporting higher crop yields, increased adoption of multi-season cropping, and improved soil health where silt application was undertaken.

R- Relevance

- Majority of respondents dependent on agriculture
- Interventions such as check dams, desilting, contour trenches, and soil moisture conservation directly respond to the community's need for reliable water access and improved irrigation.

E- Efficiency

- Project completed within set timelines

C- Coherence

- Project Alignment with National Priorities-
- Directly converges with Jal Shakti Abhiyan and 'Catch the Rain' campaign of Ministry of Jal Shakti.
- Project align with the SDGs as mentioned, SDGs 6, SDG 1, SDG 2, SDG 15

S-Sustainability

- 100% of respondents shared that this project has brought a positive change in their life
- 100% of respondents shared good ratings for the project
- Positive impact on biodiversity due to increased surface water availability

SROI – Results

1

Total CSR Investment

INR 2,88,87,0002

2

SROI Ratio

4.0

3

Sensitivity range

₹3.7- ₹4.5 per ₹1 invested.

Based on a total CSR investment of ₹2.88 crore, the project generated an SROI ratio of 4.0, indicating that every rupee invested yielded ₹4.0 in social value. The benefits accrued from increased water availability, a rise in crop yields, expanded irrigated area, reduction in irrigation and cultivation costs, improved household income, and enhanced access to potable water. Environmental gains—including improved green cover, biodiversity, and sustained surface water—also contributed to long-term community wellbeing.

A sensitivity analysis further validated the robustness of the results, showing a social value range of ₹3.7 to ₹4.5 per rupee invested, depending on variations in attribution, deadweight, displacement, and drop-off assumptions. These findings confirm that the program not only creates immediate economic gains but also strengthens long-term resilience through sustained water security, improved agricultural productivity, and enhanced quality of life.

Way forward

The project has delivered strong gains in water availability, agricultural productivity, and community wellbeing. To sustain and deepen these outcomes, the next phase must focus on strengthening community institutions, improving governance mechanisms, and building long-term technical and social capacities. The insights from field interactions highlight several opportunities to enhance the durability, inclusiveness, and scalability of the interventions.

A key priority is to revitalize Water User Associations (WUAs) by clarifying their roles, building their capacities, and institutionalizing water budgeting, crop planning, and routine operation and maintenance (O&M) practices. Strong WUAs will ensure equitable water distribution, prevent over-extraction, and coordinate seasonal planning aligned with groundwater recharge trends. Additionally, women's participation needs to be significantly strengthened across all stages—planning, monitoring, and decision-making—to ensure socially inclusive governance and improve sustainability. Targeted gender mainstreaming and leadership-building initiatives can help close existing participation gaps.

From a technical perspective, the project will benefit from enhanced hydrogeological planning, including the establishment of control wells to compare water level fluctuations and improve scientific monitoring. Elevation-specific solutions—such as gravity-fed systems, elevated storage structures, or solar-powered pumps—can address water access challenges in high-altitude hamlets. Partnerships with PRIs and district-level agencies should be leveraged to converge government schemes and funding, enabling scaling of effective water conservation models across neighbouring geographies. Strengthening community ownership, ensuring regular O&M, and building institutional convergence will support the long-term resilience and impact of the water stewardship efforts.

2. INTRODUCTION

This chapter consists of an overview of the water stress in Indian context and Asian Paints Ltd.'s CSR efforts to address the issue. It provides an overview of the project, implementing partners, project geographies, scope, and purpose of the study.

2.1. Background

Water security has reached a critical inflection point in India because of rapid development, population pressure and climate volatility. As of 2025, India sustains approximately 18% of the global population with only 4% of the world's freshwater resources.¹ The NITI Aayog Annual Report (2024-25) warned that the country's average per capita water availability is projected to decline to 1,341 cubic meters by late 2025, pushing the nation further into the "water-stressed" category (threshold < 1,700 m³) and nearing the "water-scarcity" limit of 1,000 m³.² With abundant flow in Ganga and Brahmaputra basins and much lower availability in west and south-western basins, regional disparities exist that make proper management of local demand essential.

India's water budget remains heavily dependent on a fluctuating monsoon and there are both quantity and quality concerns with groundwater. According to the Dynamic Ground Water Resource Assessment (2024) published by Central Ground Water Board (CGWB), the total annual groundwater recharge is estimated at 446.90 Billion Cubic Meters (BCM), with an annual extractable resource of 406.19 BCM. While the average extraction rate is 60.47%, regional disparities are severe. Out of a total of 6,746 assessment units, approximately 11.1% of assessment units, primarily in Punjab, Haryana, Rajasthan, and Delhi, are classified as "over-exploited", where extraction exceeds natural replenishment.³ On groundwater quality, CGWB's Annual Ground Water Quality Report 2024 highlights localized exceedances of nitrate, fluoride, and arsenic in shallow aquifers across different states, varying seasonally with recharge and agricultural inputs.⁴ The report mentions Triple Contamination Challenge in India's groundwater, referring to the three most widespread contamination threats, each stemming from different sources- nitrate (anthropogenic), fluoride (geogenic) and salinity/electrical conductivity (EC).

Surface water pollution is another important concern. Around 70% of India's surface water is contaminated, ranking the country 120th out of 122 on the global Water Quality Index. Central Pollution Control Board's latest report titled "Polluted River Stretches for Restoration of Water Quality" identifies 150 polluted stretches nationally, including 35 Priority-1 segments where Biochemical Oxygen Demand (BOD) is greater than 30 mg/L. Wastewater from various sources, intensive agriculture, industrial activities, and untreated urban runoff contribute to this pollution, compromising the health of both humans and aquatic ecosystems.

Climate change has added to the risk of water stress. In 2024-25, India experienced a 55% increase in record heatwaves, accelerating evapotranspiration and increasing the demand for irrigation which consumes over 80% of freshwater in rural areas.⁵ Because of climate change, the monsoon pattern has become erratic, characterised by long dry spells followed by intense cloudbursts. When this happens, the natural soil infiltration is affected which results in flash floods and reduced aquifer recharge.

¹ United Nations World Water Development Report 2024, sourced at <https://unesdoc.unesco.org/ark:/48223/pf0000388948>

² NITI Aayog Annual Report 2024-25 [NITI AAYOG, India | Annual Report 2024-25](#)

³ [Press Release: Press Information Bureau](#)

⁴ CGWB Annual Ground Water Quality Report 2025 [CGWB - Publications Repository](#)

⁵ [India's Water Crisis: Why Climate-Resilient Governance is Urgent](#)

In this challenging water landscape, the importance of watershed management becomes apparent. Watershed management is not merely a focus on water projects but involves a holistic approach to land-use practices, afforestation, and soil and water conservation. Watershed approaches work at the hydrological unit where supply, demand and quality intersect. Steps like planting trees and protecting stream banks, building small check-dams and farm ponds, contouring fields to slow water, using drip/sprinkler irrigation and involving local communities in simple monitoring make more rain soak into the ground, reduce silt in reservoirs, steady flows in the dry season and improve drinking-water availability. Such a holistic approach that addresses not only water scarcity but also soil conservation and natural resource management is crucial for ensuring a sustainable and resilient water future for the country.

1.2 Asian Paint Limited

Asian Paints, headquartered in Mumbai, is one of the largest paint companies in India. Started in 1942, the company currently operates in 14 countries with products sold in over 60 markets. Asian Paints operates in various segments, including decorative paints, industrial and automotive coatings, and home décor products like furniture, lighting, and wallpapers. APL focuses heavily on research and development, which helps it keep introducing new and improved products. The company has also launched eco-friendly and sustainable paints, in line with the growing global preference for environmentally responsible solutions.

Asian Paints goes beyond its core business by actively contributing to social and environmental well-being through its Corporate Social Responsibility (CSR) initiatives. Guided by its values of trust, fairness, and care, the company focuses on creating long-term impact in communities around its operations. Its programmes address key areas such as water conservation, healthcare and skill development, leveraging its expertise to deliver meaningful change. The objective is to empower marginalised communities and improve quality of life by tackling critical social, economic, and environmental challenges. These efforts are closely aligned with the United Nations Sustainable Development Goals (SDGs), particularly, Goal 1 (No Poverty), Goal 2 (Zero Hunger), Goal 3 (Good Health and Well-being), Goal 6 (Clean Water and Sanitation), Goal 8 (Decent work and economic growth), Goal 11 (Sustainable cities and communities) and Goal 17 (Partnership for the goals).

Asian Paints runs several initiatives in water conservation, health and hygiene, skill development, and disaster relief. Its flagship Water Stewardship Program called the Watermark program, focuses on improving water availability and security in communities around its plants. The program combines supply-side measures like pond cleaning, desilting, check-dam construction and renovation, canal lining, and integrated watershed management with demand-side interventions such as micro-irrigation, System of Rice Intensification (SRI), and sustainable farming practices. These efforts aim to restore water bodies, reduce soil erosion, and recharge groundwater, while promoting efficient water use in agriculture. By adopting a holistic approach that includes soil health and pest management, Asian Paints helps strengthen ecosystem services and improve livelihoods.

1.3 About the Study

To understand the impact created by its interventions implemented in FY 2023-24, Asian Paints Ltd. empanelled KPMG to facilitate the impact assessment of its **Participatory Water Resource Management project**. The objective of this study was to assess the impact of these water stewardship activities on the beneficiaries and stakeholders covered under the projects. The study aimed to understand the immediate, medium, and longer-term impact of the interventions on the targeted beneficiaries:

The duration considered for this study is financial year 2023-24.

Impact on Access & Availability of Surface & Ground Water	• To understand the impact on ground-water recharge based on well recharge data • To understand the duration of water availability post-monsoon (in months) • To understand the impact of water accessibility, availability & livelihood of the farmers
Impact on Potable Water	• To assess the impact on drinking water availability and quality due to rainwater water harvesting structures. • To assess impact on other areas like drudgery reduction, drop in health issues around the drinking water etc.
Impact on Agricultural Land & Practices	• To assess impact on season wise cropping pattern led by the availability of water in the area. • To assess impact on soil health due to balance use of fertilizer because of adoption of recommendations of soil testing report and application of organic fertilizers • To assess impact on knowledge level of the farmers about improved agricultural practices.
Impact on Farmer's Livelihood	• To assess impact of water availability on crop production (yield/acre) • To assess impact of water availability on productivity of livestock animals • To assess impact on net return/acre per farmer. • To assess the impact on livelihood opportunities created through the programme.
Other Impact Areas Apart from Water Rejuvenation & Canal Lining	• To assess knowledge and adoption level of water efficient agricultural and risk mitigation farm practices. • To assess level of ownership by the community in the asset created: Whether community-based institutions had been formed and taking care of maintenance aspects of the assets created under the project.

1.4 About the project

Asian Paints' Water Stewardship Programs signifies the company's dedication to sustainable practices and responsible corporate citizenship. By addressing the challenge of water scarcity through community partnerships and integrated initiatives, Asian Paints aims to make a positive impact on both its operations and the communities it serves.

The Participatory Water Resource Management Project in Vizag aimed to enhance water security and improve rural livelihoods through integrated water management solutions. The initiative focused on rejuvenating traditional water bodies, constructing water harvesting structures, and improving irrigation channels to increase water storage and recharge capacity. It also included interventions for safe drinking water access in schools and villages, alongside community awareness programs promoting judicious water use and collective action. By combining infrastructure development with capacity-building and water literacy, the project sought to strengthen agricultural productivity, improve health outcomes, and create sustainable livelihood opportunities for rural communities.

The objectives of the project are:

- To increase additional water storage capacity and recharge through revival of traditional water bodies and construction of water structures.
- To increase the cultivable land, water Supply to fields and income generation to the farmers through the water harvesting and irrigation project.
- To increase availability and access of clean/safe drinking water in the project villages through improvement of existing water distribution systems in villages
- To create awareness, education among the community on judicious utilization of water resources and collective actions

1.5 About implementing partner

Ambuja Foundation (ACF), the CSR arm of Ambuja Cements, was established in 1993 to foster rural transformation through a participatory and sustainable development model. Operating across 13 states in India, ACF addresses critical development challenges through a multi-sectoral approach that includes water resource management, agriculture, skill development, healthcare, education, women's empowerment, and rural infrastructure. Guided by its "True Value" framework, the Foundation emphasizes community ownership by engaging local stakeholders in needs assessment, planning, implementation, and monitoring, ensuring that projects are tailored to local contexts and deliver long-term impact. In recent years, ACF has amplified its reach and impact, with emphasis on rejuvenation of water bodies, promotion of agro-based and vocational livelihoods, and implementation of health and education interventions.

1.6 Project Geography

Visakhapatnam, located along the eastern coast of India in Andhra Pradesh, lies between the Eastern Ghats and the Bay of Bengal. This unique setting creates a mix of hilly terrain, valleys, and coastal plains. The city's main water sources include the Meghadri Gedda reservoir, Gambhiram Gedda reservoir, Raiwada reservoir, and seasonal streams (geddas) flowing from the surrounding hills.

Vizag receives most of its rainfall from the Southwest and Northeast monsoons, but rainfall is uneven and concentrated in a few months, leading to seasonal water scarcity. Rapid urbanization, reduction of natural wetlands, and siltation in reservoirs have put additional pressure on the city's water systems.

Because of its geography steep slopes causing runoff, coastal zones vulnerable to saltwater intrusion, and limited perennial rivers water conservation strategies such as rainwater harvesting, watershed development, reservoir desiltation, and protection of hill-stream catchments are critical for sustainable water security in Vizag

02

Approach & Methodology

3. APPROACH AND METHODOLOGY

The chapter provides details on the research design and methodology adopted for the impact assessment. It includes description of the key activities, data collection methods, and sampling strategies, employed to ensure the reliability and validity of the findings.

2.1 Our Approach

The study applied the OECD DAC and SROI frameworks to design the evaluation and measure the social returns and impacts generated by APL's CSR projects on water stewardship. The OECD DAC framework is a globally recognized approach for assessing the effectiveness of social development programs, while the SROI methodology goes beyond traditional economic metrics to capture broader social and environmental value.

A structured four-phase methodology was adopted to ensure a comprehensive evaluation. This approach integrated the principles of both OECD DAC and SROI throughout the process, enabling a robust assessment of outcomes and the overall impact of the program.

Phase I: Consulting and Scoping	Phase II: Research Design	Phase III: Data Collection	Phase IV: Analysis and Reporting
Kick-off meeting	Development of Impact Map	Development of field visit plan	Analysis of collected data using OECD DAC framework and estimating the SROI of the projects
Desk review of documents and reports related to the program	Mapping the stakeholders	Field visits and stakeholder interactions	Development of draft and final report
Determining the scope of the study	Designing sampling strategy and data collection tools		Presentation to APL Team

2.1.1 OECD-DAC

The Organization for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) introduced its evaluation criteria in 1991 as a structured framework for assessing development programs, whether ongoing or completed. This approach enables a systematic review of multiple dimensions of a program, offering both qualitative insights and quantitative measures of impact. The framework is widely recognized for its ability to evaluate effectiveness and relevance in social development initiatives. It is built around the following six key criteria, which form the basis for comprehensive program assessment under the OECD-DAC guidelines:



These evaluation criteria have been defined below along with illustrative questions:

Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
Relevance	A measure of the extent to which the intervention objectives and design respond to beneficiaries, global, country, and partner/institution needs, policies, and priorities, and continue to do so if circumstances change. ▪ To what extent are the objectives of the project still valid? ▪ Are the activities and outputs of the project consistent with the overall goal? ▪ Are the activities and outputs of the project consistent with the intended impacts and effects?	<i>Commitments of the stakeholders are integrated into Project design and planning</i>
Effectiveness	A measure of the extent to which the intervention achieved, or is expected to achieve, its objectives, and its results, including any differential results across groups. ▪ To what extent were the objectives achieved / are likely to be achieved?	<i>Achieved cross-cutting objectives during project implementation</i>

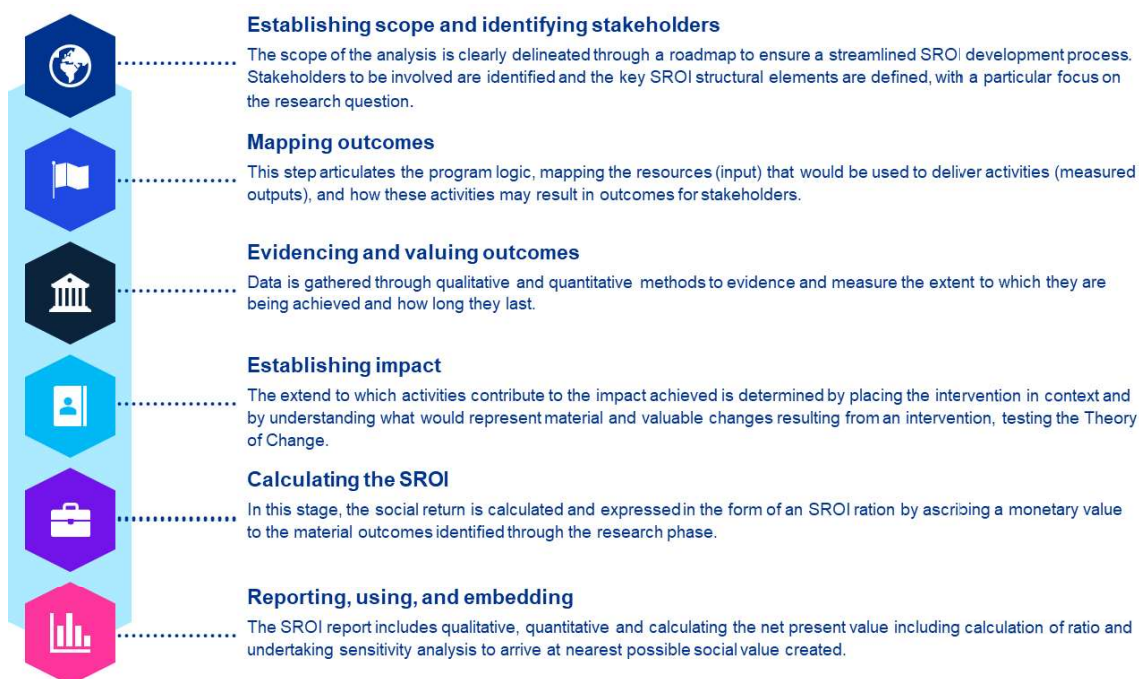
Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
	What were the major factors influencing the achievement or non-achievement of the objectives?	
Efficiency	A measure of the extent to which the intervention delivers, or is likely to deliver, results in an economic and timely way. - Were activities cost-efficient? - Were objectives achieved on time? - Was the project implemented in the most efficient way compared to alternatives?	<i>Resources are provided and efficiently used for participation of all stakeholders</i>
Impact	A measure of the extent to which the intervention has generated or is expected to generate significant positive or negative, intended, or unintended, higher-level effects. - What has happened as a result of the project? - What real difference has the activity made to the beneficiaries? How many people have been affected?	<i>Achieved real and long-lasting positive changes in the lives of intended beneficiaries</i>
Sustainability	A measure of the extent to which the net benefits of the intervention continue or are likely to continue. - To what extent did the benefits of a project continue after donor funding ceased? - What were the major factors which influenced the achievement or non-achievement of sustainability of the project?	<i>Likelihood that project achievements will continue after project</i>

Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
	What can be some of the innovative ways to make the project sustainable in the long run?	
Coherence	A measure of the extent to which the intervention is compatible with other interventions in a country, sector, or institution. - Does the project address the synergies and interlinkages between the intervention and other interventions in the same organisation and in the same sector/policy landscape? Does it weaken or enhance the impact of any current programs or policies? - Does the program lead to duplication of efforts?	<i>The extent to which other interventions (particularly policies) support or undermine the intervention and vice versa.</i>

2.1.2 Social Return on Investment (SROI)

Social Return on Investment (SROI) is a structured approach designed to capture and measure the broader value created by an investment. It covers the social, environmental, and economic benefits that traditional cost-benefit analyses often overlook. This methodology assigns monetary values to social and environmental outcomes, enabling organisations to calculate how much value is generated for every rupee spent on a program. Unlike conventional assessments, SROI focuses on changes that matter most to stakeholders, providing a clear picture of the social impact of projects and policies.

By using SROI, organisations can demonstrate the social value their initiatives deliver, gain deeper insights into stakeholder impact, and integrate these findings into strategic decision-making. It is fundamentally about value rather than just financial returns and can be applied to an entire organisation or a specific program. The approach uses a theory of change or impact map to outline how interventions lead to measurable outcomes, expressed in monetary terms, allowing for a benefit-to-cost ratio calculation. SROI combines qualitative, quantitative, and financial data, along with case studies, to inform future planning. Its key advantage lies in going beyond identifying outcomes to valuing them and calculating their social worth. Steps of a SROI are as follows:



Setting the Scope 	Identification of stakeholders including beneficiary group, finalising the scope- setting the boundary of what is going to be considered for evaluative SROI - stakeholders including beneficiaries, impacts, program period, etc.
Mapping Outcomes 	Creating impact map, identifying investments, and valuing inputs, identifying outcome sand indicators for monitoring / evidencing outcomes
Evidencing Outcomes 	Collecting and analysing outcome data and establishing how long the outcome will last
Establishing Impacts 	Identifying and valuing financial proxies, adjusting outcomes using deadweight, displacement, attribution and drop off, calculating the impact
Calculating SROI 	Programming the value of outcome into future based on the duration for which the impact will last, calculating the net present value including calculation of ratio and undertaking sensitivity analysis.

The process of calculation of SROI largely focuses on deadweight, displacement, attribution, and drop-off in association with any outcomes achieved. All these aspects are generally expressed as percentages and these percentages are applied to the financial proxy of each outcome to arrive at the total impact for the outcome. Therefore, we used a customised framework involving a combination of OECD-DAC and SROI to obtain a full picture of the impact created by APL.

2.2 Detailed Methodology

The following section discusses the methodology being employed by KPMG in this impact assessment, which has been broken down into four phases.

PHASE I: CONSULTING AND SCOPING

Activity 1: Inception Meeting

The initial step involved a scoping and kick-off meeting between the KPMG team and APL to finalize the work plan. The key tasks, timelines, and approach for the engagement were discussed. A detailed project plan was prepared by KPMG to guide the execution.

Activity 2: Desk Review and Stakeholder Engagement

The team conducted a thorough review of documents provided by APL, including concept notes, annual reports, and progress or closure reports. Secondary research was also conducted to gain an in-depth understanding of the project locations and interventions. Additionally, discussions with APL and implementing partners helped clarify KPIs, map external stakeholders, and define the sampling strategy and size.

PHASE II: RESEARCH DESIGN

Activity 1: Developing the Impact Map / Theory of Change

An impact map based on the theory of change was created to define the project's outcome and impact parameters. This map serves as a logical framework that illustrates how inputs (actions or activities undertaken) lead to outputs (immediate changes resulting from interventions), which then drive outcomes (short- or medium-term effects linked to those outputs) and ultimately generate impact (positive or negative, intended or unintended, direct or indirect) arising from the interventions.

Refer next page for the impact map

Activity 2: Stakeholder Mapping and Sampling strategy

Stakeholder mapping is the process of identifying all the stakeholders involved in a project and their roles and responsibilities on one map. The main benefit of a stakeholder map is to get a visual representation of all the people who can influence the project and how they are connected. Stakeholders who experience change, whether positive or negative because of the interventions carried out were considered for the study. Furthermore, their pertinence to the scope of the study and relevance to the overall analysis were assessed.

Impact Map

Stakeholder	Project Objectives	Inputs	Output	Outcome	Evidence Indicator
Farmers, Community members FPO/VI/WUA	To promote basic supplementary irrigation facilities by creating and strengthening water harvesting structures and increase water storage and availability; To improve and stabilize surface soil to convert unirrigated land to irrigated land. To organize and strengthen the village institutions around water harvesting and related livelihoods	Construction and refurbishment of check dams, ponds and other WHS, Capacity building, Access to Finance, Time	Number of families reached out / availed benefits of check dams and other water harvesting structures	Increase in agricultural production	Changes in availability of cultivated land Changes in cropping pattern by farmers Changes in multi-seasonal cropping
				Access to secure livelihood	Changes in the input cost required for agriculture
				Creation of sustainable water supply	Changes in the irrigation fed agriculture, changes in the availability of water, reduced dependency on the other sources of water
			No. of families benefited from Group wells & Borewell	Creation of employment opportunities	Changes in the labour employment by the local population
				Access to potable water	Reduction in water borne diseases (Improvement in health), reduction of drudgery (time saved)
				Access to secure livelihood	Changes in the input cost required for agriculture, adoption of improved agriculture practices
			No. of village institutions benefited	Establishing community stewardship over the common water resources	Community led governance of its resources, effective operations, and maintenance of water structures
			Increase in water storage capacity	Improved biodiversity in the catchment area	Increase in biomass in command area, Improved bio-diversity – presence of bird and animal species, Improved soil health, Reduced soil pollution.



Sampling of stakeholders for engagement was done based on the materiality of the stakeholder and the extent of the impact on the stakeholder. Considering the overall outreach of the project as nearly 1252 beneficiaries. The stakeholder-wise mode of interaction has been detailed out below:

Stakeholder type	Universe	Sample	Actual coverage
Farmers Benefitted due to water intervention	1252	100	100
PRI Members Members from benefitted village	-		6

Stakeholder	Reason for Inclusion	Data collection tool
Farmers who have been benefitted due to water harvesting related interventions	Since the farmers are the direct beneficiaries of this study hence it is important to include them to understand if the objectives of this program have been met.	Structured Questionnaire: were developed In-depth Interview: were also undertaken
Farmers who have been benefitted due to agriculture related interventions	Agriculture is a key intervention, Hence, it is critical to get their perspective of the beneficiaries	Structured Questionnaire: were developed for farmers In-depth Interview: were also undertaken
Community members benefitted due to potable drinking water	The community members from the intervention area have been a key stakeholder and receiver of the impact hence, it is important to get their perspective.	Semi-structured Questionnaire: were developed for community members
WUA members	In order to understand the governance mechanism established over the water usage, these stakeholders are important	Structured Questionnaire: were developed In-depth Interview: were also undertaken
PRI Members and government officials	To understand holistic view at village level or administration level	Structured Questionnaire: were developed In-depth Interview: were also undertaken
Stakeholders excluded from the study		
Community members from periphery of intervention villages	Excluded - It was understood from the implementing team that due to no direct intervention, these stakeholders will remain outside the scope of the intervention	Not applicable

The study includes three categories of beneficiaries: primary, secondary, and tertiary. Farmers, as the direct and intended recipients of project interventions, constitute the primary beneficiaries. Their family members and other community stakeholders constitute the secondary beneficiaries. Additionally, interactions were conducted with institutional stakeholders such as Panchayati Raj Institution (PRI) representatives and government officials, who constitute the tertiary stakeholders.

Activity 3: Development of Data Collection Tools

The study adopted a mixed-methods approach, combining quantitative and qualitative techniques for data collection and analysis. Initially, a comprehensive desk review was conducted to assess existing knowledge and identify gaps for further investigation. Following the literature review and research design, survey instruments were created based on the impact map to gather both quantitative and qualitative data from a sample population using offline methods. These tools captured participants' experiences, attitudes, and behaviors. Additionally, semi-structured interviews were designed for key stakeholders, including experts, PRI members, government officials, community leaders, and practitioners, to gain deeper insights into the research topic and emerging best practices. All tools were aligned with program objectives and the scope outlined in the RFP, with additional questions incorporated to enrich the case study. The tools developed include:

- Tools for individual interactions
- Tools for focus group discussions
- Tools for other key stakeholder interactions
- Development of a research and data collection plan

PHASE III: DATA COLLECTION

Activity 1: Development of Field-Visit Plan

Stakeholder interactions were planned in coordination with APL and the project implementing partner. A detailed timeline was prepared for the field visits, with the implementing partner providing support for scheduling meetings, mobilizing stakeholders, and arranging translators where necessary. The team also consulted with the partner to anticipate potential challenges such as language barriers, cultural sensitivities, or safety concerns. These measures ensured that the data collection process was efficient and conducted in an ethical manner.

Activity 2: Conducting Field Visits

Stakeholder consultations were carried out through individual interviews, focus group discussions (FGDs), and key informant interviews (KII). To ensure effective communication, KPMG included facilitators with prior experience and proficiency in local language. The data collection team underwent training and sensitization sessions to engage stakeholders appropriately. Before the main exercise, tools were pre-tested. Throughout the process, data collection was closely monitored for completeness, accuracy and consistency, including backchecks and triangulation.

PHASE IV: ANALYSIS AND REPORTING

Activity 1: Data analysis and preliminary findings

During the data analysis, both qualitative and quantitative analysis were conducted on the data collected. To enhance accuracy and reliability, the findings from the quantitative data collected on the ground were triangulated to an extent. The collected information was thoroughly analysed on a location disaggregated basis, allowing for a detailed understanding of the specific areas involved. To calculate the social returns

and impacts resulting from the program, the SROI framework and OECD-DAC framework were utilized. Additionally, a sensitivity analysis was conducted to examine the results of the ROI. The data and observations obtained during the primary data collection phase and document review were carefully analysed to inform report writing. The findings were further scrutinised basis the assurance standards for SROI assessments.

Activity 2: Development of Report and Presentation

A comprehensive report was prepared for Asian Paints Limited at the enterprise level, capturing key observations, analyses, findings, and recommendations from the assessment. The report adhered to OECD-DAC and SROI framework guidelines to ensure accuracy and relevance. A draft version was shared with APL for review and feedback prior to finalisation. The finalised report was then presented to APL's leadership. Additionally, separate project-level reports were developed, providing detailed data and analysis. All collected data and corresponding analyses were also shared with APL.

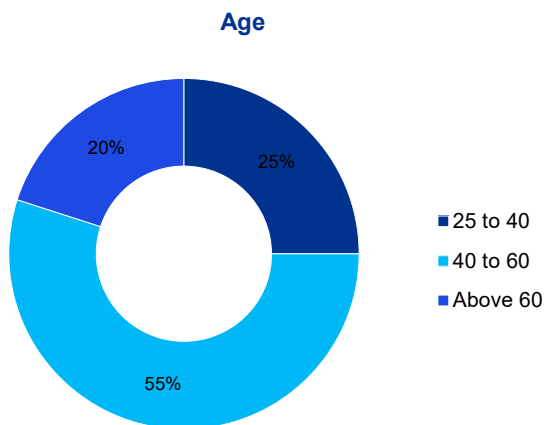
03

Analysis and Findings

4. Analysis and Findings

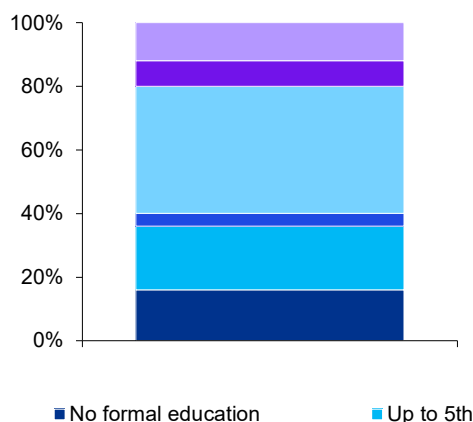
4.1. Demographic profile

Age



The beneficiary base is skewed towards the 40–60 age group (55%), indicating that middle-aged adults are the primary participants/decision-makers in the project. Young adults (25–40) form 25%, suggesting moderate engagement from the working-age cohort, while older adults (60+) account for 20%, indicating a meaningful but smaller segment that may require age-friendly access and support.

Education



Education

The beneficiary group is predominantly educated up to secondary level: 40% up to 10th. A considerable share has limited schooling (16% no formal, 20% up to 5th, 4% up to 8th). Overall, 80% have education up to 10th or below, while 20% have higher secondary or above (8% up to 12th, 12% beyond 12th).

Seasons of cultivation

Primary source of income

100%

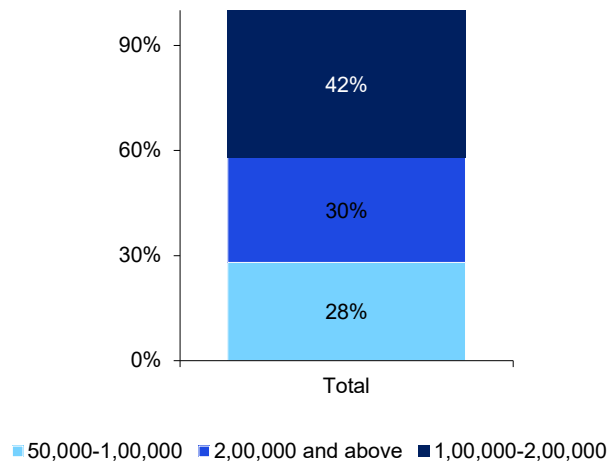
All respondents reported that they are engaged in agriculture, which serves as their primary source of income.

This indicates a community that is highly dependent on agriculture for livelihood and is therefore directly influenced by the availability and reliability of water resources. The exclusive reliance on agriculture underscores the importance of water conservation interventions, as improvements in water access, storage, and management are likely to have immediate and significant impacts on household income, crop productivity, and overall resilience. No significant secondary sources of income were reported by the beneficiary

Household Income

Primary source of income

Household income (unit in INR)

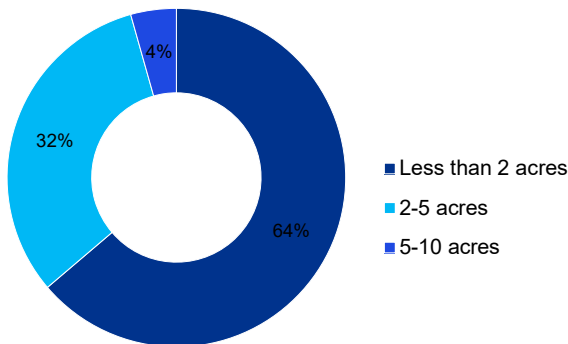


The household income distribution indicates that a majority of respondents fall within the ₹1,00,000–₹2,00,000 annual income bracket (42%), representing lower-middle-income agricultural households. Additionally, 28% of respondents earn between ₹50,000–₹1,00,000, reflecting a significant proportion of economically vulnerable households. A comparatively smaller segment (30%) reports incomes of ₹2,00,000 and above, suggesting the presence of relatively better-off households within the community.

This distribution highlights that a substantial share of respondents operate within low and lower-middle-income categories, underscoring the importance of water conservation initiatives in enhancing livelihood stability. Improved water availability can directly influence agricultural productivity and income security for the majority of beneficiary households.

Land Holding pattern

Land Holding Pattern



The landholding pattern of the respondents indicates a predominantly smallholder agricultural community. A significant majority (64%) possess less than 2 acres of cultivable land, reflecting high dependence on marginal landholdings for livelihood. Small and marginal farmers typically face constraints related to limited water availability, lower productivity, and high vulnerability to climatic variations, making water conservation interventions highly relevant and impactful for this segment.

In addition, 32% of respondents hold 2–5 acres, while only 4% possess 5–10 acres of cultivable land. This distribution shows that medium-scale farmers form a smaller proportion of the beneficiary base. The overall pattern underscores the need for project strategies that prioritize efficient water use, enhance soil moisture

retention, and improve irrigation access for small and marginal farmers, who constitute the largest and most vulnerable group within the project area.

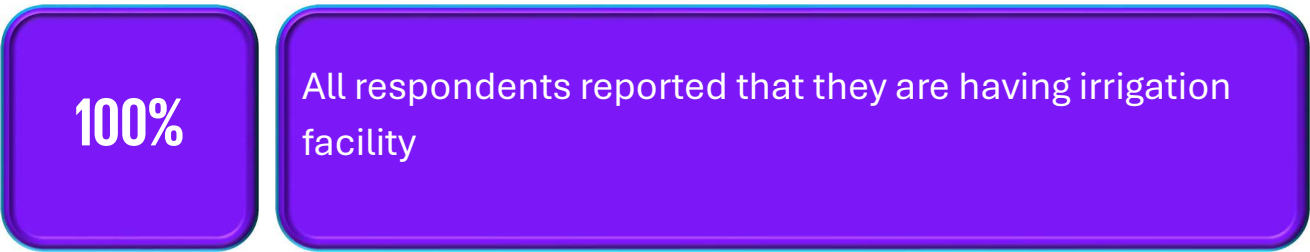
Crop Profile

Kharif		Rabi	Summer
Paddy		Millets	Vegetables
-		Vegetables	-

The cropping pattern in the project area reflects a diversified yet seasonally aligned agricultural system. Kharif cultivation is dominated by paddy, which is the primary monsoon-season crop due to its high water requirement and suitability to the region’s rainfall patterns. Alongside paddy, farmers also grow millets, which provide both dietary diversity and climate resilience.

During the Rabi and Summer seasons, farmers shift towards vegetable cultivation, indicating a preference for short-duration, market-oriented crops during periods of controlled irrigation. This seasonal crop diversification suggests that improved water conservation measures can substantially enhance productivity, particularly for vegetable crops grown in non-monsoon months.

Irrigation facility

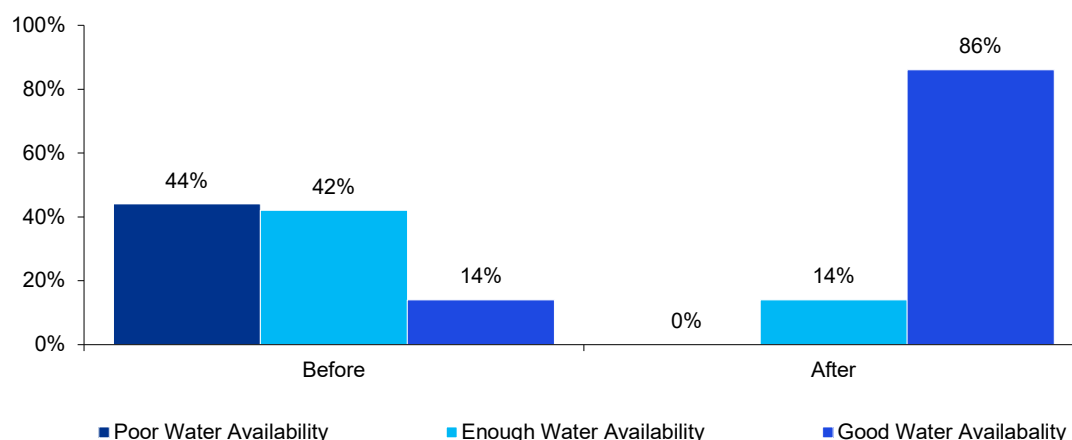


All respondents reported having access to irrigation facilities, indicating that each household is connected to at least one functioning water source for agricultural use. The primary means of irrigation include wells and electric motor pumps, which enable farmers to supplement rainfall and support crop cultivation across seasons.

This universal access to irrigation highlights a foundational level of water security within the project area, enabling diversified cropping practices and reducing dependence on monsoon rainfall. It also strengthens the potential impact of water conservation interventions by improving the efficiency, reliability, and sustainability of existing irrigation sources.

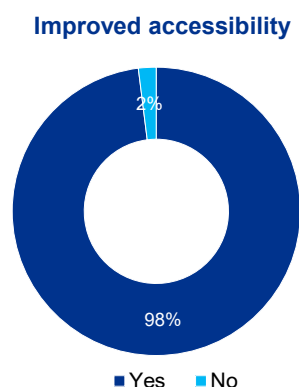
4.2. Impact on availability and accessibility of water

Perception comparison of Water Availability: Pre- and Post-Intervention



Following the rejuvenation of local water bodies, self-reported water availability shows a marked improvement. The share of households reporting good water availability increased from 14% (before) to 86% (after) (+72 percentage points), while those reporting poor water availability fell from 44% to 0% (–44 percentage points). Households with at least “enough” water rose from 56% to 100% (+44 percentage points), indicating complete elimination of the most severe scarcity category.

This shift suggests substantially improved reliability and adequacy of water for irrigation and domestic farm use, attributable per beneficiary accounts to water-body rejuvenation (e.g., desiltation, inlet/outlet repairs, recharge structures). Likely benefits include higher cropping intensity (especially Rabi/Summer vegetables), reduced drought risk, and lower expenditure on emergency water access (e.g., tanker dependence or excessive pumping hours). To sustain gains, periodic O&M and desiltation, protection of catchments, and community-led water governance are recommended.



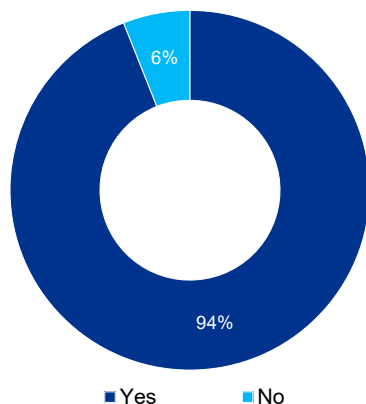
4.3. Impact on duration of the water availability

An overwhelming majority of respondents (98%) reported that their accessibility to water has improved following the project interventions. Only 2% indicated no noticeable improvement. This near-universal positive response demonstrates strong community-level validation of the project's effectiveness.

The significant improvement in water accessibility can be attributed to the rejuvenation and strengthening of local water bodies, which has enhanced water availability, reduced dependence on distant

sources, and improved reliability for irrigation and household agricultural activities. The high satisfaction rate reflects both the functional benefits and the visible on-ground impact of the interventions.

Increased water availability in your well/borewell

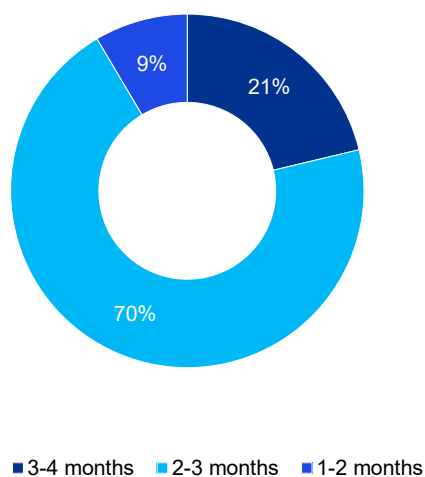


A substantial majority of respondents (94%) reported that the project interventions have led to an increase in water availability in their wells or borewells. Only 6% indicated no noticeable improvement. This positive response highlights the effectiveness of water-body rejuvenation activities in enhancing groundwater recharge within the project area.

The improvement suggests that interventions such as desiltation, deepening of tanks, strengthening of bunds, and restoration of natural water flow paths have contributed to higher infiltration and groundwater recharge rates. As a result, farmers now experience more reliable water

levels in their wells and borewells, supporting irrigation during critical crop stages and reducing risks associated with water scarcity.

Increased duration for water availability



Most respondents who observed an improvement report that water levels last an additional 2–3 months (70%), while 21% experience 3–4 months, and 9% report 1–2 months of improved availability. Using class mid-points, the estimated average extension is ≈ 2.6 months (calculated from 1.5, 2.5, and 3.5-month midpoints weighted by 9%, 70%, and 21%, respectively). The median duration lies in the 2–3 month band.

Implications: The added 2–3 months of reliable water can stabilize Rabi and early-Summer cropping, support short-duration vegetables, and reduce stress on pumping hours. To sustain these gains, prioritise pre-monsoon desiltation, inlet/outlet upkeep, and catchment protection, aligned with the expected 2–3 month recharge window.

Impact on ground water level

Season		Depth Foot	% Change
Summer	Pre intervention	37	27%
	Post intervention	27	
Monsoon	Pre intervention	5	0%
	Post intervention	5	
Winter	Pre intervention	23	13%
	Post intervention	20	

The primary data collected from farmers indicates a notable improvement in groundwater levels following the project interventions. During the Summer season, the average well depth improved from 37 feet (pre-intervention) to 27 feet (post-intervention), reflecting a 27% reduction in drawdown and demonstrating enhanced aquifer recharge during the most water-stressed period of the year. A similar positive trend is observed in the Winter season, where groundwater depth reduced from 23 feet to 20 feet, representing a 13% improvement. These reductions in depth signify that water is available at shallower levels, thereby improving ease of access and reducing pumping requirements.

In contrast, Monsoon season depths remained unchanged at 5 feet, which is consistent with the natural peak recharge conditions typical of the rainy period. The stability in Monsoon measurements indicates that wells were already at or near full recharge capacity, leaving limited scope for further observable improvement. Overall, the seasonal data confirms that the interventions particularly the rejuvenation of water bodies and improved recharge structures have strengthened groundwater availability, especially during critical non-monsoon months.

Impact on the surface water

"We are not aware when our village pond desilted last time, we are now satisfied that through intervention of APL it got delisted and we have more surface water and good ground water recharge" - PRI member



During the Focus Group Discussion (FGD), it was observed that in locations where excavation works were undertaken, surface water availability has improved and is sustained for a longer duration. As reported by a PRI member, surface water in these areas is now available until the months of March–April, whereas earlier it was available only up to December. Although this surface water is not directly used by households for domestic purposes, it is utilized by some villagers for livestock maintenance.

15% of the respondents shared that they are taking water directly from the surface water or water from water harvesting structures using electric water pumps.

It was noted during FGD those who are extracting water from water harvesting structures are extracting water as per their agricultural need; there is no fixed pattern of extracting water from these structures.

4.4. Impact on crop productivity

Average irrigated Area Pre-intervention	Average irrigated Area Post-intervention	Change	Average Increase in in sown area
1.4	1.8	0.4	38%

Unit: Acre

The project intervention has led to a measurable expansion in the area under irrigation among beneficiary households. The average irrigated area increased from 1.4 acres (pre-intervention) to 1.7 acres (post-intervention), reflecting an overall increase of 0.4 acres per household. This represents a 28% rise in the sown area, highlighting the direct positive influence of improved water availability on agricultural operations.

This increase indicates that enhanced groundwater recharge and improved access to irrigation have enabled farmers to bring additional land under cultivation, particularly during non-monsoon seasons. The expansion of irrigated area is a strong indicator of strengthened water security at the household level and demonstrates the project's contribution to improved agricultural productivity and resilience.

Crop	Pre-Intervention - Average yield per acre	Post Intervention - Average yield / acre	Change	%
Paddy	10	12	2	20%
Vegetable (Tomato)	233	300	77	33%
Unit quintal				

The analysis of crop productivity indicates a positive and measurable improvement in yields following the project interventions. For paddy, the average yield increased from 10 quintals per acre (pre-intervention) to 12 quintals per acre (post-intervention), reflecting a 20% increase in productivity. This improvement can be attributed to better water availability, enhanced soil moisture retention, and more reliable irrigation cycles resulting from the rejuvenation of water bodies and improved groundwater recharge.

Similarly, vegetable cultivation particularly tomato showed a significant enhancement in productivity. The average yield improved from 233 quintals per acre to 300 quintals per acre, registering a 33% increase. This substantial rise highlights the effectiveness of improved irrigation access in supporting water-sensitive, high-value horticultural crops. The enhanced availability of water during critical growth stages has enabled farmers to achieve better crop health, higher marketable output, and improved income potential.

Together, these yield improvements demonstrate that the interventions have strengthened agricultural performance across both staple and high-value crops, contributing directly to enhanced livelihood resilience and farm-level profitability..



4.5. Impact on income from agriculture

Income pre intervention	Income post intervention	Change	Increase
1,27,200	1,73,200	46,000.	36% 

Basis the income reported by the respondents improvement in household income following the project intervention. The average annual income increased from ₹1,27,200 (pre-intervention) to ₹1,73,200 (post-intervention), reflecting an absolute rise of ₹46,000 per household. This corresponds to a 36% increase in annual income, indicating a substantial enhancement in livelihood conditions.

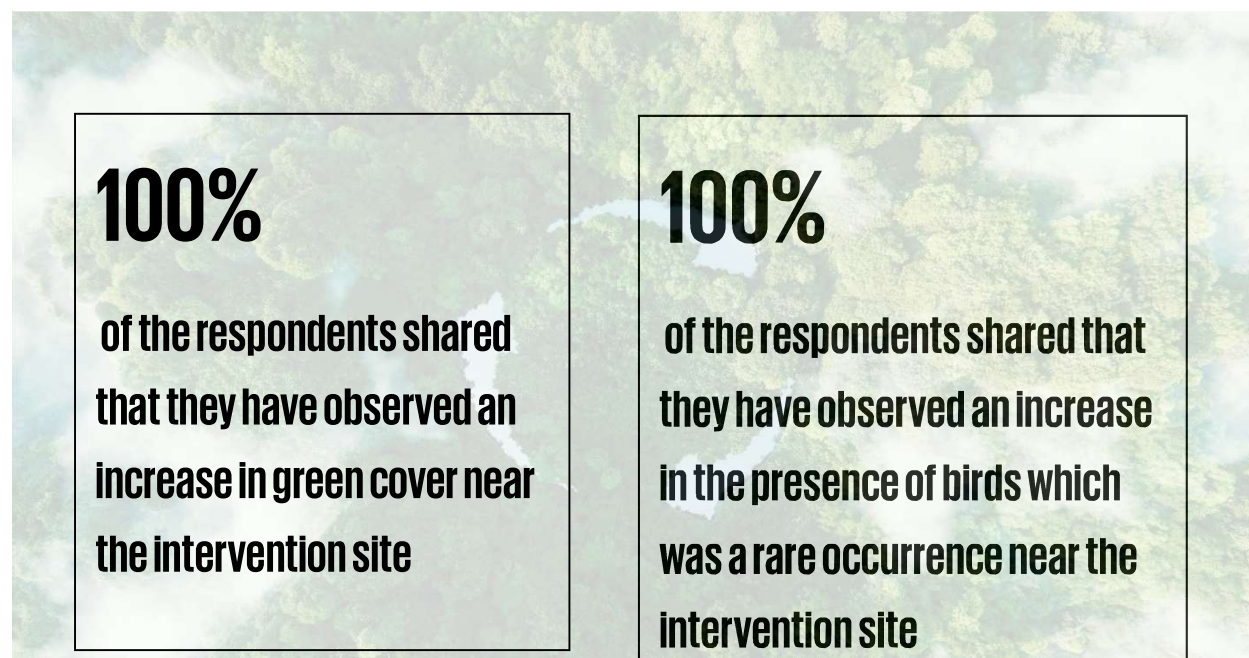
This improvement can be attributed to better water availability, increased irrigated area, higher crop productivity, and diversification into higher-value crops such as vegetables. The income gain demonstrates

the project's effectiveness in strengthening agricultural resilience and improving the economic well-being of beneficiary households.

4.6. Impact on assets creation

Only 14% of respondents reported creating new agricultural assets such as tractors, farm machinery, or wells following the project intervention, while 86% indicated that they had not yet made any such investments. Although the project has contributed to improved water availability, higher yields, and increased income, these benefits have not immediately translated into large-scale asset formation at the household level.

4.7. Impact on the environment



During the interaction with PRI members, it was noted that green cover has increased over the last year around the intervention site, mainly due to an increase in the water level of surface water. This has positively resulted in increased frequency of bird visits along the pond site, previously we rarely used to have so many birds at one place.

During interactions with Panchayati Raj Institution (PRI) members, it was observed that the green cover around the intervention site has increased notably over the past year. This improvement is primarily attributed to the rise in surface water levels, which has enhanced soil moisture and supported better vegetation growth in and around the watershed area.

PRI members further noted that the improved water availability has had a positive ecological effect, particularly evident in the increased frequency and diversity of bird visits around the pond.

4.8. Case Study

The rejuvenation of the village pond has significantly transformed agricultural productivity and improved the overall quality of life for farming households. Prior to the intervention, declining water levels and irregular irrigation availability limited crop yields and restricted farmers' income, which averaged around ₹40,000 per acre. Through pond desilting, deepening, widening, and restoration of inlet-outlet channels, the water-holding capacity of the pond improved substantially. This led to a noticeable rise in groundwater levels in wells surrounding the pond, ensuring reliable water availability even during dry months. With consistent access to irrigation, farmers were able to cultivate crops without water stress, leading to healthier plant growth and reduced losses. As a direct result of the improved water security, crop productivity increased by nearly 20 percent. Farmers who previously struggled with under-irrigation were now able to irrigate their farmland adequately and on time. This increase in yield translated into higher financial returns from the same plot of land. The average income per acre rose from ₹40,000 to approximately ₹50,000, reflecting a significant improvement in cash flow. The additional earnings enabled farmers to reinvest in better seeds, fertilizers, and farm inputs, further enhancing agricultural resilience. It also improved household stability, allowing families to spend more on education, healthcare, and other essential needs. Overall, the pond rejuvenation initiative demonstrated the strong link between water availability and rural prosperity. By improving groundwater recharge and ensuring dependable irrigation, the intervention strengthened livelihoods, boosted agricultural output, and contributed to a better quality of life for the farming community. The rise in income and productivity clearly illustrates how sustainable water management can create long-term positive impacts on both agriculture and rural development.

Agricultural income pre-intervention (in INR)	Agricultural income post-intervention (in INR)
40,000	50,000

05

Measuring the Social Return

5. MEASURING THE SOCIAL RETURN

As explained in Chapter 2, this report has used two evaluation frameworks which are OECD-DAC and SRoI. Generally, OECD-DAC helps in gaining a qualitative understanding of the impact. On the other hand, SRoI helps organizations in evaluating changes which are being created by measuring social, environmental, and economic outcomes and providing monetary values to represent them. SRoI also helps in understanding the total value generated for every rupee invested for interventions.

There are two types of SRoI:

- Evaluative, which is conducted retrospectively and based on actual outcomes that have already taken place.
- Forecast, which predicts how much social value will be created if the activities meet their intended outcome.

For this study, both evaluative as well as forecasting SRoI has been considered. SRoI primarily involves six stages which are as follows:

Stage 1: Establishing Scope and identifying key stakeholders

Stage 2: Mapping outcomes

Stage 3: Evidencing outcomes and giving them a value

Stage 4: Establishing impact

Stage 5: Calculating the SRoI

Stage 6: Reporting

Stage 1 and Stage 2 have been discussed in-depth in Chapter 2. Further stages have been elaborated in the ensuing sections.

5.1 Evidencing Outcomes

After creating the impact map, outcome indicators were developed based on interactions with beneficiaries and other key stakeholders such as PRI members and implementation teams. Evidence of these outcomes was gathered through both primary and secondary data sources.

Quantity of Change: The quantity of change for the impact map was calculated by extrapolating responses from the sample to the entire beneficiary population. Based on the data collected, a proportionate percentage of total beneficiaries was estimated to represent the overall impact.

The details about the evidence indicators for the outcomes and the quantity of change against each indicator are provided below:

Duration of Outcome:

Some outcomes are long-term, lasting throughout a beneficiary's life, while others persist only as long as the intervention continues. For this SRoI analysis, impacts from infrastructure-related activities are considered for up to 5 years, whereas intangible interventions such as training are assumed to have an impact for 3 years. These timelines are based on the following assumptions:

- Water resource development creates lasting effects on groundwater and surface water levels, with corresponding economic and social benefits

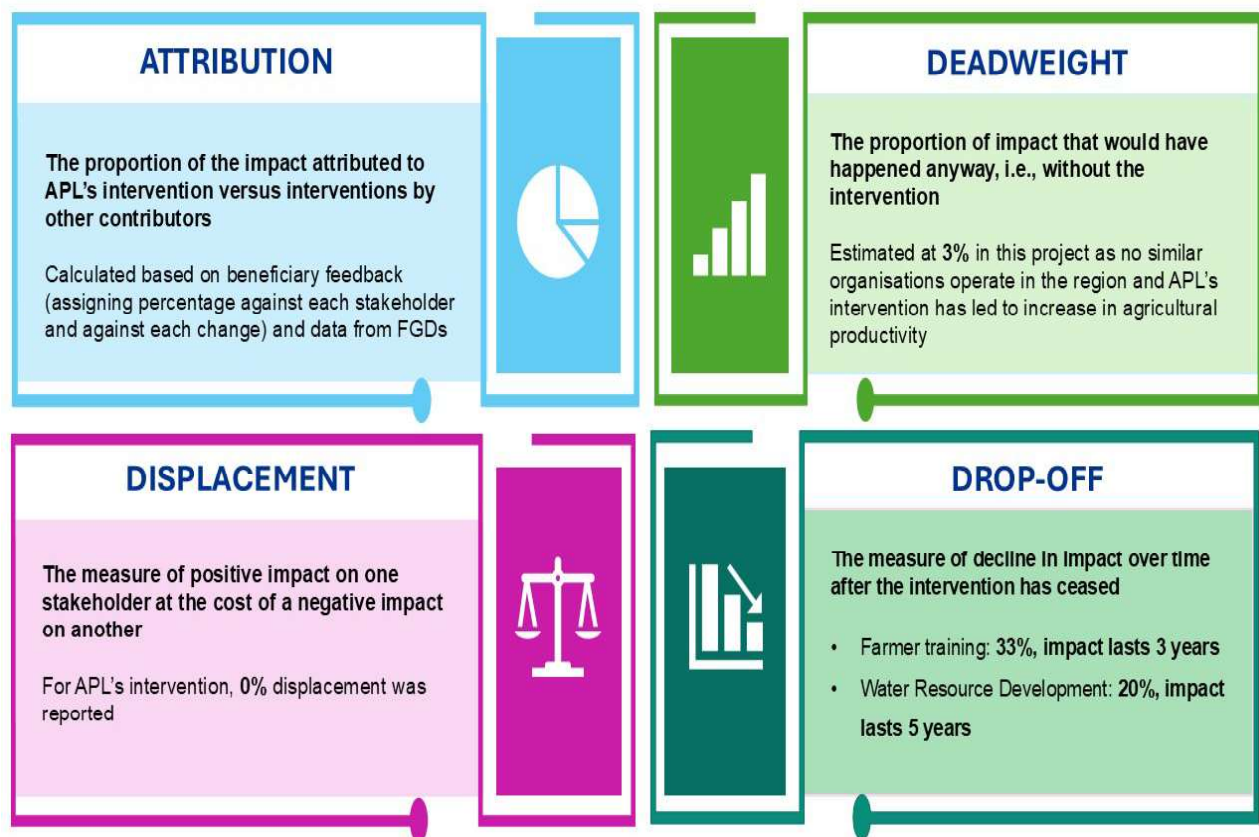
- Training-based interventions require periodic updates due to technological, market, and climate changes
- Based on the nature of interventions and evolving income-generating activities, beneficiary and stakeholder contributions will eventually outweigh the impacts due to initial support from APL

Financial Proxy and Value of Financial Proxy:

To assign value to outcomes, financial proxies were used, following standard practice of using market prices where possible. For intangible outcomes without direct market value, the closest comparable proxy was identified. Refer to the table for outcome-wise details.

5.2 Establishing Impacts

An important part of SROI is 'measuring impact' by accounting for attribution, deadweight, displacement, and drop-off.



5.3 Calculating Impact

$$\text{Impact} = \text{Quantity of outcome} * \text{Financial Proxy Value} * \text{Attribution} - \text{Deadweight} - \text{Displacement} - \text{Drop-off for each year}$$

SRoI is a ratio of cumulative present value for each outcome against the total investment in the project i.e., **SRoI = Total NPV of social value / NPV of investment**

Total Input Value: For SRoI calculation, inputs from APL, beneficiaries, and other stakeholders were considered, assuming all contributions collectively created the observed impact. Without any one of these inputs, the current outcomes would not have been achieved. Inputs included financial contributions from APL, beneficiaries, and stakeholders, as well as the time invested by beneficiaries in training and exposure activities. Financial values were provided by APL, while non-financial inputs were estimated in consultation with the APL CSR team.

The below table represents the total cumulative investments from all the stakeholders towards the project from the time period 2023- 2024:

InputType	Inputdescription	Total Inputvalue(INR)
Financial inputs	CSR Funding from APL	2,88,87,000
Total		2,88,87,000

Net Present Value: The Impact Value is adjusted to reflect the Net Present Value (NPV) of the projected outcome values. This is to reflect the present-day value of benefits projected into the future.

A **discount rate of 5%** has been used for the NPV calculations.

$$\text{SRoI} = \{\text{Total present value of impact} / \text{Total present value of input}\}$$

The below table depicts the NPV evaluated as of 2025 and forecasted for 2030 (considering the duration period of 5 years for each outcome):

5.4 SROI Results

The SROI for this analysis- evaluative SROI (as on 2025) and evaluative cum forecast SROI (as on 2029) - is derived from dividing the total present value of the impacts by the total input value of the investment. This is considered because the beneficiaries who have received the support in 2023-24 would realise the impact for the next 5 years i.e., by 2030.

The below table shows the SROI Value and the SROI Ratio before sensitivity analysis:



For every INR 1 invested, the programme has generated social impact of INR 4.01

Sensitivity Analysis: Our calculations to arrive at the results provided in this report are relied on a variety of primary and secondary data, but the beneficiary data introduced a higher level of uncertainty. This survey was utilized to estimate the attribution, additionality of APL interventions to specific outcomes, and the duration of time the impact would last.

Sensitivity Analysis was used to test variables and assumptions to ensure that conservative estimates have been used in arriving at the SROI. For each impact area, we tested the impact of using one standard deviation above and below the average response to attribution survey questions.

With sensitivity computation, the value of the APL program can then be stated in a range. For every INR 1 invested, the social value generated is between INR 3.7 and INR 4.5.

Sr. No.	Base case Parameters	Base case SROI	Test case Parameters (Min-Max)	Test case SROI
1	Deadweight	4.01	Deadweight is 0%	4.01
			Deadweight is 10%	3.81
			Displacement 0%	4.01
2	Displacement		Displacement is 5%	3.70

Sr. No.	Base case Parameters	Base case SROI	Test case Parameters (Min-Max)	Test case SROI
3	Attribution		Attribution is 85%	4.46
			Attribution is 75%	4.00
			Drop-off is 3 years	4.01
4	Drop-off		Drop-off is 5 years	4.55

Limitations & assumptions for the SROI study

- The study is limited to the sample of beneficiaries interacted with on-ground during field visits.
- The survey conducted with sample beneficiaries is subjective in nature.
- The study is limited to the recall of the participants in the study.
- The financial proxies are limited to publicly available resources. The financial proxies are representative and based on professional judgement, but it may not be reflective of actual costs incurred due to several considerations. (Refer to Appendix B for details of financial proxies)
- The deadweight, displacement, drop off values are derived from the responses from the stakeholders.
- While information obtained from the public domain or external sources has not been verified for authenticity, accuracy, or completeness, we have obtained information, as far as possible, from sources generally considered to be reliable. However, it must be noted that some of these websites/third party sources may not be updated regularly. We assume no responsibility for the reliability and credibility of such information.

06

Way Forward

6. Way Forward

The field observations highlight both the positive impacts achieved through the watershed and water management interventions, as well as several systemic gaps that require strategic attention moving forward. While the improved irrigation cycles have contributed to enhanced agricultural productivity across seasons, the sustainability of these gains depends on strengthening community institutions, promoting equitable participation, and ensuring scientific water management practices. Addressing these gaps through coordinated and community-inclusive efforts is essential for sustaining long-term water security.

A key area requiring focused action is the need to enhance community governance structures such as Water User Associations (WUAs). Their current low engagement and limited clarity of roles hinder effective water stewardship at the village level. Similarly, women's participation across the project cycle remains limited, underscoring the need for gender-responsive approaches that enable inclusive decision-making. Strengthening these social and institutional mechanisms will ensure that interventions are community-owned, equitable, and more resilient.

Key Observations	Recommendations
During the visit, it was observed that women's participation in the project cycle is low, with men primarily making the decisions.	Introduce targeted training, capacity-building programs, and gender-mainstreaming initiatives. Ensure women are involved at all project stages to strengthen sustainability and promote gender equality.
Water User Associations (WUAs) formed for WHS beneficiaries were largely inactive. Members were unclear about their roles and responsibilities, resulting in low participation in water stewardship.	Strengthen WUA engagement by facilitating community-level water budgeting and crop planning exercises to improve understanding of water availability and irrigation needs.
It was noted during the visit that observation wells were identified in the village however control well near the or just far from the intervention areas was not identified. Control well observation help to gauge the impact by comparing water levels by comparing the level between two wells	Conduct detailed hydro-geological and engineering planning to design elevation-specific water security solutions. Explore alternatives such as gravity-based water systems, high-elevation storage structures, and improved distribution planning. Support the Panchayat with technical and financial guidance for installing an efficient solar pump system to reduce long-term operational costs and ensure equitable access to water for high-elevation households.
Project has potential to scale in the near by geography as more such water conservation can be carried out as reported the PRI members	Strengthen collaboration with PRIs and district-level institutions to mobilize convergence of schemes and resources to scaling these kind of water conservation measures

7. Annexures

(Financial Proxies used for SRol)

Outputs	What changes?	How much?	Monetary valuation
Construction and refurbishment of Check dams/ Water Harvesting Structures	Creation of sustainable water supply through increment in availability and accessibility of water	Groundwater abstraction charges for Drinking and Domestic use (Central Water Commission) per cubic metre	2.00
		Irrigation charges by government (per hectare)	314.00
		Average HH requires 220 LPCD daily and using it for a months gets us the water requirement = 6600/HH/month Charges for purchasing water (One water tanker of 4000 litre capacity) - INR 200/- by Vadodara Municipal Corporation.	330.00
	Increased agriculture production due to increment in availability of water	Average increase in Net sown area indicated by respondents (Ha) Avg Yield of Rice in Vizag district in FY 2021-22 = 1026 kg/ha MSP of Paddy in - 2203/Q	1057.44
		Average increase in Yield indicated by respondents (Quintals) MSP of Paddy - 2203/Q	2203.00
		Average reduction in Cost of Cultivation indicated by respondents (INR)	8285.71
Availability of potable water for household consumption due to increased Ground water level and WHS	Increased quality an accessibility to potable water leading to improved health of community members	Minimum hours spent in rural India to fetch water = 15 hours Minimum wage paid under MGNREGA in FY 2021-22 per hour	438.75
	Increased access to water for animal husbandry activities	Average increase in Milk Yield (in Litres per day) x Amount received for 1L of milk from Amul Dairy	52.00
Improved bio-diversity due to availability of water for extended period / throughout the year (birds/animals from nearby)	Improved bio-diversity due to availability of water for extended period / throughout the year... (birds/animals from nearby area using the water during summer)		20

Outputs	What changes?	How much?	Monetary valuation
area using the water during summer)			
Extended impact on community (beneficiaries and their family members)	Improved wellbeing for the beneficiaries and their family members	Basis NSS 68th Round (2011-12), MPCE in Rural areas on Fruits (Rs.41) and Vegetables (Rs.95). Inflation Adjusted Cost (using Cost Inflation Index) for MPCE at 2021-22 prices comes out to be Fruit-70.63/- and Vegetable-163.67/-. For a family of 4 members, the yearly expenditure has been considered for calculation.	11246.61
		Basis NSS 68th Round (2011-12), MPCE in Rural areas on Education is Rs.50. Inflation Adjusted Cost (using Cost Inflation Index) for MPCE at 2021-22 prices comes out to be Fruit-86.14/-. For a family of 2 children, the yearly expenditure has been considered for calculation.	2067.36



IMPACT ASSESSMENT OF WATER RESOURCE MANAGEMENT, PATANCHERU

Asian Paints Limited
March 2026



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Strictly Private and Confidential

Mr. Amit Kumar Singh
Vice-President, Corporate affairs & CSR
Asian Paints Limited
Mumbai, Maharashtra– 400055
India

24 March 2026

Subject: Final report for Impact assessment of CSR Projects

Dear Mr. Amit Kumar,

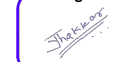
We appreciate the opportunity to assist Asian Paints Limited in providing **Impact assessment of CSR Projects** related services.

Please find enclosed our final report, which has been prepared in accordance with the scope and terms stated in our engagement letter dated 3rd February 2026. With this deliverable, we have completed our obligations as stated in our engagement letter.

It has been our privilege to have this opportunity to work with you, and we look forward to continuing our relationship.

Yours sincerely

Signed by:



Jignesh Thakkar,

**Partner,
KPMG Assurance and Consulting Services LLP**

Disclaimer

- *Our report has been prepared solely for Asian Paints Limited. KPMG does not accept or assume any liability, responsibility, or duty of care for any use of or reliance on this report by anyone, other than our Client, to the extent agreed in the Agreement.*
- *Impact assessment is limited to the projects allocated by Asian Paints Limited*
- *OECD DAC and SROI framework has been used in preparing the report as detailed herein. No professional assurance standards ex. ISAE, SSAE etc. have been applied while preparing this report and accordingly the rigors applicable under such standards are not applicable for the scope covered by our report.*
- *Procedures, analysis and recommendations, if any, are advisory in nature basis the information collected from various sources both publicly and those provided by the client.*
- *Our observations represent our understanding and interpretation of the facts based on reporting of beneficiaries and stakeholders.*
- *Our report, by its very nature, may involve numerous assumptions, inherent risks, and uncertainties, both general and specific. The conclusions drawn shall be based on the information available with us at the time of preparing the report.*
- *We shall not perform an audit and shall not express an opinion or any other form of assurance. Further, comments in our report are not and shall not be intended, nor should they be interpreted to be legal advice or opinion. Client shall be fully and solely responsible for applying independent judgment, with respect to the findings included in the report, to make appropriate decisions in relation to future course of action, if any. We shall not take responsibility for the consequences resulting from decisions based on information included in the report.*
- *While information obtained from the public domain or external sources has not been verified for authenticity, accuracy, or completeness, we have obtained information, as far as possible, from sources generally considered to be reliable. However, it must be noted that some of these websites/third party sources may not be updated regularly. We assume no responsibility for the reliability and credibility of such information.*
- *Our work shall be limited to the specific procedures described in this Engagement Letter and shall be based only on the information and analysis of the data obtained through interviews of beneficiaries supported under the programme, selected as sample respondents and discussions with APL team and stakeholders of the programme. Accordingly, changes in circumstances or information available after the review could affect the findings outlined in our report.*
- *In no circumstances shall we be liable, for any loss or damage, of whatsoever nature, arising from information material to our work being withheld or concealed from us or misrepresented to us by any person to whom we make information requests.*
- *In accordance with its policy, KPMG advises that neither it nor any of its partner, director or employee undertakes any responsibility arising in any way whatsoever, to any person other than Client in respect of the matters dealt with in this report, including any errors or omissions therein, arising through negligence or otherwise, howsoever caused.*
- *In connection with our report or any part thereof, KPMG does not owe duty of care (whether in contract or in tort or under statute or otherwise) to any person or party to whom the report is circulated to and KPMG shall not be liable to any party who uses or relies on this report. KPMG thus disclaims all responsibility or liability for any costs, damages, losses, liabilities, expenses incurred by such third party arising out of or in connection with the report or any part thereof.*
- *By reading our report, the reader of the report shall be deemed to have accepted the terms mentioned hereinabove.*

List of Abbreviations

APL	Asian Paints Limited	mS/cm	Milli Siemens per centimeters
ATMA	Agricultural Technology Management Agency	MSP	Minimum Support Price
BCM	Billion Cubic Meters	NITI	National Institution for Transforming India
BIS	Bureau of Indian Standards	NMAET	National Mission on Agricultural Extension and Technology
BOD	Biochemical Oxygen Demand	NPV	Net Present Value
CGWB	Central Ground Water Board	O&M	Operation and Maintenance
CGWB	Central Ground Water Board	OC	Organic Carbon
CPCB	Central Pollution Control Board	OECD-DAC	Organisation for Economic Co-operation and Development-Development Assistance Committee
CSR	Corporate Social Responsibility	OOPE	Out-of-Pocket Expenditure
CWC	Central Water Commission	pH	Potential of Hydrogen
dS/m	Deci Siemens per Meter	ppm	Parts Per Million
EC	Electrical Conductivity	PRI	Panchayati Raj Institution
FGD	Focus Group Discussion	qtl	quintal
FIG/FI	Farmer Interest Group	RFP	Request for Proposal
FPO	Farmer Producer Organization	ROI	Return on Investment
ft	Feet	SAR	Sodium Adsorption Ratio
HH	Household	SDG	Sustainable Development Goal
INR	Indian Rupees	SEZ	Special Economic Zone
IS	Indian Standards	SHG	Self-Help Group
kg/ha	Kilogram per Hectare	SRI	System of Rice Intensification
kg/ha	Kilograms per hectare	SRoI	Social Return on Investment
KII	Key Informant Interview	TDS	Total Dissolved Solids
KPI	Key Performance Indicator	TOC	Theory of Change
LPCD	Litres Per Capita Per Day	tons/acre	Tons per acre
me/L	Milliequivalents per litre	VI	Village Institution
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act	WASH	Water, Sanitation and Hygiene
MIDC	Maharashtra Industrial Development Corporation	WHS	Water Harvesting Structure
MPCE	Monthly Per Capita Expenditure	WUA	Water User Association

Contents

1.	Executive summary	5
2.	INTRODUCTION	10
2.1.	Background	10
2.2.	Asian Paint Limited	11
2.3.	About the Study	11
2.4.	About the project	12
2.5.	About implementing partners	13
2.6.	Project Geography	13
3.	APPROACH AND METHODOLOGY	15
3.1.	Our Approach	15
3.2.	OECD-DAC	15
3.3.	Social Return on Investment (SROI)	18
3.4.	Detailed Methodology	19
4.	ANALYSIS AND FINDINGS	26
4.1	Demography of Respondents	26
4.2	Water Harvesting Structure	29
4.2.2.	Impact on Livestock	31
4.2.3.	Impact on farming practices	31
4.2.4.	Impact on drinking water	34
4.3	Water Governance	34
4.3.1	Member of WUA Group	34
4.3.2	Separate fund for O&M	34
4.4	Agriculture and Livelihood	35
4.4.1	Impact on agricultural land	35
4.4.2	Impact on Mode of Irrigation	35
4.4.3	Impact on Source of Irrigation	35
4.4.4	Impact on Agricultural Income	36
4.5	Environment	37
4.5.1	Impact on environment	37
4.5.2	Impact on soil and water quality	38
	Soil Test	38
	Water Test	38
4.6	Case Study	39
5.	MEASURING THE SOCIAL RETURN	41
5.1	Evidencing Outcomes	41
5.2	Establishing Impacts	42
5.3	Calculating Impact	42
6.	Way forward	47

01

Executive Summary

1. Executive summary

Asian Paints Limited has imbibed the philosophy of transformation in its DNA and has consistently reinvented the industry. Aligning with this approach, the company's CSR efforts are focused on achieving holistic and sustainable community development. There is a strong emphasis on fostering robust trust-based relationships with communities located in the vicinity of its plants and people in the unorganized sector. These inclusive development initiatives are concentrated on health and hygiene, water conservation, skill development, and disaster management.

Water scarcity remains one of India's most pressing development challenges, driven by increasing demand, climate variability, groundwater depletion, and the high dependence of rural livelihoods on agriculture. Semi-arid regions such as Patancheru block in Sangareddy district face recurring water shortages, seasonal irrigation stress, and declining groundwater tables.

In response, Asian Paints engaged in a holistic approach through its "Water Resource Management" program in the Patancheru block of Sangareddy district in Telangana. This initiative addresses water scarcity, soil conservation, and natural resource management, aiming to ensure sustainable and resilient water resources for the country

KPMG conducted the impact assessment for interventions undertaken in FY 2023–24, drawing on the Organisation for Economic Co-operation and Development-Development Assistance Committee (OECD-DAC) evaluation criteria and the Social Return on Investment (SROI) framework to measure outcomes. A mixed-method approach was adopted, combining quantitative data analysis with qualitative insights to ensure a holistic evaluation. The objective of this impact study is to assess the impact of water stewardship activities, with a specific focus on access and availability of surface and ground water, potable water, agricultural practices, farmer livelihoods, and governance. The mixed-methods approach involved quantitative and qualitative research methodologies, utilizing primary and secondary data collection. The analysis of quantitative data was corroborated with anecdotal evidence from qualitative responses and observed through the lens of the SROI and (OECD-DAC) frameworks. During the survey, respondents from seven villages including farmers, community members, PRI members, and Water User Association members, were interviewed for data collection.

The sample size included respondents from diverse economic backgrounds, small to marginal farmers, and those whose primary source of income is agriculture. More than half of the respondents were between the age group of 40 to 60 years and 32 percent of respondents had no formal education.

This report also estimates the impacts felt by the beneficiaries and wider community as a result of the APL programme, by valuing them in monetary terms. We have examined the social impact of the APL programme arising from its CSR project during the FY 2023-24. To achieve this, we have estimated the Social return on investment (SROI) generated by the programme by comparing the financial costs of the programme to the monetary value of the impacts it creates among its stakeholders. Whilst many of the impacts arose during the period of analysis, impacts would also occur or continue the effect for some time in future. Thus, forecasting methods have been used.

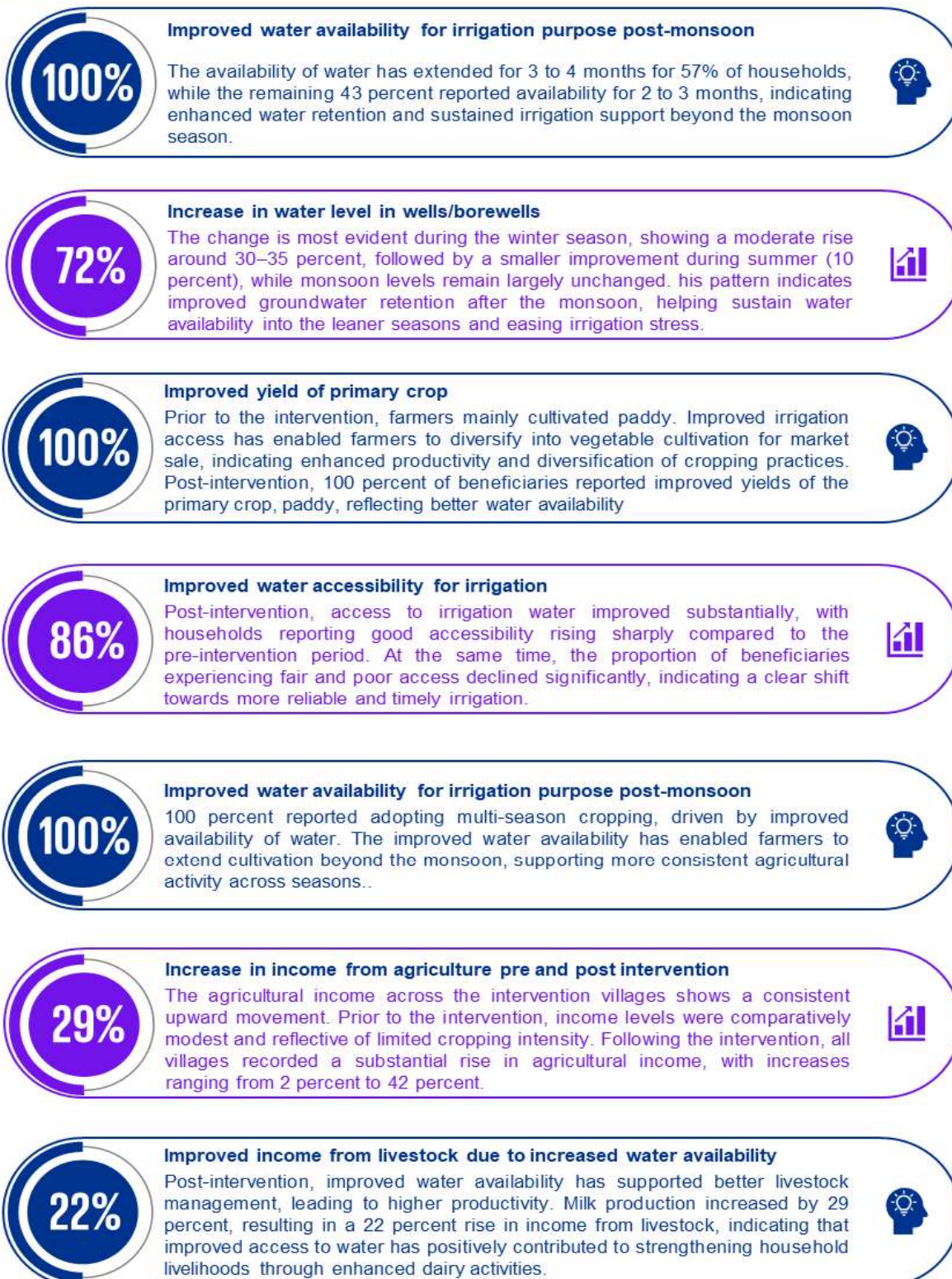
We estimate that for every INR 1 spent by the water resource management programme, INR 1.88 in social value has been generated through a mixture of socio-economic wellbeing among the beneficiaries.

Key Output Numbers

1.10 lakh KL
Water potential created

175
Beneficiary Outreach

Key highlights from the impact assessment study



Key findings as per the IRECS framework

Findings basis IRECS framework

I- Impact

- The project has created a meaningful and sustained impact on local water security and agricultural livelihoods. Improved surface water retention and consistent groundwater recharge have strengthened water availability beyond the monsoon period, reducing seasonal stress. These improvements have enabled more reliable irrigation, supported better crop performance, and encouraged diversification and continuity in farming practices.

R- Relevance

- Interventions such as check dams, desilting, contour trenches, and soil moisture conservation directly respond to the community's need for reliable water access and improved irrigation.
- Majority of the population is dependent on the agriculture as primary source of income

E- Efficiency

- Project completed within set timelines

C- Coherence

- Project Alignment with National Priorities-
- Directly converges with Jal Shakti Abhiyan and 'Catch the Rain' campaign of Ministry of Jal Shakti.
- Project align with the SDGs as mentioned, SDGs 6, SDG 1, SDG 2, SDG 15

S-Sustainability

- 100% of respondents shared good ratings for the project. Positive impact on biodiversity due to increased surface water availability
- Currently, Water User Associations are formed, however they do not maintain an operational and maintenance funds. Therefore, user group shall be strengthened for the better and assured maintenance of the Water Harvesting Structure

SROI Results

1

Total CSR Investment

INR 1,00,00,000

2

SROI Ratio

1.88

3

Sensitivity range

₹1.54 - ₹2 per ₹1 invested

The Social Return on Investment (SROI) assessment of the Participatory Water Resource Management Project in Patancheru demonstrates that Asian Paints Limited's CSR investment has generated substantial and long-lasting value for communities. With a total investment of INR 1 crore, the project produced an estimated social value of INR 1.88 crore, delivering an SROI ratio of 1:1.88, which means that every rupee invested created INR 1.88 in social, economic, and environmental benefits. This value was derived from improvements in water availability, expansion of irrigated land, significant increases in crop yields, reduced cultivation and irrigation costs, and enhanced household well-being. The assessment applied financial proxies to quantify these outcomes and incorporated adjustments for attribution, deadweight, displacement, and drop-off to ensure accuracy and conservatism in estimating impact. Sensitivity analysis further confirmed the robustness of the results, showing that even under the most conservative scenarios, the SROI remained strong, ranging between INR 1.54 and INR 2.00 of social value per rupee invested. Overall, the SROI findings highlight the project's effectiveness in strengthening water security, improving agricultural productivity, and enhancing community resilience, while also validating the cost-efficiency and long-term value of integrating watershed management into CSR strategy.

Way forward

Looking ahead, the project's strong SROI performance reinforces the case for continued and strategic investment in integrated water resource management, with a sharper focus on institutional strengthening and long-term sustainability. While the physical assets have delivered high value and are structurally robust, the next phase should prioritize activating and capacitating Water User Associations (WUAs), establish dedicated O&M funds, and introducing simple yet consistent monitoring systems such as water-level ledgers, crop-yield tracking, and maintenance logs. Enhancing community governance, coupled with periodic training on climate-resilient agriculture, will help sustain and amplify benefits over the next 5–10 years. Additionally, integrating regular water quality and soil health assessments can guide farmers toward more efficient resource use. By institutionalizing these measures and scaling high-performing interventions to nearby villages, APL can further enhance program resilience, strengthen community ownership, and unlock even greater social returns in future cycles.

02 Introduction

2. INTRODUCTION

This chapter consists of an overview of the water stress in Indian context and Asian Paints Ltd.'s CSR efforts to address the issue. It provides an overview of the project, implementing partners, project geographies, scope, and purpose of the study.

2.1. Background

Water security has reached a critical inflection point in India because of rapid development, population pressure and climate volatility. As of 2025, India sustains approximately 18% of the global population with only 4% of the world's freshwater resources.¹ The NITI Aayog Annual Report (2024-25) warned that the country's average per capita water availability is projected to decline to 1,341 cubic meters by late 2025, pushing the nation further into the "water-stressed" category (threshold < 1,700 m³) and nearing the "water-scarcity" limit of 1,000 m³.² With abundant flow in Ganga and Brahmaputra basins and much lower availability in west and south-western basins, regional disparities exist that make proper management of local demand essential.

India's water budget remains heavily dependent on a fluctuating monsoon and there are both quantity and quality concerns with groundwater. According to the Dynamic Ground Water Resource Assessment (2024) published by Central Ground Water Board (CGWB), the total annual groundwater recharge is estimated at 446.90 Billion Cubic Meters (BCM), with an annual extractable resource of 406.19 BCM. While the average extraction rate is 60.47%, regional disparities are severe. Out of a total of 6,746 assessment units, approximately 11.1% of assessment units, primarily in Punjab, Haryana, Rajasthan, and Delhi, are classified as "over-exploited", where extraction exceeds natural replenishment.³ On groundwater quality, CGWB's Annual Ground Water Quality Report 2024 highlights localized exceedances of nitrate, fluoride, and arsenic in shallow aquifers across different states, varying seasonally with recharge and agricultural inputs.⁴ The report mentions Triple Contamination Challenge in India's groundwater, referring to the three most widespread contamination threats, each stemming from different sources- nitrate (anthropogenic), fluoride (geogenic) and salinity/electrical conductivity (EC).

Surface water pollution is another important concern. Around 70% of India's surface water is contaminated, ranking the country 120th out of 122 on the global Water Quality Index. Central Pollution Control Board's latest report titled "Polluted River Stretches for Restoration of Water Quality" identifies 150 polluted stretches nationally, including 35 Priority-1 segments where Biochemical Oxygen Demand (BOD) is greater than 30 mg/L. Wastewater from various sources, intensive agriculture, industrial activities, and untreated urban runoff contribute to this pollution, compromising the health of both humans and aquatic ecosystems.

Climate change has added to the risk of water stress. In 2024-25, India experienced a 55% increase in record heatwaves, accelerating evapotranspiration and increasing the demand for irrigation which consumes over 80% of freshwater in rural areas.⁵ Because of climate change, the monsoon pattern has become erratic, characterised by long dry spells followed by intense cloudbursts. When this happens, the natural soil infiltration is affected, which results in flash floods and reduced aquifer recharge.

In this challenging water landscape, the importance of watershed management becomes apparent. Watershed management is not merely a focus on water projects but involves a holistic approach to land-use practices, afforestation, and soil and water conservation. Watershed approaches work at the hydrological unit where supply, demand and quality intersect. Steps like planting trees and protecting

¹ United Nations World Water Development Report 2024, sourced at <https://unesdoc.unesco.org/ark:/48223/pf0000388948>

² NITI Aayog Annual Report 2024-25 [NITI AAYOG, India | Annual Report 2024-25](#)

³ [Press Release: Press Information Bureau](#)

⁴ CGWB Annual Ground Water Quality Report 2025 [CGWB - Publications Repository](#)

⁵ [India's Water Crisis: Why Climate-Resilient Governance is Urgent](#)

stream banks, building small check-dams and farm ponds, contouring fields to slow water, using drip/sprinkler irrigation and involving local communities in simple monitoring make more rain soak into the ground, reduce silt in reservoirs, steady flows in the dry season and improve drinking-water availability. Such a holistic approach that addresses not only water scarcity but also soil conservation and natural resource management is crucial for ensuring a sustainable and resilient water future for the country.

2.2. Asian Paint Limited

Asian Paints, headquartered in Mumbai, is one of the largest paint companies in India. Started in 1942, the company currently operates in 14 countries with products sold in over 60 markets. Asian Paints operates in various segments, including decorative paints, industrial and automotive coatings, and home décor products like furniture, lighting, and wallpapers. APL focuses heavily on research and development, which helps it keep introducing new and improved products. The company has also launched eco-friendly and sustainable paints, in line with the growing global preference for environmentally responsible solutions.

Asian Paints goes beyond its core business by actively contributing to social and environmental well-being through its Corporate Social Responsibility (CSR) initiatives. Guided by its values of trust, fairness, and care, the company focuses on creating long-term impact in communities around its operations. Its programmes address key areas such as water conservation, healthcare and skill development, leveraging its expertise to deliver meaningful change. The objective is to empower marginalised communities and improve quality of life by tackling critical social, economic, and environmental challenges. These efforts are closely aligned with the United Nations Sustainable Development Goals (SDGs), particularly, Goal 1 (No Poverty), Goal 2 (Zero Hunger), Goal 3 (Good Health and Well-being), Goal 6 (Clean Water and Sanitation), Goal 8 (Decent work and economic growth), Goal 11 (Sustainable cities and communities) and Goal 17 (Partnership for the goals).

Asian Paints runs several initiatives in water conservation, health and hygiene, skill development, and disaster relief. Its flagship Water Stewardship Program called the Watermark program, focuses on improving water availability and security in communities around its plants. The program combines supply-side measures like pond cleaning, desilting, check-dam construction and renovation, canal lining, and integrated watershed management with demand-side interventions such as micro-irrigation, System of Rice Intensification (SRI), and sustainable farming practices. These efforts aim to restore water bodies, reduce soil erosion, and recharge groundwater, while promoting efficient water use in agriculture. By adopting a holistic approach that includes soil health and pest management, Asian Paints helps strengthen ecosystem services and improve livelihoods.

2.3. About the Study

To understand the impact created by its interventions implemented in FY 2023-24, Asian Paints Ltd. empanelled KPMG to facilitate the impact assessment of its **Participatory Water Resource Management project**. The objective of this study was to assess the impact of these water stewardship activities on the beneficiaries and stakeholders covered under the projects. The study aimed to understand the immediate, medium, and longer-term impact of the interventions on the targeted beneficiaries:

The duration considered for this study is financial year 2023-24.

Impact on Access & Availability of Surface & Ground Water

- To understand the impact on ground-water recharge based on well recharge data
- To understand the duration of water availability post-monsoon (in months)
- To understand the impact of water accessibility,

	availability & livelihood of the farmers
Impact on Potable Water	- To assess the impact on drinking water availability and quality due to rainwater water harvesting structures. - To assess impact on other areas like drudgery reduction, drop in health issues around the drinking water etc.
Impact on Agricultural Land & Practices	- To assess impact on season wise cropping pattern led by the availability of water in the area. - To assess impact on soil health due to balance use of fertilizer because of adoption of recommendations of soil testing report and application of organic fertilizers - To assess impact on knowledge level of the farmers about improved agricultural practices.
Impact on Farmer's Livelihood	- To assess impact of water availability on crop production (yield/acre) - To assess impact of water availability on productivity of livestock animals - To assess impact on net return/acre per farmer. - To assess the impact on livelihood opportunities created through the programme.
Other Impact Areas Apart from Water Rejuvenation & Canal Lining	- To assess knowledge and adoption level of water efficient agricultural and risk mitigation farm practices. - To assess level of ownership by the community in the asset created: Whether community-based institutions had been formed and taking care of maintenance aspects of the assets created under the project.

2.4. About the project

Asian Paints' Water Stewardship Programs signifies the company's dedication to sustainable practices and responsible corporate citizenship. By addressing the challenge of water scarcity through community partnerships and integrated initiatives, Asian Paints aims to make a positive impact on both its operations and the communities it serves.

The Water Resource Management Project at Patancheru aimed to revive traditional water bodies and strengthen local water infrastructure. The initiative focused on desilting and restoring tanks and ponds, improving feeder channels, and supporting repairs to common drinking water sources. Alongside physical interventions, the project emphasized community participation through awareness programs, water literacy campaigns, and capacity-building for local institutions to ensure sustainable management of resources. By combining technical expertise, financial support, and grassroots engagement, the program aimed to enhance water availability, promote judicious utilization, and create a resilient framework for long-term water security and rural development.

The objectives of the project are:

- To increase the surface and groundwater availability through community participation, technical and financial support for revival of traditional water tanks/ponds
- To promote judicious utilization of local water resources through awareness and sensitization of community, technical and financial support for revival of drinking water sources such water distribution system and source strengthening
- Facilitation for capacity-building of community-based institutions/PRI for their effective functioning, including demand side management, their governance and management and successful operation of water supply schemes

2.5. About implementing partners

Ambuja Foundation (ACF), the CSR arm of Ambuja Cements, was established in 1993 to foster rural transformation through a participatory and sustainable development model. Operating across 13 states in India, ACF addresses critical development challenges through a multi-sectoral approach that includes water resource management, agriculture, skill development, healthcare, education, women's empowerment, and rural infrastructure. Guided by its "True Value" framework, the Foundation emphasizes community ownership by engaging local stakeholders in needs assessment, planning, implementation, and monitoring, ensuring that projects are tailored to local contexts and deliver long-term impact. In recent years, ACF has amplified its reach and impact, with emphasis on rejuvenation of water bodies, promotion of agro-based and vocational livelihoods, and implementation of health and education interventions.

2.6. Project Geography



Figure 1 Administrative map of the Patancheru

Patancheru has a tropical savanna climate with highly seasonal rainfall, receiving about 846 mm annually, most of which falls during the monsoon months (July–September). August alone can receive ~197 mm, while February is nearly dry (~3 mm). This strong rainfall variability leads to high runoff during monsoon and low natural recharge in dry months, making watershed structures essential.

The region contains small lakes and tanks such as Patancheru Lake, and drains through local streams that feed into the Nakkavagu stream, which ultimately connects to the Musi River system. These water bodies act as micro-catchments essential for runoff storage and

groundwater recharge, but have faced pressure due to industrial activities affecting their hydrological functions.

Patancheru lies in the hard-rock hydrogeology zone of Telangana, where groundwater recharge is naturally limited and heavily dependent on monsoon rainfall. Industrial over-extraction and effluent discharge have further stressed aquifers, with reports showing excess water use and contamination by pharmaceutical units. This impacts recharge quality and increases the need for pollution-controlled, recharge-focused watershed planning

03

Approach & Methodology

3. APPROACH AND METHODOLOGY

The chapter provides details on the research design and methodology adopted for the impact assessment. It includes description of the key activities, data collection methods, and sampling strategies, employed to ensure the reliability and validity of the findings.

3.1. Our Approach

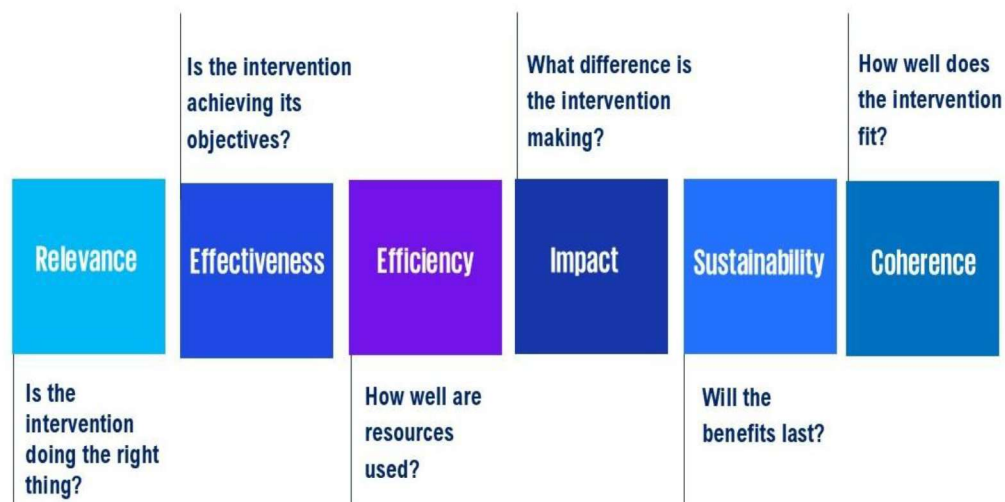
The study applied the OECD DAC and SROI frameworks to design the evaluation and measure the social returns and impacts generated by APL's CSR projects on water stewardship. The OECD DAC framework is a globally recognized approach for assessing the effectiveness of social development programs, while the SROI methodology goes beyond traditional economic metrics to capture broader social and environmental value.

A structured four-phase methodology was adopted to ensure a comprehensive evaluation. This approach integrated the principles of both OECD DAC and SROI throughout the process, enabling a robust assessment of outcomes and the overall impact of the program.

Phase I: Consulting and Scoping	Phase II: Research Design	Phase III: Data Collection	Phase IV: Analysis and Reporting
Kick-off meeting	Development of Impact Map	Development of field visit plan	Analysis of collected data using OECD DAC framework and estimating the SROI of the projects
Desk review of documents and reports related to the program	Mapping the stakeholders	Field visits and stakeholder interactions	Development of draft and final report
Determining the scope of the study	Designing sampling strategy and data collection tools		Presentation to APL Team

3.2. OECD-DAC

The Organization for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) introduced its evaluation criteria in 1991 as a structured framework for assessing development programs, whether ongoing or completed. This approach enables a systematic review of multiple dimensions of a program, offering both qualitative insights and quantitative measures of impact. The framework is widely recognized for its ability to evaluate effectiveness and relevance in social development initiatives. It is built around the following six key criteria, which form the basis for comprehensive program assessment under the OECD-DAC guidelines:



These evaluation criteria have been defined below along with illustrative questions:

Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
Relevance	A measure of the extent to which the intervention objectives and design respond to beneficiaries, global, country, and partner/institution needs, policies, and priorities, and continue to do so if circumstances change. ▪ To what extent are the objectives of the project still valid? ▪ Are the activities and outputs of the project consistent with the overall goal? ▪ Are the activities and outputs of the project consistent with the intended impacts and effects?	<i>Commitments of the stakeholders are integrated into Project design and planning</i>
Effectiveness	A measure of the extent to which the intervention achieved, or is expected to achieve, its objectives, and its results, including any differential results across groups. ▪ To what extent were the objectives achieved / are likely to be achieved? ▪ What were the major factors influencing the achievement or non-achievement of the objectives?	<i>Achieved cross-cutting objectives during project implementation</i>

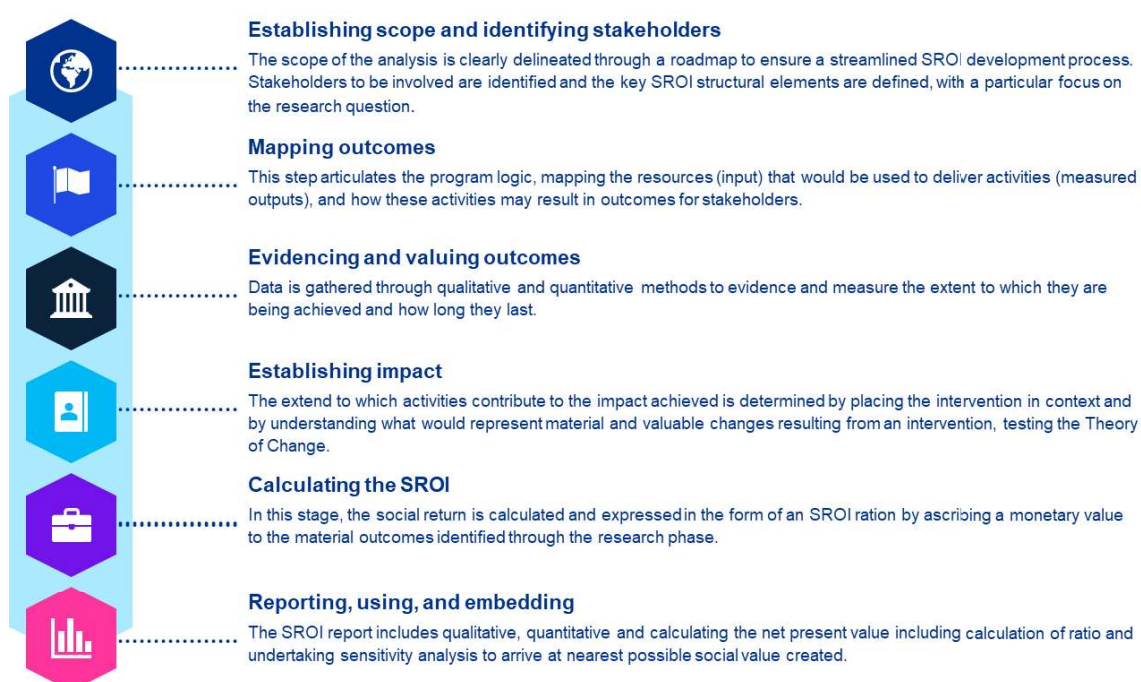
Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
Efficiency	A measure of the extent to which the intervention delivers, or is likely to deliver, results in an economic and timely way. ▪ Were activities cost-efficient? ▪ Were objectives achieved on time? ▪ Was the project implemented in the most efficient way compared to alternatives?	<i>Resources are provided and efficiently used for participation of all stakeholders</i>
Impact	A measure of the extent to which the intervention has generated or is expected to generate significant positive or negative, intended, or unintended, higher-level effects. ▪ What has happened as a result of the project? ▪ What real difference has the activity made to the beneficiaries? How many people have been affected?	<i>Achieved real and long-lasting positive changes in the lives of intended beneficiaries</i>
Sustainability	A measure of the extent to which the net benefits of the intervention continue or are likely to continue. ▪ To what extent did the benefits of a project continue after donor funding ceased? ▪ What were the major factors which influenced the achievement or non-achievement of sustainability of the project? ▪ What can be some of the innovative ways to make the project sustainable in the long run?	<i>Likelihood that project achievements will continue after project</i>
Coherence	A measure of the extent to which the intervention is compatible with other interventions in a country, sector, or institution. ▪ Does the project address the synergies and interlinkages between the intervention and other interventions in	<i>The extent to which other interventions (particularly policies) support or undermine the intervention and vice versa.</i>

Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
	the same organisation and in the same sector/policy landscape? Does it weaken or enhance the impact of any current programs or policies? Does the program lead to duplication of efforts?	

3.3. Social Return on Investment (SROI)

Social Return on Investment (SROI) is a structured approach designed to capture and measure the broader value created by an investment. It covers the social, environmental, and economic benefits that traditional cost-benefit analyses often overlook. This methodology assigns monetary values to social and environmental outcomes, enabling organisations to calculate how much value is generated for every rupee spent on a program. Unlike conventional assessments, SROI focuses on changes that matter most to stakeholders, providing a clear picture of the social impact of projects and policies.

By using SROI, organisations can demonstrate the social value their initiatives deliver, gain deeper insights into stakeholder impact, and integrate these findings into strategic decision-making. It is fundamentally about value rather than just financial returns and can be applied to an entire organisation or a specific program. The approach uses a theory of change or impact map to outline how interventions lead to measurable outcomes, expressed in monetary terms, allowing for a benefit-to-cost ratio calculation. SROI combines qualitative, quantitative, and financial data, along with case studies, to inform future planning. Its key advantage lies in going beyond identifying outcomes to valuing them and calculating their social worth. Steps of a SROI are as follows:



Setting the Scope 	Identification of stakeholders including beneficiary group, finalising the scope- setting the boundary of what is going to be considered for evaluative SROI - stakeholders including beneficiaries, impacts, program period, etc.
Mapping Outcomes 	Creating impact map, identifying investments, and valuing inputs, identifying outcome and indicators for monitoring / evidencing outcomes
Evidencing Outcomes 	Collecting and analysing outcome data and establishing how long the outcome will last
Establishing Impacts 	Identifying and valuing financial proxies, adjusting outcomes using deadweight, displacement, attribution and drop off, calculating the impact
Calculating SROI 	Programming the value of outcome into future based on the duration for which the impact will last, calculating the net present value including calculation of ratio and undertaking sensitivity analysis.

The process of calculation of SROI largely focuses on deadweight, displacement, attribution, and drop-off in association with any outcomes achieved. All these aspects are generally expressed as percentages and these percentages are applied to the financial proxy of each outcome to arrive at the total impact for the outcome. Therefore, we used a customised framework involving a combination of OECD-DAC and SROI to obtain a full picture of the impact created by APL.

3.4. Detailed Methodology

The following section discusses the methodology being employed by KPMG in this impact assessment, which has been broken down into four phases.

PHASE I: CONSULTING AND SCOPING

Activity 1: Inception Meeting

The initial step involved a scoping and kick-off meeting between the KPMG team and APL to finalize the work plan. The key tasks, timelines, and approach for the engagement were discussed. A detailed project plan was prepared by KPMG to guide the execution.

Activity 2: Desk Review and Stakeholder Engagement

The team conducted a thorough review of documents provided by APL, including concept notes, annual reports, and progress or closure reports. Secondary research was also conducted to gain an in-depth understanding of the project locations and interventions. Additionally, discussions with APL and implementing partners helped clarify KPIs, map external stakeholders, and define the sampling strategy and size.

PHASE II: RESEARCH DESIGN

Activity 1: Developing the Impact Map / Theory of Change

An impact map based on the theory of change was created to define the project's outcome and impact parameters. This map serves as a logical framework that illustrates how inputs (actions or activities undertaken) lead to outputs (immediate changes resulting from interventions), which then drive outcomes (short- or medium-term effects linked to those outputs) and ultimately generate impact (positive or negative, intended or unintended, direct or indirect) arising from the interventions.

Refer next for the impact map

Activity 2: Stakeholder Mapping and Sampling strategy

Stakeholder mapping is the process of identifying all the stakeholders involved in a project and their roles and responsibilities on one map. The main benefit of a stakeholder map is to get a visual representation of all the people who can influence the project and how they are connected. Stakeholders who experience change, whether positive or negative because of the interventions carried out were considered for the study. Furthermore, their pertinence to the scope of the study and relevance to the overall analysis were assessed.

Impact map

Stakeholder	Project Objectives	Inputs	Output	Outcome	Evidence Indicator
Farmers, Community members FPO/VI/WUA	To promote basic supplementary irrigation facilities by creating and strengthening water harvesting structures and increase water storage and availability; To improve and stabilize surface soil to convert unirrigated land to irrigated land. To organize and strengthen the village institutions around water harvesting and related livelihoods	Construction and refurbishment of check dams, ponds and other WHS, Capacity building, Access to Finance, Time	Number of families reached out / availed benefits of check dams and other water harvesting structures	Increase in agricultural production	Changes in availability of cultivated land Changes in cropping pattern by farmers Changes in multi-seasonal cropping
				Access to secure livelihood	Changes in the input cost required for agriculture
				Creation of sustainable water supply	Changes in the irrigation fed agriculture, changes in the availability of water, reduced dependency on the other sources of water
				Creation of employment opportunities	Changes in the labour employment by the local population
			No. of families benefited from Group wells & Borewell	Access to potable water	Reduction in water borne diseases (Improvement in health), reduction of drudgery (time saved)
				Access to secure livelihood	Changes in the input cost required for agriculture, adoption of improved agriculture practices
			No. of village institutions benefited	Establishing community stewardship over the common water resources	Community led governance of its resources, effective operations, and maintenance of water structures
			Increase in water storage capacity	Improved biodiversity in the catchment area	Increase in biomass in command area, Improved bio-diversity – presence of bird and animal species, Improved soil health, Reduced soil pollution.



Sampling of stakeholders for engagement was done based on the materiality of the stakeholder and the extent of the impact on the stakeholder. Considering the overall outreach of the project as nearly 175 beneficiaries. The stakeholder-wise mode of interaction has been detailed out below:

Stakeholder type	Universe	Sample	Actual coverage
Farmers Benefitted due to water intervention	175	100	100
PRI members Members from benefitted villages		-	4

Stakeholder	Reason for Inclusion	Data collection tool
Farmers who have been benefitted due to water harvesting related interventions	Since the farmers are the direct beneficiaries of this study hence it is important to include them to understand if the objectives of this program have been met.	Structured Questionnaire: were developed In-depth Interview: were also undertaken
Farmers who have been benefitted due to agriculture related interventions	Agriculture is a key intervention, Hence, it is critical to get their perspective of the beneficiaries	Structured Questionnaire: were developed for Farmers In-depth Interview: were also undertaken
Community members benefitted due to potable drinking water	The community members from the intervention area have been a key stakeholder and receiver of the impact hence, it is important to get their perspective.	Semi-structured Questionnaire: were developed for community members
WUA members	In order to understand the governance mechanism established over the water usage, these stakeholders are important	Structured Questionnaire: were developed In-depth Interview: were also undertaken
PRI Members and government officials	To understand holistic view at village level or administration level Structured Questionnaire: were developed	Structured Questionnaire: were developed In-depth Interview: were also undertaken
Stakeholders excluded from the study		
Community members from periphery of intervention villages	Excluded - It was understood from the implementing team that due to no direct intervention, these stakeholders will remain outside the scope of the intervention	Not applicable

The study includes three categories of beneficiaries: primary, secondary, and tertiary. Farmers, as the direct and intended recipients of project interventions, constitute the primary beneficiaries. Their family members and other community stakeholders constitute the secondary beneficiaries. Additionally, interactions were conducted with institutional stakeholders such as Panchayati Raj Institution (PRI) representatives and government officials, who constitute the tertiary stakeholders.

Activity 3: Development of Data Collection Tools

The study adopted a mixed-methods approach, combining quantitative and qualitative techniques for data collection and analysis. Initially, a comprehensive desk review was conducted to assess existing knowledge and identify gaps for further investigation. Following the literature review and research design, survey instruments were created based on the impact map to gather both quantitative and qualitative data from a sample population using offline methods. These tools captured participants' experiences, attitudes, and behaviors. Additionally, semi-structured interviews were designed for key stakeholders, including experts, PRI members, government officials, community leaders, and practitioners, to gain deeper insights into the research topic and emerging best practices. All tools were aligned with program objectives and the scope outlined in the RFP, with additional questions incorporated to enrich the case study. The tools developed include:

- Tools for individual interactions
- Tools for focus group discussions
- Tools for other key stakeholder interactions
- Development of a research and data collection plan

PHASE III: DATA COLLECTION

Activity 1: Development of Field-Visit Plan

Stakeholder interactions were planned in coordination with APL and the project implementing partner. A detailed timeline was prepared for the field visits, with the implementation partner providing support for scheduling meetings, mobilizing stakeholders, and arranging translators where necessary. The team also consulted with the partner to anticipate potential challenges such as language barriers, cultural sensitivities, or safety concerns. These measures ensured that the data collection process was efficient and conducted in an ethical manner.

Activity 2: Conducting Field Visits

Stakeholder consultations were carried out through individual interviews, focus group discussions (FGDs), and key informant interviews (KII). To ensure effective communication, KPMG included facilitators with prior experience and proficiency in local language. The data collection team underwent training and sensitization sessions to engage stakeholders appropriately. Before the main exercise, tools were pre-tested. Throughout the process, data collection was closely monitored for completeness, accuracy and consistency, including backchecks and triangulation.

PHASE IV: ANALYSIS AND REPORTING

Activity 1: Data analysis and preliminary findings

During the data analysis, both qualitative and quantitative analysis were conducted on the data collected. To enhance accuracy and reliability, the findings from the quantitative data collected on the disaggregated basis, allowing for a detailed understanding of the specific areas involved. To calculate the social returns and impacts resulting from the program, the SROI framework and OECD-DAC framework were utilized. Additionally, a sensitivity analysis was conducted to examine the results of the ROI. The data and observations obtained during the primary data collection phase and document review were carefully analysed to inform report writing. The findings were further scrutinised basis the assurance standards for SROI assessments.

Activity 2: Development of Report and Presentation

A comprehensive report was prepared for Asian Paints Limited at the enterprise level, capturing key observations, analyses, findings, and recommendations from the assessment. The report adhered to OECD-DAC and SROI framework guidelines to ensure accuracy and relevance. A draft version was shared with APL for review and feedback prior to finalisation. The finalised report was then presented to APL's leadership. Additionally, separate project-level reports were developed, providing detailed data and analysis. All collected data and corresponding analyses were also shared with APL.

04

Analysis and Findings

4. ANALYSIS AND FINDINGS

The section below highlights the findings and observations based on the interactions conducted with sampled beneficiaries of the Water for Livelihood program supported by Asian Paints Limited, across seven villages named Begumpet, Devulapally, Kasala, Malkapur, Narayanpur, Thuljarampet, Yellammaguda in Patancheru block of Sangareddy district in Telangana.

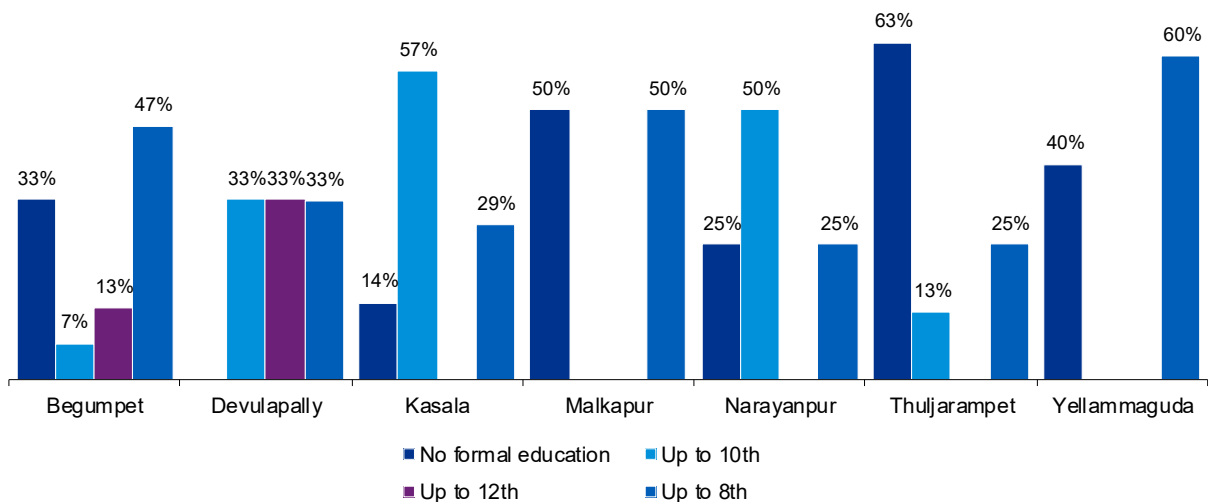
4.1 Demography of Respondents

Gender Distribution

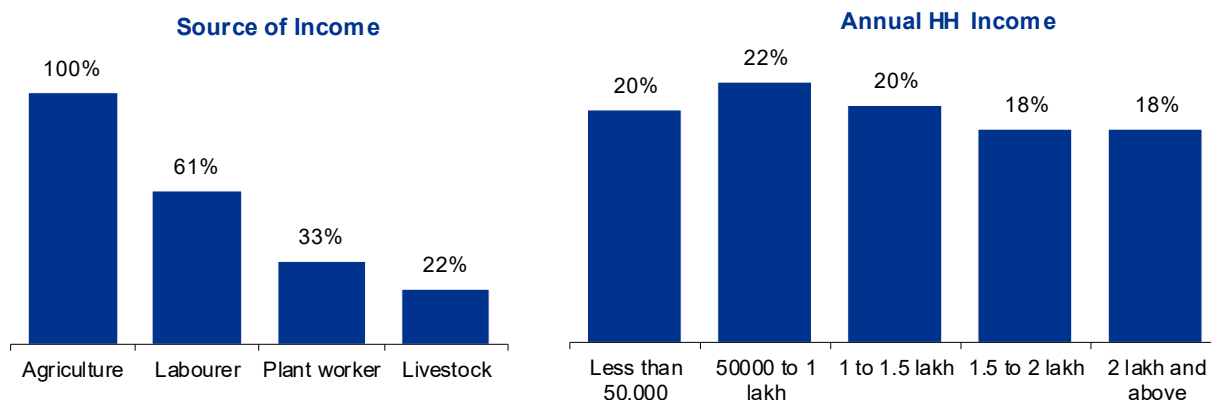
100%
male farmers across various villages

The gender distribution of the respondents engaged during the assessment was entirely male, with 100 percent of the surveyed sample consisting of male farmers. Although the project's overall beneficiary base included both men and women, women were not represented in the surveyed group. Their absence was largely due to household responsibilities and other constraints that limited their availability for community meetings and consultations.

Educational Status

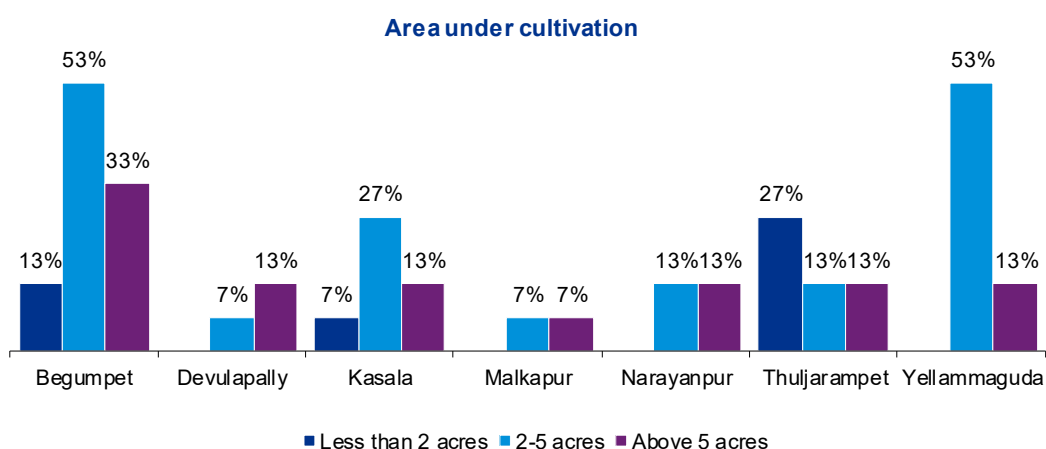


The educational status of the beneficiaries shows that most respondents have been able to access basic schooling, though progression varies across locations. Thuljarampet and Yellammaguda record the highest share of individuals educated up to Class 8, at 63 percent and 60 percent respectively, indicating relatively strong primary-level reach in these areas. Kasala, on the other hand, stands out for secondary-level education, with 57 percent of respondents having studied up to Class 10. At the same time, a few locations continue to face foundational challenges such as in Begumpet, 33 percent of beneficiaries reported having no formal education, and Malkapur reflects a similar gap with 29 percent in the same category. Higher-secondary completion remains minimal across all sites.

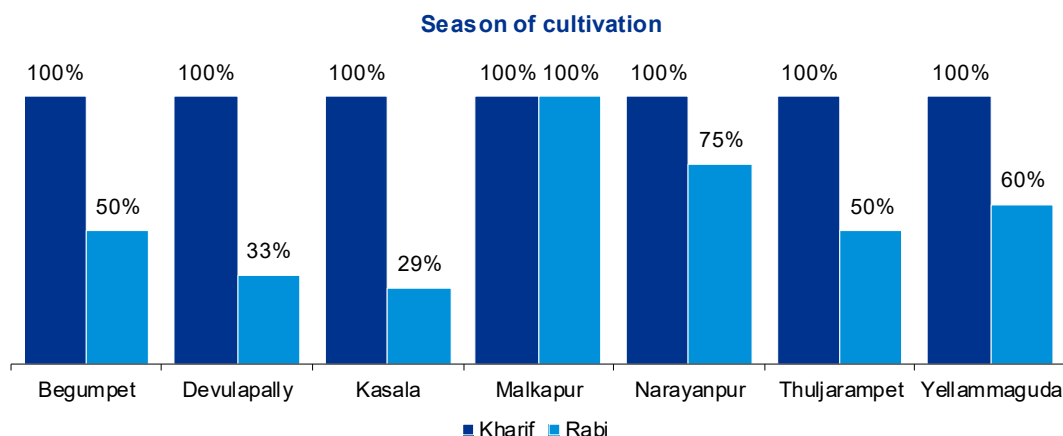


The analysis of income sources shows that the community is predominantly dependent on agriculture, with all respondents (100 percent) identifying it as their primary livelihood. Additional sources such as labour work (61 percent) and livestock rearing (22 percent) suggest that many households diversify their efforts, but largely within low-earning, informal sectors. This livelihood pattern is reflected in the annual household income distribution, where a substantial share of families, i.e., 44 percent earns below ₹1 lakh per year, including around 20 percent earning less than ₹50,000. Only 18 percent of the surveyed respondents reach the upper bracket of ₹2 lakh and above. These income levels indicate that while households are engaged in multiple economic activities, the returns remain modest and often insufficient to provide financial stability. With most families depending mainly on agriculture and earning on the lower side annually, their income is easily affected by seasonal changes. This also means they have limited savings or support to manage unexpected expenses.

Area and Season of Cultivation:

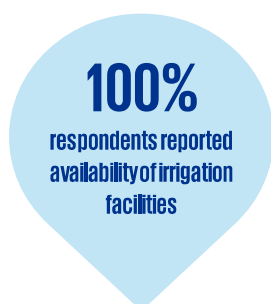


The analysis of landholding patterns shows that most beneficiary households operate on relatively small pieces of land, indicating a predominantly small and marginal farmer profile. A significant proportion of respondents cultivate less than 2 acres, with locations like Begumpet and Yellammaguda each reporting over 50 percent of farmers in this category. Medium-sized holdings of 2 to 5 acres are present across villages but in comparatively smaller proportions, while only limited households possess more than 5 acres, highlighting restricted access to larger agricultural land.



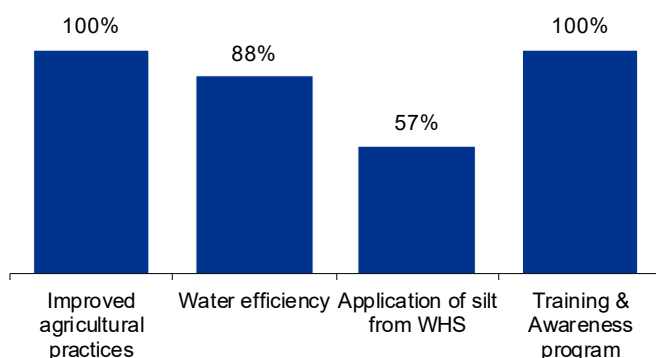
In terms of cropping cycles, all beneficiaries (100 percent) cultivate during the Kharif season, reflecting a strong dependence on monsoon rainfall. While interacting with the farmers it was understood that, earlier, only a small proportion of farmers, mainly those who already had access to irrigation facilities, were able to cultivate beyond the monsoon period. However, post-intervention, a larger segment of respondents has begun to take up Rabi cultivation as well. This increase is visible in several locations where Rabi participation now ranges between 50 percent to 75 percent, marking a positive change in year-round agricultural activity.

Status of Irrigational Facility:



The assessment of irrigation facilities among the surveyed beneficiaries indicates complete coverage in the post-intervention period, with 100% of households reporting access to irrigation facilities. Prior to the intervention also, majority of the surveyed farmers had access to irrigation facilities such as borewells or wells.

Support received from the intervention:

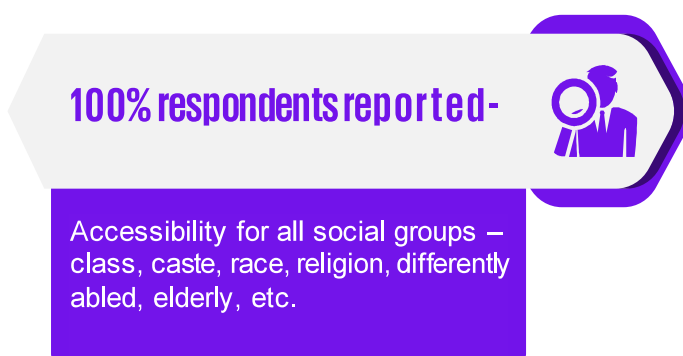


Beneficiaries reported receiving a range of support through the intervention, all the farmers reported benefiting from improved agricultural practices and 88 percent benefitted from water efficiency measures. These components formed the core of the project's outreach and reflect its focus on strengthening day-to-day farming practices and helping households manage water more effectively. More than 50 percent of respondents received silt application support, and all the respondents received training or awareness inputs, which served to improve soil conditions and enhance knowledge on

better cultivation methods. Overall, the distribution of support shows that the project prioritized interventions with immediate relevance to smallholder farmers, while also integrating complementary measures that build longer-term capacity. The combination of practical field-level improvements and

knowledge-oriented activities suggests a balanced approach aimed at improving productivity, resource efficiency, and resilience across the beneficiary communities.

About Accessibility of the project across all community groups:



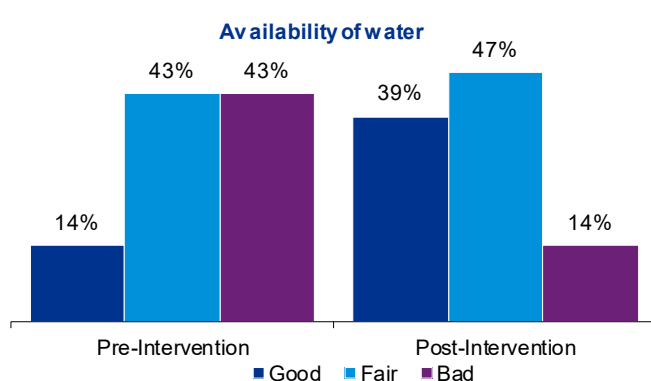
Analysis reflects the level of inclusivity in the project's activities. The KPIs-accessibility for all social groups is a critical measure of the project's social inclusivity, and the data indicates that the project has performed well, with a 100% accessibility rate. This indicates that the project has taken the necessary measures to ensure that all social groups, regardless of caste, class, race, religion, or other factors, have equal access to the support

interventions. This demonstrates the project's commitment to social equity and inclusion. By improving accessibility for all social groups, the project can ensure that the benefits of its activities are shared equitably, promoting sustainable development in the region.

4.2 Water Harvesting Structure

As part of the impact evaluation, consultations were conducted with beneficiaries to understand their experiences and gather feedback on the interventions. All respondents reported that the water-related activities had a positive impact on their livelihoods, indicating a high level of satisfaction with the project's efforts in this area. Beneficiaries also noted that they were engaged during both the planning and implementation stages, and that their inputs were considered in decision-making. This reflects the project's strong emphasis on participatory processes, which is essential for ensuring community ownership, effective implementation, and long-term sustainability of the interventions.

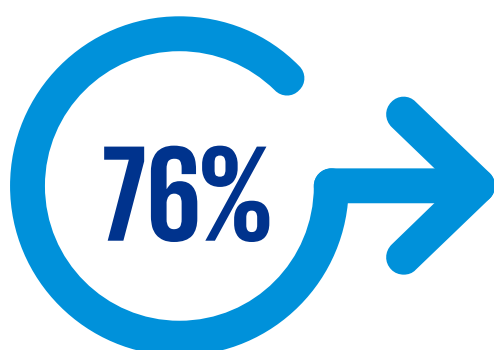
4.2.1. Impact on availability of water



The assessment indicates a clear improvement in the availability of water following the intervention. In the pre-intervention scenario, a large share of respondents' 86 percent reported fair and poor water availability, with very few experiencing good access. Post-intervention, this pattern shifts noticeably. The proportion of households reporting good water availability rises to 39 percent, and those rates as fair increases to 47 percent, while 14 percent respondents still experience poor availability drops and this could be possibly those who were

not directly covered by the structures or live in areas where water distribution and recharge are still limited.

Accessibility of water:



The intervention has led to a clear improvement in the accessibility of water for most households. A large majority of respondents shared that accessing water has become easier after the operationalization of the water harvesting structures. This indicates that communities now experience more reliable and convenient water access, with reduced dependence on distant or inconsistent sources. The small proportion of 24 percent respondents who reported no improvement may be because their farmland is located farther away from the water harvesting structure, limiting the direct benefits they can experience.

Duration of availability of water in Water Harvesting Structure/Borewell/Well post intervention:

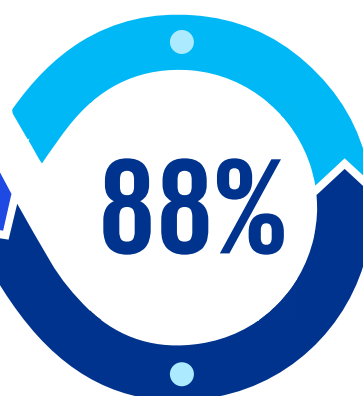
Duration of surface water availability in Water Harvesting Structure post intervention

100 percent respondents indicated that Water Harvesting Structure held water for 2-4 months, post intervention, whereas earlier the water retention rate was very low post monsoon season

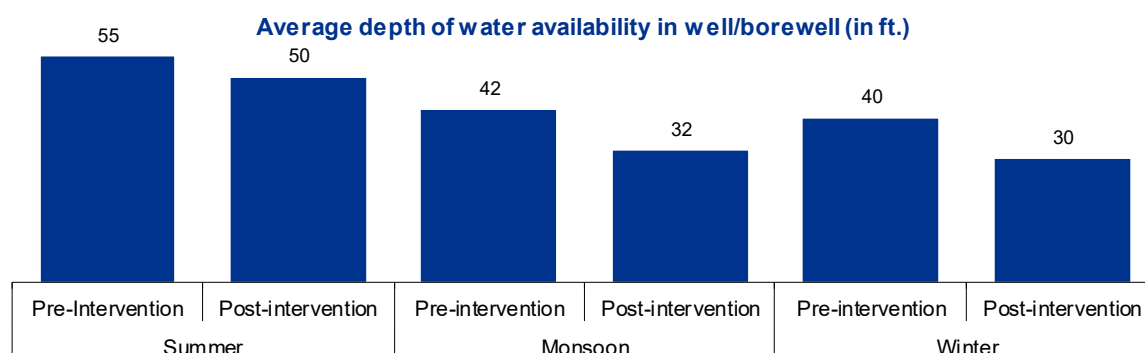


Duration of water availability in well/borewell post intervention

88 percent reported that water levels in their wells and borewells remained elevated for 2-5 months after the intervention, prior while a smaller proportion experienced an increase lasting barely up to 1-2 months



Depth of water availability in well/borewell:

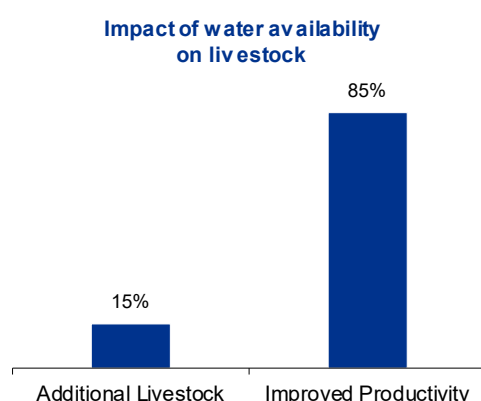


Beneficiaries owning wells and borewells reported a clear improvement in the depth of water availability across all seasons following the construction of the water harvesting structures. The most noticeable improvement is observed during the monsoon and winter seasons, reflecting better groundwater recharge and retention. During the monsoon, the depth at which water was available improved by

around 24 percent, indicating that the structures helped slow surface runoff and allow more rainwater to percolate into the ground. Winter also shows a strong positive change, with an improvement of about 25 percent. This suggests that groundwater recharged during the monsoon is now being retained for longer periods, enabling wells and borewells to remain functional beyond the rainy season. Even during the summer months, which are typically marked by high water stress, an improvement of around 9 percent is observed. Although relatively smaller, this change indicates some reduction in seasonal water scarcity.

Overall, the consistent improvement in water depth across seasons highlights the effectiveness of the intervention in strengthening groundwater availability. The improved depth and stability of water levels have made access to water more reliable, supporting both agricultural activities and household water needs.

4.2.2. Impact on Livestock



The improved availability of water following the intervention has had a positive, though varied, influence on livestock-related outcomes within the community. For nearly half of the respondents, better water access has directly contributed to improved livestock productivity. This suggests that livestock are now benefiting from more regular drinking water and improved hygiene conditions. These factors collectively support healthier animals, better milk yield, and reduce stress during dry periods. While interacting with the beneficiaries it was understood that milk production increased by 29 percent, resulting in a 22 percent rise in income from livestock, indicating that improved

access to water has positively contributed to strengthening household livelihoods through enhanced dairy activities

A small proportion of households reported an increase in their livestock numbers. This indicates that a few beneficiaries now feel more confident in expanding their herd size, likely due to reduced uncertainty around water access which is a key limiting factor in livestock rearing. At the same time, for an almost equal share of respondents, the impact was not directly applicable. This could be because some households do not own livestock or engage minimally in livestock-related activities.

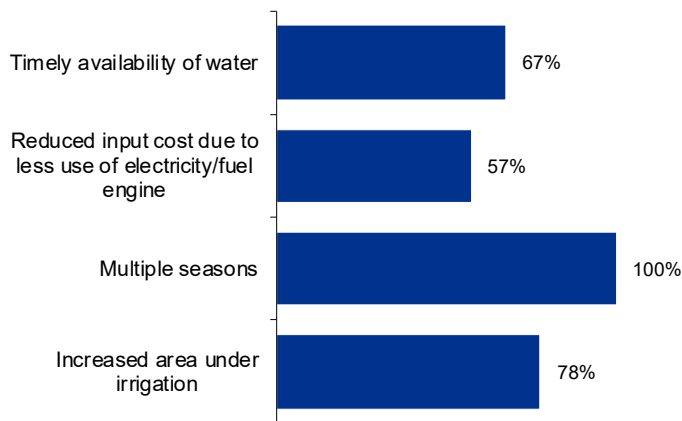
4.2.3. Impact on farming practices



The intervention has significantly influenced farming practices across the project locations, leading to more reliable and productive agricultural activity.

The intervention has led to noticeable improvements in farming practices among the beneficiary households, largely driven by improved water availability. 67 percent of farmers reported timely availability of water, which has helped them undertake agricultural activities at the right stage of the cropping cycle. This has reduced delays in sowing and improved overall crop management. The availability of water has also enabled all beneficiaries (100 percent) to practice farming across multiple

Impact of the intervention on farming practice

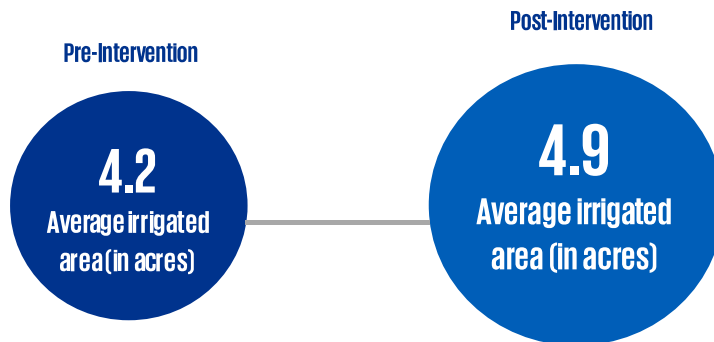


seasons, indicating a clear shift from single-season dependence to more continuous agricultural activity.

Further, 78 percent of respondents reported an increase in the area brought under irrigation, suggesting better utilisation of existing land due to improved water access. This expansion reflects greater confidence among farmers to invest effort

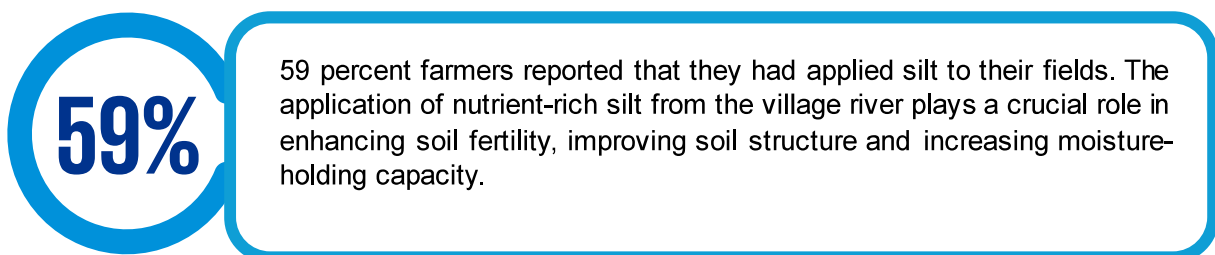
and resources into cultivation. Additionally, 57 percent of beneficiaries experienced a reduction in input costs, mainly due to lower dependence on electricity or fuel-based pumping, resulting from improved groundwater levels. Overall, these changes indicate that the intervention has positively influenced farming practices by improving water reliability, reducing operational costs, and enabling multi-season cultivation.

Impact on area of irrigation:



The analysis shows a clear expansion in the irrigated area after the intervention, with the overall coverage increasing by about 15 percent. The strongest relative gain is seen in Malkapur (33 percent), indicating substantial improvement in water access and utilisation of previously under-irrigated plots. Kasala (18 percent) and Devulapally (17 percent) also record notable growth, while Begumpet (13 percent) reflects steady improvement, suggesting broad but location-specific progress. These percentage shifts indicate that the water-harvesting structures have improved reliability of supply and enabled farmers to bring additional land under assured irrigation. Villages showing higher gains are likely closer to the command area or benefit from better distribution and field channels, while places with moderate increases may still face conveyance or maintenance constraints.

Silt Application:



Average increase in yield and delta change for various crops

Crop 1- Paddy



Rice is a staple food in the villages of Patancheru yet productivity from paddy cultivation is constrained by irregular water availability and partial dependence on monsoon rainfall. Paddy is a water-intensive crop that requires reliable and sustained moisture. The improved water availability following the construction of water harvesting structures has had a transformative effect on paddy cultivation across the project villages. Farmers reported more reliable irrigation during sowing and grain formation stages, which directly contributed to substantial productivity gains. At village level the intervention has led to a consistent rise in paddy yields, with average gains ranging from about 31 percent to 39 percent over pre-intervention levels. The strongest improvement is observed in Malkapur (39 percent), followed by Devulapally (35 percent) and Narayanpur (34 percent), indicating that better water reliability and timely farm operations translated into measurable productivity gains.

Crop 2- Toor



The intervention has resulted in a substantial improvement in Toor yields across all surveyed villages, indicating the strong influence of improved water availability on pulse cultivation. Yield increases range widely, from about 66 percent to as high as 200 percent, reflecting varying baseline conditions and levels of benefit from the intervention. The most significant improvement is observed in Malkapur, where yields increased by around 200 percent, followed by Thuljarampet (about 180 percent) and Begumpet (around 146 percent). These large gains suggest that farmers in these villages were previously constrained by limited or uncertain water access and have benefited greatly from improved moisture availability during critical crop stages.

Other villages also report strong improvements, with Kasala (about 140 percent) and Narayanpur (around 128 percent) showing marked yield gains, while Devulapally (about 109 percent) reflects a more than doubling of output. Yellammaguda, though recording a relatively lower increase of around 66 percent, still demonstrates a meaningful improvement compared to pre-intervention levels. Overall, the consistent rise in Toor yields across locations highlights the effectiveness of the water harvesting structures in supporting moisture-sensitive crops, improving crop performance, and strengthening farm productivity.

4.2.4. Impact on drinking water

87%

The intervention has resulted in a noticeable improvement in drinking water conditions across the project villages. About 87 percent of respondents reported better availability of drinking water after the construction of the water harvesting structures, indicating strengthened and more reliable access for households. In addition to increased availability, respondents also observed an improvement in water quality. The enhanced groundwater recharge brought about by the check dams appears to have contributed to clearer, better-tasting water, which households perceive as safer and more suitable for consumption.



4.2.5 Impact on personal life

The Water Harvesting Structures have brought notable improvements in the personal lives of beneficiary households. While none of the community members surveyed have invested in major asset creation, their overall standard of living has improved significantly. Before the intervention, most families practiced subsistence farming and struggled to generate surplus income. With improved water availability, nearly 100 percent of respondents reported earning almost twice their earlier income. A large share of this additional income is being reinvested into agriculture such as better inputs and expanded cultivation to further increase productivity. This shift from survival-based farming to more stable and profitable agriculture has reduced financial stress, improved household well-being, and contributed to better socio-economic resilience across the community.

4.3 Water Governance

4.3.1 Member of WUA Group

20%

Respondents confirmed of being member of WUA

The assessment shows that a small proportion of respondents are members of Water User Association, indicating a lower attainment for collective engagement in water management. However, discussions with the community reveal that although these Water User Associations have been formed, all of them remain largely dormant and are not functioning actively. At the same time, around 80 percent of respondents are not part of any such group.

4.3.2 Separate fund for O&M

Amongst the respondents who are members of Water User Association, none of them have created any such fund. Discussions with the community indicate that this is primarily because the newly constructed check dams are perceived to be structurally strong and durable, with an expected lifespan of nearly 20–25 years, thereby requiring minimal maintenance in the short term. Beneficiaries also compared these structures with earlier government-built check dams, which they felt deteriorated within just 3–5 years, reinforcing their belief that routine maintenance is unnecessary at present.

Additionally, lack of awareness and knowledge regarding the importance of O&M funds could be a possible reason for lower participation in creation of separate funds. Though the Water Harvesting Structures have created significant impact in the lives of beneficiaries, however there must be guiding bylaws and O&M processes in place for long-term sustainability of the intervention.

4.4 Agriculture and Livelihood

4.4.1 Impact on agricultural land

The analysis indicates a clear increase in cultivable land following the intervention, reflecting improved water access and greater confidence among farmers to utilise a larger share of their holdings. Overall, cultivable area expanded by around 17 percent, pointing to a positive shift from partial or seasonal cultivation towards more consistent land use. The most significant improvement is observed in Malkapur, where cultivable land increased by about 33 percent, suggesting that previously under-utilised plots were brought into active cultivation due to improved water availability. Devulapally and Kasala also record notable gains of around 18 percent each, indicating steady expansion supported by more reliable irrigation conditions.

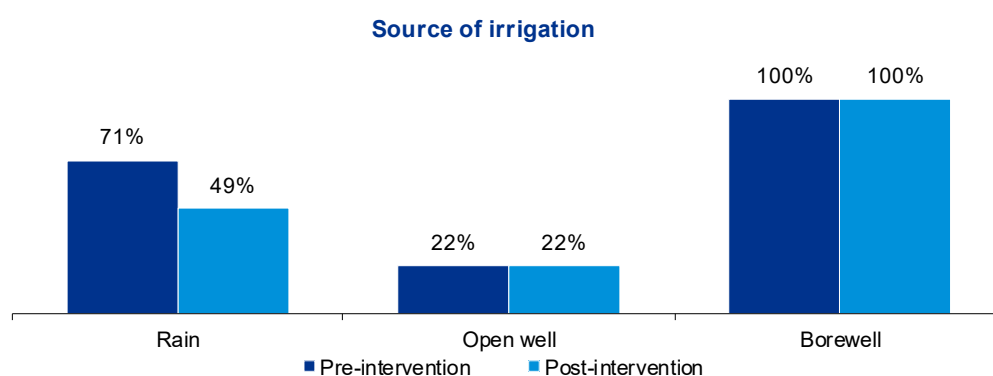
These changes suggest that improved water availability has reduced earlier constraints that limited land use. As a result, farmers appear more confident in cultivating a larger portion of their land. The expansion of cultivable area is likely to support more consistent cropping, better use of farm inputs, and improved agricultural productivity.

4.4.2 Impact on Mode of Irrigation



The analysis of irrigation practices indicates a clear preference for both localized and surface/flood irrigation methods among beneficiary households, reflecting improved access to water for agricultural use. Begumpet accounts for the highest proportion at 31 percent, indicating wider adoption and use of available irrigation methods in this location. Yellammaguda (20 percent) and Thuljarampet (16 percent) also represent notable shares, highlighting steady uptake of irrigation practices supported by improved water availability. Kasala, with 14 percent, reflects moderate adoption, indicating gradual improvements in irrigation access.

4.4.3 Impact on Source of Irrigation



The intervention has brought a noticeable change in the sources of irrigation used by beneficiary farmers, indicating a gradual shift towards more reliable water sources. Prior to the intervention, a large proportion of farmers (71 percent) depended on rainfall for irrigation, highlighting a high level of vulnerability to monsoon variability. Following the intervention, this dependence has reduced to 49 percent, suggesting that farmers are now less reliant on rainfall alone for meeting their irrigation needs.

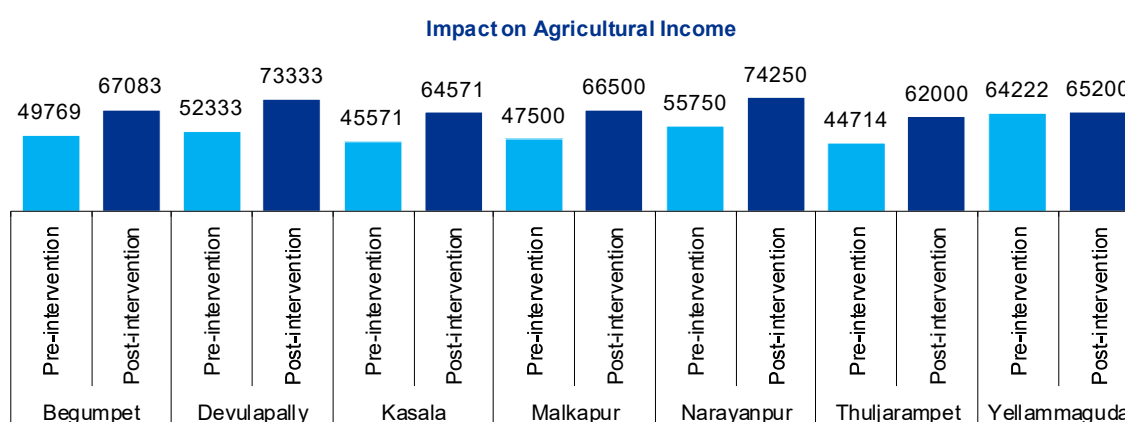
The use of open wells remains stable at 22 percent in both pre-intervention scenarios, indicating continued dependence on this traditional source, particularly among households with existing well infrastructure. At the same time, borewells continue to be used by all respondents (100 percent), reflecting their importance as a dependable source of irrigation, especially during periods of low rainfall.

Overall, the reduction in rainfall dependency, alongside sustained access to groundwater sources, suggests that the intervention has helped farmers diversify and stabilise their irrigation sources. This shift is likely to have reduced irrigation-related risks, supported timely agricultural operations, and improved resilience against climate variability.

4.4.4 Impact on Agricultural Income



The analysis of agricultural income across the intervention villages shows a consistent upward movement, underscoring the positive impact of improved water availability and enhanced agricultural practices. Prior to the intervention, income levels were comparatively modest and reflective of limited cropping intensity and seasonal dependency. Following the intervention, all villages recorded a substantial rise in agricultural income, with increases ranging from 2 percent to 42 percent.



Respondents from Tuljarampet experienced an approximate 39 percent increase in income, while Begumpet and Narayanpur recorded a rise of around 35 and 33 percent respectively, indicating strengthened productivity and possibly the adoption of improved inputs and diversified crops. Kasala and Devulapally witnessed some of the highest relative gains, with income increasing by nearly 42 percent and 40 percent, respectively. These significant jumps suggest that farmers in these villages were able to maximize the benefits of improved water security by expanding cultivated areas or growing higher-value crops.

4.4.5 Brand Recall

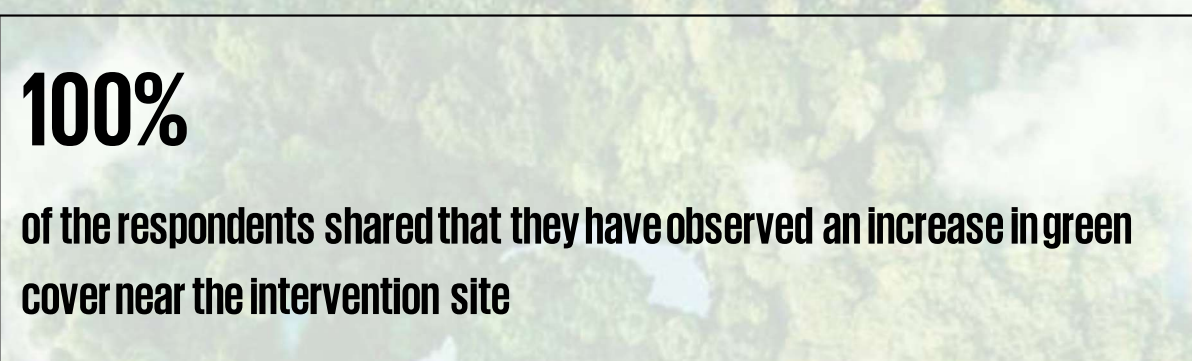
The stakeholder consultations revealed a strong brand recall for Asian Paints Limited (APL) among community members across the project villages. Beneficiaries clearly recognized APL as the primary donor supporting the water harvesting interventions, and this awareness was further reinforced by the physical branding at each check-dam site, displaying the APL branding along with details of the number of farmers and households benefiting from that particular asset. During interactions, villagers

consistently expressed gratitude for the support extended by APL, noting that the project has brought meaningful improvements to their agricultural productivity and daily lives.

4.5 Environment

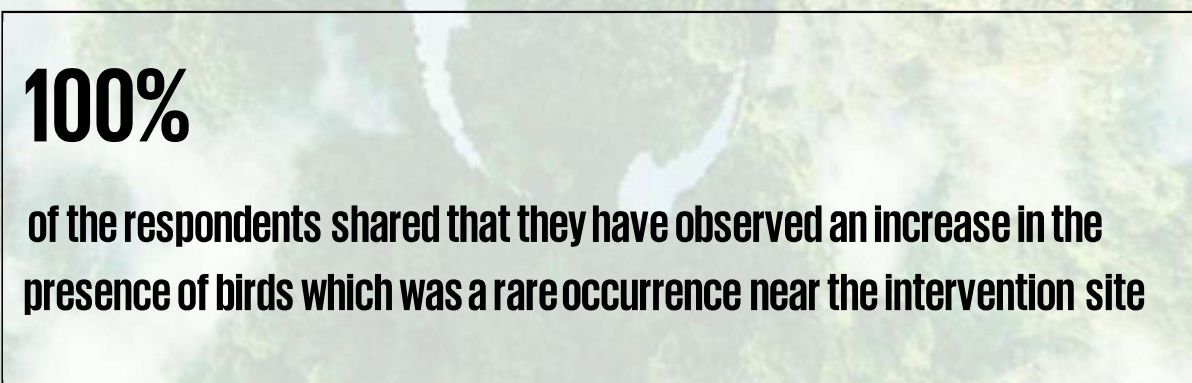
4.5.1 Impact on environment

During the interaction with PRI members, it was noted that green cover has increased over the last year around the intervention site, mainly due to an increase in the water level of surface water. This has positively resulted in increased frequency of bird visits along the pond site, previously we rarely used to have so many birds at one place



100%

of the respondents shared that they have observed an increase in green cover near the intervention site



100%

of the respondents shared that they have observed an increase in the presence of birds which was a rare occurrence near the intervention site

During interactions with Panchayati Raj Institution (PRI) members, it was observed that the green cover around the intervention site has increased notably over the past year. This improvement is primarily attributed to the rise in surface water levels, which has enhanced soil moisture and supported better vegetation growth in and around the watershed area. PRI members further noted that the improved water availability has had a positive ecological effect, particularly evident in the increased frequency and diversity of bird visits around the pond

4.5.2 Impact on soil and water quality

Soil Test

Village Name	PH	EC	OC	Nitrogen	Phosphorus	Potash
Yellamaguda	7.5	0.46	0.9	46	17	133
Thuljarampet	7.1	0.19	0.7	61	30	266
Devulapalli	7	0.3	0.9	81	27	310
Thuljarampet	6.3	0.13	0.4	46	24	158
Begumpet	7.5	0.19	0.7	51	24	241
Yellamaguda	7.2	0.18	0.4	61	24	229
Yellamaguda	7.6	0.32	0.4	56	40	180

The soil test results from beneficiaries' farmlands indicate that silt application has contributed positively to overall soil quality, while also revealing areas that need further attention. Soil reaction across the sampled fields remains within a favorable range, with pH values between 6.3 and 7.6, indicating that soils are largely suitable for crop growth. Electrical conductivity levels are consistently low, ranging from 0.13 to 0.46, suggesting that silt applications have not increased salinity risk. Noticeable variation is observed in soil fertility indicators. Organic carbon levels range from 0.4% to 0.9%, reflecting uneven improvement in organic matter across fields. Similarly, available nutrients show wide variation, with nitrogen differing by nearly 76%, phosphorus by over 135%, and potash by more than 130% across samples. These variations suggest that while silt has enriched soils particularly by improving phosphorus and potash availability, however the extent of benefit depends on the depth and uniformity of silt application.

Water Test

Good (Acceptable)	
Medium (Permissible)	
Harmful (Non-Permissible)	

Parameter	Thuljarampet	Devulapally
pH	7.26	7.1
EC (dS/m)	0.75	0.71
TDS (mg/L)	705	705
Chloride (mg/L)	45	54
Calcium (mg/L)	80	290
Magnesium (mg/L)	40	20
Nitrate (mg/L)	1.6	0.63
SAR	0.74	1.18
RSC (meq/L)	-0.40	0.2
Water Class	C2S1	C2S1

The water quality analysis from check dams and wells across the assessed villages indicates that the stored water is largely suitable for agricultural use and aligns well with recommended standards. The

pH values range between 7.1 and 7.3, reflecting neutral conditions and indicating no concern related to acidity or alkalinity. Electrical conductivity values remain below 1 dS/m, placing the water in the medium salinity category, which is acceptable for most crops with normal field management practices.

Total dissolved solids remain within permissible limits, suggesting moderate mineral content without posing risks to soil health. Chloride and nitrate levels are consistently low, indicating no immediate risk of salinity or nutrient toxicity. While calcium shows some variation, all values remain within or close to acceptable limits, and magnesium levels are moderate. Importantly, SAR values remain below 2, indicating very low sodium hazard.

4.6 Case Study



The desilting intervention carried out in Patancheru significantly improved water availability for local farmers, leading to measurable economic benefits. Before the intervention, most farmers struggled with acute water scarcity, relying heavily on borewells and facing high irrigation costs. One such farmer, cultivating around 2–3 acres of land, previously received usable water from the local tank for only about a month after the monsoon, which limited crop planning and often resulted in moisture stress during critical growth stages. After desilting restored the tank's storage capacity, water availability increased by an additional two to three months, ensuring reliable irrigation through late Rabi and early Kharif seasons.

Fig 1: Farmer from Begumpet village, Patancheru

This extended availability enabled the farmer to either grow an additional crop or significantly enhance yield in existing crops such as vegetables, paddy, or cotton. With reduced dependence on groundwater, irrigation expenses dropped, leading to savings on electricity and diesel. As a result, the farmer recorded improved productivity often 20–30% higher yields and an increase in annual income, with overall financial gains estimated between ₹25,000 and ₹40,000. The farmer shared that the assured water supply not only reduced stress but also boosted confidence in planning future crop cycles more effectively. The case highlights how a simple intervention like desilting can meaningfully improve rural livelihoods by strengthening water security and agricultural resilience.

Key impact Areas	Pre-Intervention	Post Intervention
Income	INR 25,000/year	INR 40,000/year
Cropping Pattern	Single season cropping (Paddy)	Multi-season cropping (Paddy, Horticulture for self-consumption and selling in market)

05

Measuring the Social Return

5. MEASURING THE SOCIAL RETURN

As explained in Chapter 2, this report has used two evaluation frameworks which are OECD-DAC and SRoI. Generally, OECD-DAC helps in gaining a qualitative understanding of the impact. On the other hand, SRoI helps organizations in evaluating changes which are being created by measuring social, environmental, and economic outcomes and providing monetary values to represent them. SRoI also helps in understanding the total value generated for every rupee invested for interventions.

There are two types of SRoI:

- Evaluative, which is conducted retrospectively and based on actual outcomes that have already taken place.
- Forecast, which predicts how much social value will be created if the activities meet their intended outcome.

For this study, both evaluative as well as forecasting SRoI has been considered. SRoI primarily involves six stages which are as follows:

Stage 1: Establishing Scope and identifying key stakeholders

Stage 2: Mapping outcomes

Stage 3: Evidencing outcomes and giving them a value

Stage 4: Establishing impact

Stage 5: Calculating the SRoI

Stage 6: Reporting

Stage 1 and Stage 2 have been discussed in-depth in Chapter 2. Further stages have been elaborated in the ensuing sections.

5.1 Evidencing Outcomes

After creating the impact map, outcome indicators were developed based on interactions with beneficiaries and other key stakeholders such as PRI members and implementation teams. Evidence of these outcomes was gathered through both primary and secondary data sources.

Quantity of Change: The quantity of change for the impact map was calculated by extrapolating responses from the sample to the entire beneficiary population. Based on the data collected, a proportionate percentage of total beneficiaries was estimated to represent the overall impact.

The details about the evidence indicators for the outcomes and the quantity of change against each indicator are provided below:

Duration of Outcome:

Some outcomes are long-term, lasting throughout a beneficiary's life, while others persist only as long as the intervention continues. For this SRoI analysis, impacts from infrastructure-related activities are considered for up to 5 years, whereas intangible interventions such as training are assumed to have an impact for 3 years. These timelines are based on the following assumptions:

- Water resource development creates lasting effects on groundwater and surface water levels, with corresponding economic and social benefits
- Training-based interventions require periodic updates due to technological, market, and climate changes

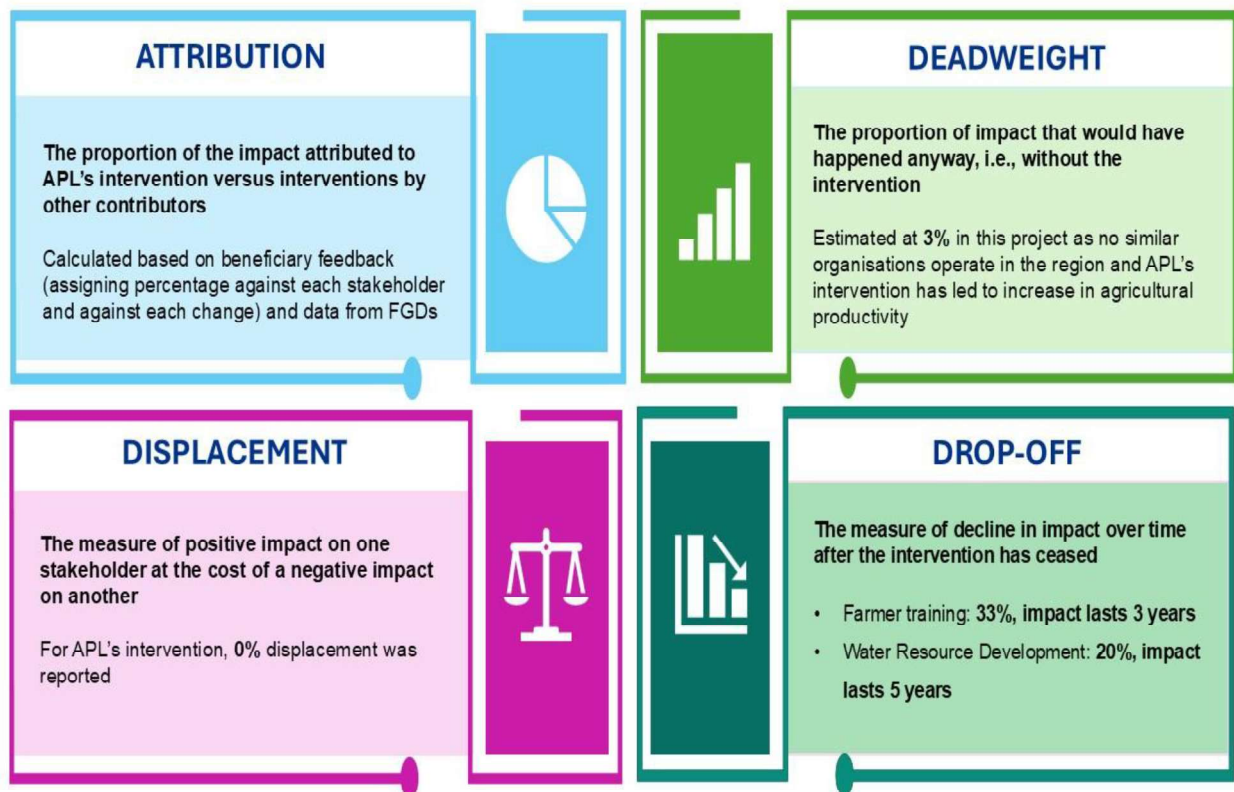
- Based on the nature of interventions and evolving income-generating activities, beneficiary and stakeholder contributions will eventually outweigh the impacts due to initial support from APL

Financial Proxy and Value of Financial Proxy:

To assign value to outcomes, financial proxies were used, following standard practice of using market prices where possible. For intangible outcomes without direct market value, the closest comparable proxy was identified. Refer to the table for outcome-wise details.

5.2 Establishing Impacts

An important part of SROI is 'measuring impact' by accounting for attribution, deadweight, displacement, and drop-off.



5.3 Calculating Impact

Impact = Quantity of outcome * Financial Proxy Value * (eight – Displacement – Drop-off for each year)

SROI is a ratio of cumulative present value for each outcome against the total investment in the project i.e., **SROI = Total NPV of social value / Total investment**

Total Input Value: For SROI calculation, inputs from APL, beneficiaries, and other stakeholders were considered, assuming all contributions collectively created the observed impact. Without any one of

these inputs, the current outcomes would not have been achieved. Inputs included financial contributions from APL, beneficiaries, and stakeholders, as well as the time invested by beneficiaries in training and exposure activities. Financial values were provided by APL, while non-financial inputs were estimated in consultation with the APL CSR team.

The below table represents the total cumulative investments from all the stakeholders towards the project from the time period 2023- 2024:

InputType	Input description	Total Inputvalue(INR)
Financial inputs	CSR Funding from APL	1,00,00,000
Total		1,00,00,000

Net Present Value: The Impact Value is adjusted to reflect the Net Present Value (NPV) of the projected outcome values. This is to reflect the present-day value of benefits projected into the future.

A **discount rate of 5 percent** has been used for the NPV calculations.

$$\text{SROI} = \{\text{Total present value of impact} / \text{Total input}\}$$

The below table depicts the NPV evaluated as of 2025 and forecasted for 2030 (considering the duration period of 5 years for each outcome):

5.4 SROI Results

The SROI for this analysis- evaluative SROI (as on 2025) and evaluative cum forecast SROI (as on 2030) - is derived from dividing the total present value of the impacts by the total input value of the investment. This is considered because the beneficiaries who have received the support in 2024 would realise the impact for the next 5 years i.e., by 2030.



The table below shows the SROI Value and the SROI Ratio before sensitivity analysis:

For every INR 1 invested, the programme has generated social impact of INR 1.88

Sensitivity Analysis: Our calculations to arrive at the results provided in this report are relied on a variety of primary and secondary data, but the beneficiary data showed a higher level of uncertainty. This survey was utilized to estimate the attribution, additionality of APL interventions to specific outcomes, and the duration of time the impact would last.

Sensitivity Analysis was used to test variables and assumptions to ensure that conservative estimates have been used in arriving at the SROI. For each impact area, we tested the impact of using one standard deviation above and below the average response to attribution survey questions.

With sensitivity computation, the value of the APL program can then be stated in a range. For every INR 1 invested, the social value generated is between INR 1.54 and INR 2.0

Sr. No.	Base case Parameters	Base case SROI	Test case Parameters (Min-Max)	Test case SROI
1	Deadweight	1.88	Deadweight is 0 percent	1.80
			Deadweight is 8 percent	2.079
2	Displacement		Displacement 0 percent	1.88
			Displacement is 5 percent	1.80
3	Attribution		Attribution is 85 percent	1.98
			Attribution is 75 percent	1.79
4	Drop-off		Drop-off is 3 years	1.54
			Drop-off is 5 years	1.99

Limitations & assumptions for the SROI study

- The study is limited to the sample of beneficiaries interacted with on ground during field visits.
- The survey conducted with sample beneficiaries is subjective in nature.
- The study is limited to the recall of the participants in the study.
- The financial proxies are limited to publicly available resources. The financial proxies are representative and based on professional judgement, but it may not be reflective of actual costs incurred due to several considerations. (Refer to Appendix B for details of financial proxies)
- The deadweight, displacement, drop off values are derived from the responses from the stakeholders.
- While information obtained from the public domain or external sources has not been verified for authenticity, accuracy, or completeness, we have obtained information, as far as possible, from sources generally considered to be reliable. However, it must be noted that some of these websites/third party sources may not be updated regularly. We assume no responsibility for the reliability and credibility of such information.

- SROI for the project may appear low due to contextual factors not fully captured in standard assessments. The project has a low direct beneficiary count, resulting in limited monetizable returns, and beneficiary recall may also be low when benefits emerge gradually. In several areas, high baseline agricultural productivity reduces measurable incremental gains. Additionally, many water structures hold significant religious, social, and cultural value for communities, benefits that are deeply impactful but not easily quantifiable, thereby contributing to a lower calculated SROI despite strong community relevance.

06

Way Forward

6. Way forward

The insights generated through Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) have provided a comprehensive understanding of the community's needs, existing gaps, and the evolving dynamics of water management and livelihood practices in the project geography. These interactions offered valuable perspectives from diverse stakeholders including farmers, women's, Water User Associations (WUAs), and Panchayat representatives highlighting both the achievements and the persistent challenges that influence development outcomes in the region.

Key issue (with evidence)	Recommendations
WUAs exist but many remain inactive or loosely structured.	The Water User Associations though exists but many are inactive and to revive those WUAs the following approach can be considered: • Ensuring proper mobilization and participation from different stakeholders from the community. • Provision of periodic handholding support to strengthen the functioning of WUAs • Help members clarify roles, hold regular meetings, and gradually take ownership of water-related decisions within their villages. • Conduct frequent training and awareness sessions on importance of WUAs and O&M fund
Lack of separate O&M Fund	Encouraging farmers to adopt a simple, community-managed contribution system where they should pool small amounts on yearly basis to support timely maintenance of water structures.
There is currently no structured system for regular monitoring or shared documentation to track changes in water levels, irrigation performance, or crop yields over time.	To address this gap, a simple community-level monitoring mechanism should be introduced. This may include maintaining a water ledger to record weekly staff-gauge readings, monthly observations of nearby tubewell depths, and basic intake and outflow details of water structures.

Annexure

(Financial Proxies used for SRoI)

Outputs	What changes?	How much?	How valuable?
Construction and refurbishment of Check dams/ Water Harvesting Structure	Creation of sustainable water supply through increment in availability and accessibility of water	Increase in water harvesting capacity (Quantum of Water Potential created or Water Harvested in Cubic Metre)	2.00
		Increased availability of water for irrigation - surface water from WHS (Number of farmers x Avg increase in Irrigated land)	314.00
		Increased availability of water in wells / borewells (number of farmers/community members x Avg increase in availability of water in months/days)	330.00
	Increased agriculture production due to increment in availability of water	Increase in availability of Net Sown Area (in Ha) (Number of farmers x Avg increase per farmer)	22602.78
		Increase in agriculture produce (Number of farmers x Avg increase in yield in the year)	2203.00
		Reduction in Cost of Cultivation (Number of farmers x Avg reduction in cost annually)	3270.83
		Reduction in Cost of Irrigation (Number of farmers using Mobile Engines for irrigation x Avg hours of irrigation)	400
Trainings/ Workshops/ Demonstrations/ Non-pesticide management/ Mulching	Increased agriculture production due to enhanced agriculture practice	Adoption of improved agriculture practices (% of members indicating adoption of improved agriculture practices)	1000.00
Availability of potable water for household consumption due to increased Ground water level and WHS	Increased quality an accessibility to potable water leading to improved health of community members	Reduction in Drudgery for members of household (number of households x Avg person-hours saved)	438.75
		Reduction in water borne diseases (number of households x % respondents indicating improvement in health)	661
	Increased access to water for animal husbandry activities	Increase in annual income due to availability of quality potable water for cattle and other animals (Number of households x % increase in milk yield)	52.00
Extended impact on community (beneficiaries and their family members)	Improved wellbeing for the beneficiaries and their family members	Improvement in Health seeking behaviour (Number of respondents reporting increased consumption of self-grown fruits and vegetables))	11246.61
		Improved sensitization towards child's education (Number of respondents reporting increased spend on child's education)	2067.36

Water quality classification

Understanding of Result			
	Good	Medium (restricted use)	Harmful
pH	6.50-7.50	6.51 to 8.00	< 6.51 and > 8.01
EC (ds/m)	< 0.30	0.31 to 2.0	> 2.0
TDS(ppm)	< 300	300 to 1000	> 1000
Chloride (meq./lit.)	< 7	7 to 20	>20
RSC	< 1.25	1.25 to 2.5	> 2.50
SAR	< 10	11 to 18	> 18

Snippets from onsite interactions



Fig 3: Famland from Thuljarampet village, Patancheru

Fig 2: Interaction with beneficiaries from Devulapally village, Patancheru



Fig 3: Interaction with beneficiaries from Malkapur village, Patancheru



IMPACT ASSESSMENT OF NAMMA JALA BHADRATE (MASS SCALE REJUVENATION OF WATER BODIES IN MYSURU) – Phase 3

Asian Paints Limited

March 2026



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Strictly Private and Confidential

Mr. Amit Kumar Singh

Vice-President, Corporate affairs & CSR

Asian Paints Limited

Mumbai, Maharashtra– 400055

India

24 March 2026

Subject: Final report for Impact assessment of CSR Projects

Dear Mr. Amit Kumar,

We appreciate the opportunity to assist Asian Paints Limited in providing **Impact assessment of CSR Projects** related services.

Please find enclosed our final report, which has been prepared in accordance with the scope and terms stated in our engagement letter dated 3rd February 2026. With this deliverable, we have completed our obligations as stated in our engagement letter.

It has been our privilege to have this opportunity to work with you, and we look forward to continuing our relationship.

Yours sincerely

Signed by:



Jignesh Phadkar, BE...

Partner,

KPMG Assurance and Consulting Services LLP

Disclaimer

- *Our report has been prepared solely for Asian Paints Limited. KPMG does not accept or assume any liability, responsibility, or duty of care for any use of or reliance on this report by anyone, other than our Client, to the extent agreed in the Agreement.*
- *Impact assessment is limited to the projects allocated by Asian Paints Limited*
- *OECD DAC and SROI framework has been used in preparing the report as detailed herein. No professional assurance standards ex. ISAE, SSAE etc. have been applied while preparing this report and accordingly the rigors applicable under such standards are not applicable for the scope covered by our report.*
- *Procedures, analysis and recommendations, if any, are advisory in nature basis the information collected from various sources both publicly and those provided by the client.*
- *Our observations represent our understanding and interpretation of the facts based on reporting of beneficiaries and stakeholders.*
- *Our report, by its very nature, may involve numerous assumptions, inherent risks, and uncertainties, both general and specific. The conclusions drawn shall be based on the information available with us at the time of preparing the report.*
- *We shall not perform an audit and shall not express an opinion or any other form of assurance. Further, comments in our report are not and shall not be intended, nor should they be interpreted to be legal advice or opinion. Client shall be fully and solely responsible for applying independent judgment, with respect to the findings included in the report, to make appropriate decisions in relation to future course of action, if any. We shall not take responsibility for the consequences resulting from decisions based on information included in the report.*
- *While information obtained from the public domain or external sources has not been verified for authenticity, accuracy, or completeness, we have obtained information, as far as possible, from sources generally considered to be reliable. However, it must be noted that some of these websites/third party sources may not be updated regularly. We assume no responsibility for the reliability and credibility of such information.*
- *Our work shall be limited to the specific procedures described in this Engagement Letter and shall be based only on the information and analysis of the data obtained through interviews of beneficiaries supported under the programme, selected as sample respondents and discussions with APL team and stakeholders of the programme. Accordingly, changes in circumstances or information available after the review could affect the findings outlined in our report.*
- *In no circumstances shall we be liable, for any loss or damage, of whatsoever nature, arising from information material to our work being withheld or concealed from us or misrepresented to us by any person to whom we make information requests.*
- *In accordance with its policy, KPMG advises that neither it nor any of its partner, director or employee undertakes any responsibility arising in any way whatsoever, to any person other than Client in respect of the matters dealt with in this report, including any errors or omissions therein, arising through negligence or otherwise, howsoever caused.*
- *In connection with our report or any part thereof, KPMG does not owe duty of care (whether in contract or in tort or under statute or otherwise) to any person or party to whom the report is circulated to and KPMG shall not be liable to any party who uses or relies on this report. KPMG thus disclaims all responsibility or liability for any costs, damages, losses, liabilities, expenses incurred by such third party arising out of or in connection with the report or any part thereof.*
- *By reading our report, the reader of the report shall be deemed to have accepted the terms mentioned herein above.*

List of Abbreviations

APL	Asian Paints Limited	mS/cm	Milli Siemens per centimeters
ATMA	Agricultural Technology Management Agency	MSP	Minimum Support Price
BCM	Billion Cubic Meters	NITI	National Institution for Transforming India
BIS	Bureau of Indian Standards	NMAET	National Mission on Agricultural Extension and Technology
BOD	Biochemical Oxygen Demand	NPV	Net Present Value
CGWB	Central Ground Water Board	O&M	Operation and Maintenance
CGWB	Central Ground Water Board	OC	Organic Carbon
CPCB	Central Pollution Control Board	OECD-DAC	Organisation for Economic Co-operation and Development-Development Assistance Committee
CSR	Corporate Social Responsibility	OOPE	Out-of-Pocket Expenditure
CWC	Central Water Commission	pH	Potential of Hydrogen
dS/m	Deci Siemens per Meter	ppm	Parts Per Million
EC	Electrical Conductivity	PRI	Panchayati Raj Institution
FGD	Focus Group Discussion	qtl	quintal
FIG/FI	Farmer Interest Group	RFP	Request for Proposal
FPO	Farmer Producer Organization	ROI	Return on Investment
ft	Feet	SAR	Sodium Adsorption Ratio
HH	Household	SDG	Sustainable Development Goal
INR	Indian Rupees	SEZ	Special Economic Zone
IS	Indian Standards	SHG	Self-Help Group
kg/ha	Kilogram per Hectare	SRI	System of Rice Intensification
kg/ha	Kilograms per hectare	SRoI	Social Return on Investment
KII	Key Informant Interview	TDS	Total Dissolved Solids
KPI	Key Performance Indicator	TOC	Theory of Change
LPCD	Litres Per Capita Per Day	tons/acre	Tons per acre
me/L	Milliequivalents per litre	VI	Village Institution
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act	WASH	Water, Sanitation and Hygiene
MIDC	Maharashtra Industrial Development Corporation	WHS	Water Harvesting Structure
MPCE	Monthly Per Capita Expenditure	WUA	Water User Association

Contents

1.	Executive Summary	4
2.	Introduction	8
2.1.	Background.....	8
2.2.	Asian Paint Limited	9
2.3.	About The Study	9
2.4.	About The Project	10
2.5.	About Implementing Partner.....	11
2.6.	1.6 Project Geography	12
3.	Approach And Methodology	14
3.1.	Our Approach.....	14
3.2.	OECD-DAC	14
3.3.	Social Return On Investment (SROI).....	17
4.	Analysis And Findings	26
4.1.	Demographic Of Respondents	26
4.2.	Support For Water Harvesting Structures	28
4.3.	Impact On Availability And Accessibility Of Water	29
4.4.	Improved Water Level.....	31
4.5.	Impact On Agricultural Land.....	32
4.6.	Impact On Silt Application	33
4.7.	Impact On Crop Productivity	33
4.8.	Impact On Agricultural Income.....	34
4.9.	Impact On Asset Creation	35
4.10.	Impact On Environment	35
4.11.	Case Study	35
4.12.	Water And Soil Test Results	36
5.	Measuring The Social Return	40
5.1.	Evidencing Outcomes.....	40
5.2.	Establishing Impacts	41
5.3.	Calculating Impact	41
5.4.	SROI Results.....	43
6.	Way Forward	46
7.	Annexures	47

01

Executive Summary

1. Executive summary

The Namma Jala Bhadarate Phase 3 initiative in Mysuru represents Asian Paints Limited's commitment to strengthening water security through scientifically designed, community-driven rejuvenation of traditional water bodies. Situated in a region increasingly vulnerable to groundwater depletion, erratic rainfall, and agricultural stress, the project addresses the critical need for reliable water access for farming households whose livelihoods depend predominantly on agriculture. Through large-scale desilting, feeder-channel restoration, and improved water harvesting structures, the program aims to enhance groundwater recharge, expand irrigated areas, and stabilize agricultural productivity while promoting ecological regeneration across the intervention villages.

Asian Paints Limited has imbibed the philosophy of transformation in its DNA and has consistently reinvented the industry. Aligning with this approach, the company's CSR efforts are focused on achieving holistic and sustainable community development. There is a strong emphasis on fostering robust trust-based relationships with communities located in the vicinity of its plants and people in the unorganized sector. These inclusive development initiatives are concentrated on health and hygiene, water conservation, skill development, and disaster management.

To address the water-related challenges, Asian Paints Limited (APL), in partnership with the Center for Rural Education Development and Innovative Technologies of India (CREDIT-I), implemented the Namma Jala Bhadarate Phase 3 Project for FY 2023–24. The project was executed in select villages of Mysuru District of Karnataka. The project was designed to improve water security, enhance farm productivity, and strengthen community stewardship of natural resources.

KPMG conducted the impact assessment for interventions undertaken in FY 2023–24, drawing on the OECD-DAC evaluation criteria and the Social Return on Investment (SROI) framework to measure outcomes. A mixed-method approach was adopted, combining quantitative data analysis with qualitative insights to ensure a holistic evaluation. For this study, KPMG interacted in four villages in Mysuru, including direct beneficiaries and indirect beneficiaries, which includes farmers, community members, PRI members and staff of the implementing agency.

Key Output Numbers

10 lakh KL
Water potential
created

1,300
Beneficiaries covered

Key highlights from the impact assessment study



Increase in water level in wells/borewells

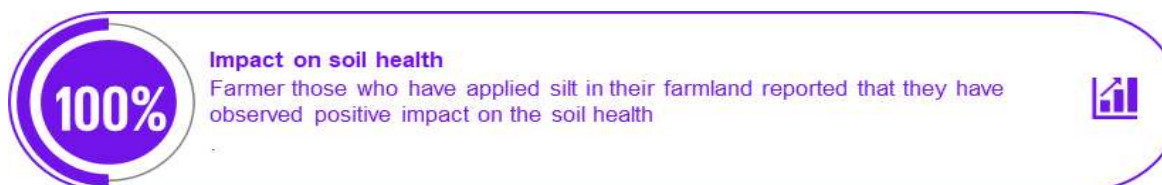
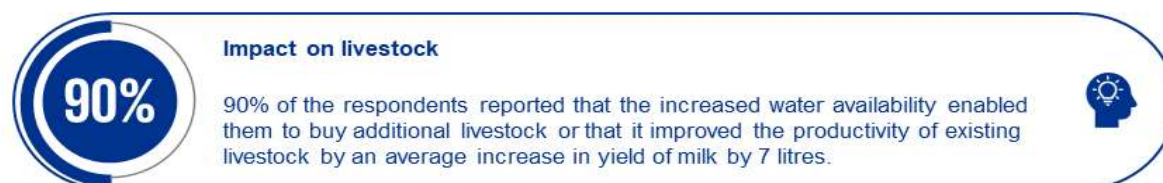
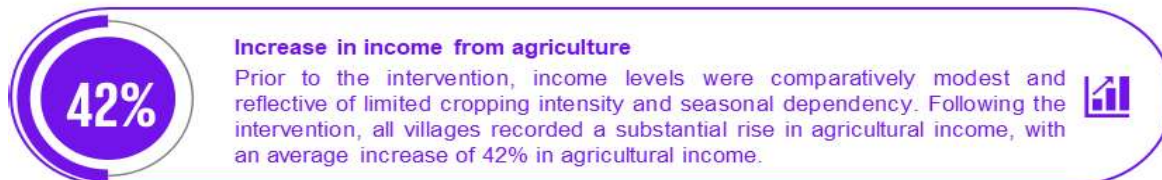
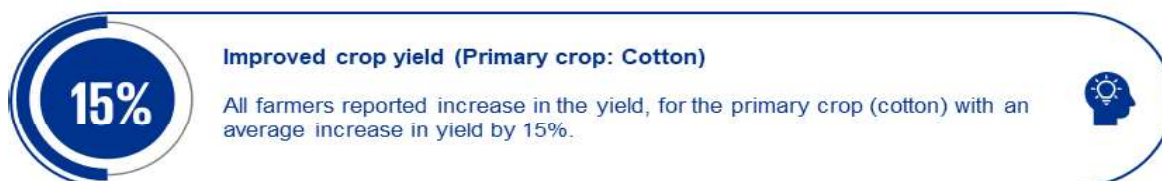
84% of the respondents reported an increase in groundwater levels, with winter water depth improving from 351 ft to 273 ft, summer levels improving from 535 ft to 335 ft, and monsoon levels declining from 145 ft to 60 ft.



Improved water availability for irrigation purpose post-monsoon

The availability of water has extended for 1 to 2 months for 71% of households, 2 to 3 months for 24% of households, while the remaining 5% reported availability for 3 to 4 months, indicating enhanced water retention and sustained irrigation support beyond the monsoon season.





Findings basis IRECS framework

I- Impact

The rejuvenated waterbodies retained surface water for a longer period. Households have improved access to water post-intervention, and groundwater levels have strengthened due to better recharge. Villages saw a marked rise in agricultural productivity. These improvements have encouraged multi-season cropping.

R- Relevance

- 100% of respondents primarily depended on agriculture for livelihoods and faced monsoon-driven uncertainties.
- The rejuvenated lakes and pond addressed the community's long-standing need for reliable water access by improving surface water storage and groundwater recharge.

E- Efficiency

- Project completed within set timelines

C-Coherence

- Project Alignment with National Priorities-
- Directly converges with Jal Shakti Abhiyan and 'Catch the Rain' campaign of Ministry of Jal Shakti.
- Project aligns with the SDG 6, SDG 1, SDG 2, SDG 15

S-Sustainability

- 100% of respondents shared that this project has brought a positive change in their life
- 72% of farmers were members of Water User Associations (WUAs), though active governance remains limited. Maintenance is currently panchayat-led. Continued capacity building is essential.

SROI – Results

1

Total CSR Investment

INR 3,63,47,657

2

SROI Ratio

2.73

3

Sensitivity range

₹2.57 – ₹3.12 per ₹1

Social Return on Investment (SROI) is a comprehensive framework used to measure the broader social, environmental, and economic value created by a development intervention. Unlike traditional cost-benefit analyses that focus primarily on financial returns, SROI assigns monetary values to outcomes that matter to stakeholders such as improvements in water availability, increased agricultural productivity, reduced drudgery, and enhanced ecological health. By following a structured approach that includes identifying stakeholders, mapping outcomes, valuing benefits, and accounting for factors such as attribution, deadweight, and drop-off, SROI helps organizations quantify the real change their investments generate.

In the case of the Namma Jala Bhadarate-Phase 3 initiative, the SROI methodology captures the significant improvement in water security, agricultural output, and household income resulting from rejuvenated water bodies and strengthened irrigation systems. The analysis shows that increased groundwater recharge, enhanced soil health, expansion of irrigated land, and higher crop yields together produced substantial socio-economic gains for communities. These benefits extend beyond immediate economic value improvements in ecological balance, increased green cover, and enhanced biodiversity also contribute to long-term resilience and sustainability.

Overall, the project demonstrates strong social value creation, with an SROI ratio of 2.73, meaning that every ₹1 invested by Asian Paints generated ₹2.73 in social impact. Even under conservative assumptions, the sensitivity analysis shows a return ranging between ₹2.57 and ₹3.12 per rupee invested, reinforcing the project's effectiveness and long-term value. SROI thus provides a powerful evidence-based tool for decision-makers to understand impact, allocate resources strategically, and scale interventions that deliver meaningful, sustained benefits for communities and ecosystems.

Way forward

Building on the strong outcomes achieved through the Namma Jala Bhadarate Phase 3 initiative, the next phase of action should focus on strengthening community institutions, deepening participation, and enhancing long-term sustainability of water resources. A key priority is to improve the functioning and ownership of Water User Associations (WUAs), which currently show low engagement and limited clarity on responsibilities. Strengthening these groups through continuous capacity-building, introducing village-level water budgeting, and enabling participatory crop planning will ensure that communities play an active and informed role in managing water assets.

Another critical area is gender inclusion. Field observations indicate that women's participation in decision-making processes remains limited, despite their central role in household water management and agriculture. Introducing women-focused training programmes, leadership workshops, and deliberate gender-mainstreaming efforts can improve representation and contribute to more equitable and sustainable water governance. Additionally, the project should continue adopting scientific approaches to water management- such as improved hydro-geological assessments, identifying control wells for better monitoring, and optimising storage mechanisms for high-elevation households through technologies like solar-powered pumps.

Lastly, the positive feedback from Panchayati Raj Institutions (PRIs) and the demonstrated benefits of the interventions present an opportunity to scale the model across neighbouring geographies. Strengthening convergence with district administrations and government schemes can enable co-financing and accelerate expansion of watershed activities. By combining community ownership, gender inclusion, technical rigour, and institutional convergence, the programme can evolve into a replicable and resilient model for rural water security in Mysuru and beyond.

2. INTRODUCTION

This chapter consists of an overview of the water stress in Indian context and Asian Paints Ltd.'s CSR efforts to address the issue. It provides an overview of the project, implementing partners, project geographies, scope, and purpose of the study.

2.1. Background

Water security has reached a critical inflection point in India because of rapid development, population pressure and climate volatility. As of 2025, India sustains approximately 18% of the global population with only 4% of the world's freshwater resources.¹ The NITI Aayog Annual Report (2024-25) warned that the country's average per capita water availability is projected to decline to 1,341 cubic meters by late 2025, pushing the nation further into the "water-stressed" category (threshold < 1,700 m³) and nearing the "water-scarcity" limit of 1,000 m³.² With abundant flow in Ganga and Brahmaputra basins and much lower availability in west and south-western basins, regional disparities exist that make proper management of local demand essential.

India's water budget remains heavily dependent on a fluctuating monsoon and there are both quantity and quality concerns with groundwater. According to the Dynamic Ground Water Resource Assessment (2024) published by Central Ground Water Board (CGWB), the total annual groundwater recharge is estimated at 446.90 Billion Cubic Meters (BCM), with an annual extractable resource of 406.19 BCM. While the average extraction rate is 60.47%, regional disparities are severe. Out of a total of 6,746 assessment units, approximately 11.1% of assessment units, primarily in Punjab, Haryana, Rajasthan, and Delhi, are classified as "over-exploited", where extraction exceeds natural replenishment.³ On groundwater quality, CGWB's Annual Ground Water Quality Report 2024 highlights localized exceedances of nitrate, fluoride, and arsenic in shallow aquifers across different states, varying seasonally with recharge and agricultural inputs.⁴ The report mentions Triple Contamination Challenge in India's groundwater, referring to the three most widespread contamination threats, each stemming from different sources- nitrate (anthropogenic), fluoride (geogenic) and salinity/electrical conductivity (EC).

Surface water pollution is another important concern. Around 70% of India's surface water is contaminated, ranking the country 120th out of 122 on the global Water Quality Index. Central Pollution Control Board's latest report titled "Polluted River Stretches for Restoration of Water Quality" identifies 150 polluted stretches nationally, including 35 Priority-1 segments where Biochemical Oxygen Demand (BOD) is greater than 30 mg/L. Wastewater from various sources, intensive agriculture, industrial activities, and untreated urban runoff contribute to this pollution, compromising the health of both humans and aquatic ecosystems.

Climate change has added to the risk of water stress. In 2024-25, India experienced a 55% increase in record heatwaves, accelerating evapotranspiration and increasing the demand for irrigation which consumes over 80% of freshwater in rural areas.⁵ Because of climate change, the monsoon pattern has become erratic, characterised by long dry spells followed by intense cloudbursts. When this happens, the natural soil infiltration is affected which results in flash floods and reduced aquifer recharge.

¹ United Nations World Water Development Report 2024, sourced at <https://unesdoc.unesco.org/ark:/48223/pf0000388948>

² NITI Aayog Annual Report 2024-25 [NITI AAYOG, India | Annual Report 2024-25](#)

³ Press Release: [Press Information Bureau](#)

⁴ CGWB Annual Ground Water Quality Report 2025 [CGWB - Publications Repository](#)

⁵ [India's Water Crisis: Why Climate-Resilient Governance is Urgent](#)

In this challenging water landscape, the importance of watershed management becomes apparent. Watershed management is not merely a focus on water projects but involves a holistic approach to land-use practices, afforestation, and soil and water conservation. Watershed approaches work at the hydrological unit where supply, demand and quality intersect. Steps like planting trees and protecting stream banks, building small check-dams and farm ponds, contouring fields to slow water, using drip/sprinkler irrigation and involving local communities in simple monitoring make more rain soak into the ground, reduce silt in reservoirs, steady flows in the dry season and improve drinking-water availability. Such a holistic approach that addresses not only water scarcity but also soil conservation and natural resource management is crucial for ensuring a sustainable and resilient water future for the country.

2.2. 1.2 Asian Paint Limited

Asian Paints, headquartered in Mumbai, is one of the largest paint companies in India. Started in 1942, the company currently operates in 14 countries with products sold in over 60 markets. Asian Paints operates in various segments, including decorative paints, industrial and automotive coatings, and home décor products like furniture, lighting, and wallpapers. APL focuses heavily on research and development, which helps it keep introducing new and improved products. The company has also launched eco-friendly and sustainable paints, in line with the growing global preference for environmentally responsible solutions.

Asian Paints goes beyond its core business by actively contributing to social and environmental well-being through its Corporate Social Responsibility (CSR) initiatives. Guided by its values of trust, fairness, and care, the company focuses on creating long-term impact in communities around its operations. Its programmes address key areas such as water conservation, healthcare and skill development, leveraging its expertise to deliver meaningful change. The objective is to empower marginalised communities and improve quality of life by tackling critical social, economic, and environmental challenges. These efforts are closely aligned with the United Nations Sustainable Development Goals (SDGs), particularly, Goal 1 (No Poverty), Goal 2 (Zero Hunger), Goal 3 (Good Health and Well-being), Goal 6 (Clean Water and Sanitation), Goal 8 (Decent work and economic growth), Goal 11 (Sustainable cities and communities) and Goal 17 (Partnership for the goals).

Asian Paints runs several initiatives in water conservation, health and hygiene, skill development, and disaster relief. Its flagship Water Stewardship Program called the Watermark program, focuses on improving water availability and security in communities around its plants. The program combines supply-side measures like pond cleaning, desilting, check-dam construction and renovation, canal lining, and integrated watershed management with demand-side interventions such as micro-irrigation, System of Rice Intensification (SRI), and sustainable farming practices. These efforts aim to restore water bodies, reduce soil erosion, and recharge groundwater, while promoting efficient water use in agriculture. By adopting a holistic approach that includes soil health and pest management, Asian Paints helps strengthen ecosystem services and improve livelihoods.

2.3. About the Study

To understand the impact created by its interventions implemented in FY 2023-24, Asian Paints Ltd. engaged KPMG to facilitate the impact assessment of its Participatory Water Resource Management project. The objective of this study was to assess the impact of these water stewardship activities on the beneficiaries and stakeholders covered under the projects. The study aimed to understand the immediate, medium, and longer-term impact of the interventions on the targeted beneficiaries:

The duration considered for this study is financial year 2023-24.

Impact on Access & Availability of Surface & Ground Water	• To understand the impact on ground-water recharge based on well recharge data • To understand the duration of water availability post-monsoon (in months) • To understand the impact of water accessibility, availability & livelihood of the farmers
Impact on Potable Water	• To assess the impact on drinking water availability and quality due to rainwater water harvesting structures. • To assess impact on other areas like drudgery reduction, drop in health issues around the drinking water etc.
Impact on Agricultural Land & Practices	• To assess impact on season wise cropping pattern led by the availability of water in the area. • To assess impact on soil health due to balance use of fertilizer because of adoption of recommendations of soil testing report and application of organic fertilizers • To assess impact on knowledge level of the farmers about improved agricultural practices.
Impact on Farmer's Livelihood	• To assess impact of water availability on crop production (yield/acre) • To assess impact of water availability on productivity of livestock animals • To assess impact on net return/acre per farmer. • To assess the impact on livelihood opportunities created through the programme.
Other Impact Areas Apart from Water Rejuvenation & Canal Lining	• To assess knowledge and adoption level of water efficient agricultural and risk mitigation farm practices. • To assess level of ownership by the community in the asset created: Whether community-based institutions had been formed and taking care of maintenance aspects of the assets created under the project.

2.4. 1.4 About the project

Asian Paints' Water Stewardship Programs signifies the company's dedication to sustainable practices and responsible corporate citizenship. By addressing the challenge of water scarcity through community

partnerships and integrated initiatives, Asian Paints aims to make a positive impact on both its operations and the communities it serves.

The Namma Jala Bhadarate-Phase 3 initiative in Mysuru, led by Asian Paints Limited in collaboration with CREDIT-I, focuses on large-scale rejuvenation of traditional water bodies to strengthen water security and support sustainable agriculture. The project involved extensive desilting of tanks, restoration of feeder channels, and bund reinforcement to improve water retention and enhance irrigation infrastructure. By engaging local communities and leveraging government schemes for complementary works, the program promoted participatory water management and ensured long-term ecological benefits. This project aimed to reduce water scarcity, improve soil health, and create a resilient framework for rural development through integrated resource management.

The objectives of the project are:

- Rejuvenation of water bodies by desilting of identified tanks
- Collaborate with local administration in the rejuvenation of bunds of the feeder channel

2.5. About implementing partner

CREDIT-I (Center for Rural Education Development and Innovative Technologies of India), founded in 2007 in Mysore and registered under the Indian Trust Act of 1882, is a non-profit organization committed to empowering women and youth across Karnataka. With a reach of over 125,000 beneficiaries statewide, it delivers tailored capacity-building programs targeting educational, social, and economic uplift. CREDIT-I's comprehensive initiative portfolio includes watershed development, rejuvenation of water bodies, formation of women-led self-help groups, educational and health sponsorships, career and business counseling, and urban homeless shelters. Notably, through its environmental efforts, supported by Asian Paints and IIT, it has rejuvenated 56 tanks in Mysore district, increasing their combined water storage capacity by approximately 80 crore liters.

In partnership with Asian Paints Limited (APL), CREDIT-I implements CSR projects focused on water resource management in Mysore district. Under this collaborative model, CREDIT-I leads the execution of activities, such as tank desilting, watershed infrastructure enhancement, and community mobilization, ensuring projects are completed on schedule, within budget, and meet outcomes. APL contributes crucial technical and financial support to enable the development and implementation of a durable, inclusive framework that advances water conservation and promotes livelihood security among marginalized rural populations.

2.6. Project Geography



Mysuru District is located in the southern part of Karnataka, forming one of the key administrative districts of the Mysore Division. It is bounded by Hassan (North), Mandya (East), Chamarajanagar (South-East), Kodagu (West), and Wayanad district of Kerala (South). The district spans an area of 6,854 sq. km, comprising a mix of forested regions, river valleys, and agricultural plains. The district lies on the southern portion of the Deccan Plateau, with an undulating terrain ranging from 660 m to 788 m elevation.

The western and southern zones include forested landscapes adjoining Nagarhole and the foothills of the Western Ghats, whereas central and eastern regions comprise fertile plains suitable for agriculture.

Hydrologically, Mysuru forms part of the Cauvery River Basin, with major river systems including the Cauvery, Kabini, and Lakshmanathirtha rivers, which play a crucial role in irrigation, drinking water supply, and ecological sustenance. Canal-based irrigation is a prominent feature, supported by major reservoirs such as Krishna Raja Sagara (KRS) and Kabini.

The climate is moderate to sub-tropical, with rainfall influenced by both the South-West and North-East monsoons. Compared to the high-rainfall belts of the Western Ghats, Mysuru experiences relatively balanced rainfall, supporting both horticultural and field crops. Forest cover is significant, making Mysuru the second-richest district in forest wealth after Uttara Kannada.

Soil types across the district vary from red loamy soils, clay loam, to black cotton soils, particularly in the fertile river valleys. These physical conditions support a diverse cropping system of paddy, sugarcane, millets, pulses, and extensive horticultural cultivation, including vegetables, banana, coconut, and floriculture. The district also has strong traditional industries, including sericulture, silk weaving, wood and metal crafts, and food-processing units.

Administratively, Mysuru comprises seven talukas: Mysuru, Tirumakudalu Narasipura, Nanjangud, Heggadadevanakote, Hunsur, Piriapatna, and Krishnarajanagara, each exhibiting a mix of agricultural, forest, and peri-urban landscapes.

02

Approach & Methodology

3. APPROACH AND METHODOLOGY

The chapter provides details on the research design and methodology adopted for the impact assessment. It includes description of the key activities, data collection methods, and sampling strategies, employed to ensure the reliability and validity of the findings.

3.1. Our Approach

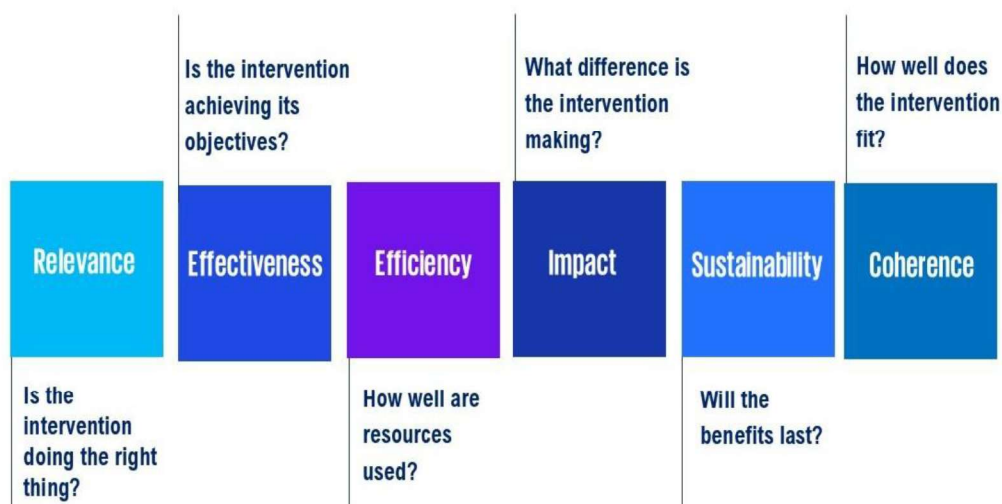
The study applied the OECD DAC and SROI frameworks to design the evaluation and measure the social returns and impacts generated by APL's CSR projects on water stewardship. The OECD DAC framework is a globally recognized approach for assessing the effectiveness of social development programs, while the SROI methodology goes beyond traditional economic metrics to capture broader social and environmental value.

A structured four-phase methodology was adopted to ensure a comprehensive evaluation. This approach integrated the principles of both OECD DAC and SROI throughout the process, enabling a robust assessment of outcomes and the overall impact of the program.

Phase I: Consulting and Scoping	Phase II: Research Design	Phase III: Data Collection	Phase IV: Analysis and Reporting
Kick-off meeting	Development of Impact Map	Development of field visit plan	Analysis of collected data using OECD DAC framework and estimating the SROI of the projects
Desk review of documents and reports related to the program	Mapping the stakeholders	Field visits and stakeholder interactions	Development of draft and final report
Determining the scope of the study	Designing sampling strategy and data collection tools		Presentation to APL Team

3.2. OECD-DAC

The Organization for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) introduced its evaluation criteria in 1991 as a structured framework for assessing development programs, whether ongoing or completed. This approach enables a systematic review of multiple dimensions of a program, offering both qualitative insights and quantitative measures of impact. The framework is widely recognized for its ability to evaluate effectiveness and relevance in social development initiatives. It is built around the following six key criteria, which form the basis for comprehensive program assessment under the OECD-DAC guidelines:



These evaluation criteria have been defined below along with illustrative questions:

Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
Relevance	A measure of the extent to which the intervention objectives and design respond to beneficiaries, global, country, and partner/institution needs, policies, and priorities, and continue to do so if circumstances change. ▪ To what extent are the objectives of the project still valid? ▪ Are the activities and outputs of the project consistent with the overall goal? ▪ Are the activities and outputs of the project consistent with the intended impacts and effects?	<i>Commitments of the stakeholders are integrated into Project design and planning</i>
Effectiveness	A measure of the extent to which the intervention achieved, or is expected to achieve, its objectives, and its results, including any differential results across groups.	<i>Achieved cross-cutting objectives during project implementation</i>

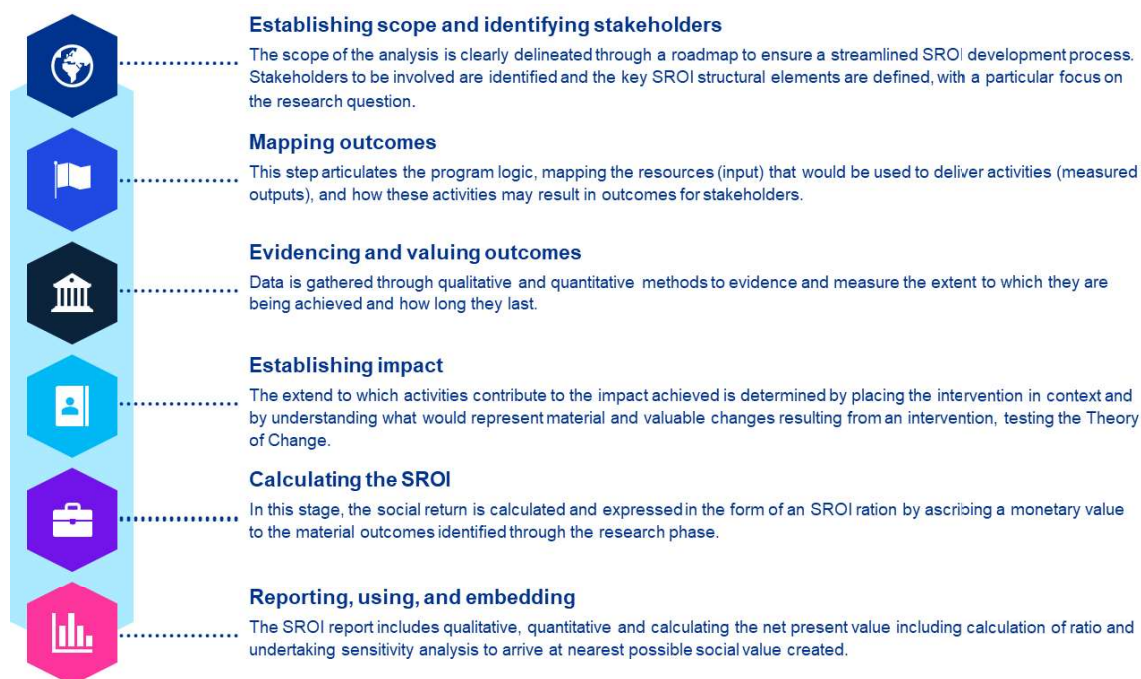
Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
	- To what extent were the objectives achieved / are likely to be achieved? - What were the major factors influencing the achievement or non-achievement of the objectives?	
Efficiency	A measure of the extent to which the intervention delivers, or is likely to deliver, results in an economic and timely way. - Were activities cost-efficient? - Were objectives achieved on time? - Was the project implemented in the most efficient way compared to alternatives?	<i>Resources are provided and efficiently used for participation of all stakeholders</i>
Impact	A measure of the extent to which the intervention has generated or is expected to generate significant positive or negative, intended, or unintended, higher-level effects. - What has happened as a result of the project? - What real difference has the activity made to the beneficiaries? How many people have been affected?	<i>Achieved real and long-lasting positive changes in the lives of intended beneficiaries</i>
Sustainability	A measure of the extent to which the net benefits of the intervention continue or are likely to continue. - To what extent did the benefits of a project continue after donor funding ceased? - What were the major factors which influenced the achievement or non-achievement of sustainability of the project?	<i>Likelihood that project achievements will continue after project</i>

Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
	What can be some of the innovative ways to make the project sustainable in the long run?	
Coherence	A measure of the extent to which the intervention is compatible with other interventions in a country, sector, or institution. - Does the project address the synergies and interlinkages between the intervention and other interventions in the same organisation and in the same sector/policy landscape? Does it weaken or enhance the impact of any current programs or policies? - Does the program lead to duplication of efforts?	<i>The extent to which other interventions (particularly policies) support or undermine the intervention and vice versa.</i>

3.3. Social Return on Investment (SROI)

Social Return on Investment (SROI) is a structured approach designed to capture and measure the broader value created by an investment. It covers the social, environmental, and economic benefits that traditional cost-benefit analyses often overlook. This methodology assigns monetary values to social and environmental outcomes, enabling organisations to calculate how much value is generated for every rupee spent on a program. Unlike conventional assessments, SROI focuses on changes that matter most to stakeholders, providing a clear picture of the social impact of projects and policies.

By using SROI, organisations can demonstrate the social value their initiatives deliver, gain deeper insights into stakeholder impact, and integrate these findings into strategic decision-making. It is fundamentally about value rather than just financial returns and can be applied to an entire organisation or a specific program. The approach uses a theory of change or impact map to outline how interventions lead to measurable outcomes, expressed in monetary terms, allowing for a benefit-to-cost ratio calculation. SROI combines qualitative, quantitative, and financial data, along with case studies, to inform future planning. Its key advantage lies in going beyond identifying outcomes to valuing them and calculating their social worth. Steps of a SROI are as follows:



Setting the Scope 	Identification of stakeholders including beneficiary group, finalising the scope- setting the boundary of what is going to be considered for evaluative SROI - stakeholders including beneficiaries, impacts, program period, etc.
Mapping Outcomes 	Creating impact map, identifying investments, and valuing inputs, identifying outcome sand indicators for monitoring / evidencing outcomes
Evidencing Outcomes 	Collecting and analysing outcome data and establishing how long the outcome will last
Establishing Impacts 	Identifying and valuing financial proxies, adjusting outcomes using deadweight, displacement, attribution and drop off, calculating the impact
Calculating SROI 	Programming the value of outcome into future based on the duration for which the impact will last, calculating the net present value including calculation of ratio and undertaking sensitivity analysis.

The process of calculation of SROI largely focuses on deadweight, displacement, attribution, and drop-off in association with any outcomes achieved. All these aspects are generally expressed as percentages and these percentages are applied to the financial proxy of each outcome to arrive at the total impact for the outcome. Therefore, we used a customised framework involving a combination of OECD-DAC and SROI to obtain a full picture of the impact created by APL.

Detailed Methodology

The following section discusses the methodology being employed by KPMG in this impact assessment, which has been broken down into four phases.

PHASE I: CONSULTING AND SCOPING

Activity 1: Inception Meeting

The initial step involved a scoping and kick-off meeting between the KPMG team and APL to finalize the work plan. The key tasks, timelines, and approach for the engagement were discussed. A detailed project plan was prepared by KPMG to guide the execution.

Activity 2: Desk Review and Stakeholder Engagement

The team conducted a thorough review of documents provided by APL, including concept notes, annual reports, and progress or closure reports. Secondary research was also conducted to gain an in-depth understanding of the project locations and interventions. Additionally, discussions with APL and implementing partners helped clarify KPIs, map external stakeholders, and define the sampling strategy and size.

PHASE II: RESEARCH DESIGN

Activity 1: Developing the Impact Map / Theory of Change

An impact map based on the theory of change was created to define the project's outcome and impact parameters. This map serves as a logical framework that illustrates how inputs (actions or activities undertaken) lead to outputs (immediate changes resulting from interventions), which then drive outcomes (short- or medium-term effects linked to those outputs) and ultimately generate impact (positive or negative, intended or unintended, direct or indirect) arising from the interventions.

Refer next page for impact map

Activity 2: Stakeholder Mapping and Sampling strategy

Stakeholder mapping is the process of identifying all the stakeholders involved in a project and their roles and responsibilities on one map. The main benefit of a stakeholder map is to get a visual representation of all the people who can influence the project and how they are connected. Stakeholders who experience change, whether positive or negative because of the interventions carried out were considered for the study. Furthermore, their pertinence to the scope of the study and relevance to the overall analysis were assessed.

Stakeholder	Project Objectives	Inputs	Output	Outcome	Evidence Indicator
Farmers, Community members FPO/VI/WUA	To promote basic supplementary irrigation facilities by creating and strengthening water harvesting structures and increase water storage and availability	Construction and refurbishment of check dams, ponds and other Water Harvesting Structure, Capacity building, Access to Finance, Time	Number of families reached out / availed benefits of check dams and other water harvesting structures	Increase in agricultural production	Changes in availability of cultivated land Changes in cropping pattern by farmers Changes in multi-seasonal cropping
	To improve and stabilize surface soil to convert unirrigated land to irrigated land.			Access to secure livelihood	Changes in the input cost required for agriculture
				Creation of sustainable water supply	Changes in the irrigation fed agriculture, changes in the availability of water, reduced dependency on the other sources of water
				Creation of employment opportunities	Changes in the labour employment by the local population
	To organize and strengthen the village institutions around water harvesting and related livelihoods		No. of families benefited from Group wells & Borewell	Access to potable water	Reduction in water borne diseases (Improvement in health), reduction of drudgery (time saved)
				Access to secure livelihood	Changes in the input cost required for agriculture, adoption of improved agriculture practices
			No. of village institutions benefited	Establishing community stewardship over the	Community led governance of its resources, effective

Stakeholder	Project Objectives	Inputs	Output	Outcome	Evidence Indicator
				common water resources	operations, and maintenance of water structures
			Increase in water storage capacity	Improved biodiversity in the catchment area	Increase in biomass in command area, Improved bio-diversity – presence of bird and animal species, Improved soil health, Reduced soil pollution.



Sampling of stakeholders for engagement was done based on the materiality of the stakeholder and the extent of the impact on the stakeholder. Considering the overall outreach of the project as nearly 1300 beneficiaries. The stakeholder-wise mode of interaction has been detailed out below:

Stakeholder type	Universe	Sample	Actual coverage
Farmers Benefitted due to water intervention	1300	100	100
PRI Members Members from benefitted villages	-		4

Stakeholder	Reason for Inclusion	Data collection tool
Farmers who have been benefitted due to water harvesting related interventions	Since the farmers are the direct beneficiaries of this study hence it is important to include them to understand if the objectives of this program have been met.	Structured Questionnaire: were developed In-depth Interview: were also undertaken
Farmers who have been benefitted due to agriculture related interventions	Agriculture is a key intervention, Hence, it is critical to get their perspective of the beneficiaries	Structured Questionnaire: were developed for farmers In-depth Interview: were also undertaken
Community members benefitted due to potable drinking water	The community members from the intervention area have been a key stakeholder and receiver of the impact hence, it is important to get their perspective.	Semi-structured Questionnaire: were developed for community members
WUA members	In order to understand the governance mechanism established over the water usage, these stakeholders are important	Structured Questionnaire: were developed In-depth Interview: were also undertaken
PRI Members and government officials	In order to understand broad perspective of the community members through elected members	Structured Questionnaire: were developed In-depth Interview: were also undertaken
Stakeholders excluded from the study		
Community members from periphery of intervention villages	Excluded - It was understood from the implementing team that due to no direct intervention, these stakeholders will remain outside the scope of the intervention	Not applicable

The study includes three categories of beneficiaries: primary, secondary, and tertiary. Farmers, as the direct and intended recipients of project interventions, constitute the primary beneficiaries. Their family members and other community stakeholders constitute the secondary beneficiaries. Additionally, interactions were conducted with institutional stakeholders such as Panchayati Raj Institution (PRI) representatives and government officials, who constitute the tertiary stakeholders.

Activity 3: Development of Data Collection Tools

The study adopted a mixed-methods approach, combining quantitative and qualitative techniques for data collection and analysis. Initially, a comprehensive desk review was conducted to assess existing knowledge and identify gaps for further investigation. Following the literature review and research design, survey instruments were created based on the impact map to gather both quantitative and qualitative data from a sample population using offline methods. These tools captured participants' experiences, attitudes, and behaviors. Additionally, semi-structured interviews were designed for key stakeholders, including experts, PRI members, government officials, community leaders, and practitioners, to gain deeper insights into the research topic and emerging best practices. All tools were aligned with program objectives and the scope outlined in the RFP, with additional questions incorporated to enrich the case study. The tools developed include:

- Tools for individual interactions
- Tools for focus group discussions
- Tools for other key stakeholder interactions
- Development of a research and data collection plan

PHASE III: DATA COLLECTION

Activity 1: Development of Field-Visit Plan

Stakeholder interactions were planned in coordination with APL and the project implementing partner. A detailed timeline was prepared for the field visits, with the implementing partner providing support for scheduling meetings, mobilizing stakeholders, and arranging translators where necessary. The team also consulted with the partner to anticipate potential challenges such as language barriers, cultural sensitivities, or safety concerns. These measures ensured that the data collection process was efficient and conducted in an ethical manner.

Activity 2: Conducting Field Visits

Stakeholder consultations were carried out through individual interviews, focus group discussions (FGDs), and key informant interviews (KII). To ensure effective communication, KPMG included facilitators with prior experience and proficiency in local language. The data collection team underwent training and sensitization sessions to engage stakeholders appropriately. Before the main exercise, tools were pre-tested. Throughout the process, data collection was closely monitored for completeness, accuracy and consistency, including backchecks and triangulation.

PHASE IV: ANALYSIS AND REPORTING

Activity 1: Data analysis and preliminary findings

During the data analysis, both qualitative and quantitative analysis were conducted on the data collected. To enhance accuracy and reliability, the findings from the quantitative data collected on the ground were triangulated to an extent. The collected information was thoroughly analysed on a location disaggregated basis, allowing for a detailed understanding of the specific areas involved. To calculate the social returns and impacts resulting from the program, the SROI framework and OECD-DAC framework were utilized. Additionally, a sensitivity analysis was conducted to examine the results of the ROI. The data and observations obtained during the primary data collection phase and document review were carefully analysed to inform report writing. The findings were further scrutinised basis the assurance standards for SROI assessments.

Activity 2: Development of Report and Presentation

A comprehensive report was prepared for Asian Paints Limited at the enterprise level, capturing key observations, analyses, findings, and recommendations from the assessment. The report adhered to OECD-DAC and SROI framework guidelines to ensure accuracy and relevance. A draft version was shared with APL for review and feedback prior to finalisation. The finalised report was then presented to APL's leadership. Additionally, separate project-level reports were developed, providing detailed data and analysis. All collected data and corresponding analyses were also shared with APL.

03

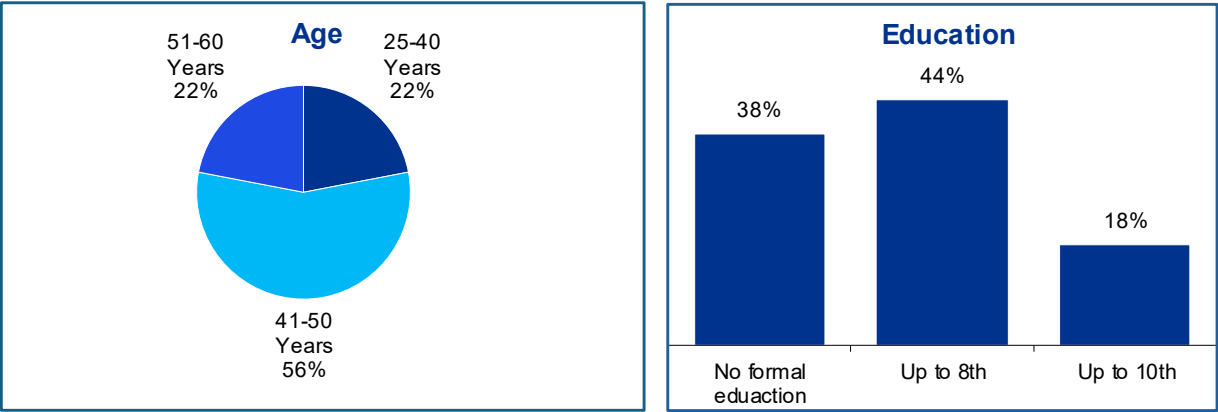
Analysis and Findings

4. Analysis and Findings

The section below highlights the findings and observations based on the interactions conducted with sampled beneficiaries of the Namma Jal Bhadrade program supported by Asian Paints Limited. across four villages of Bandammana kere, Lakkayanna kere, Mulluru and Siddayanahundi villages in Mysore district of Karnataka.

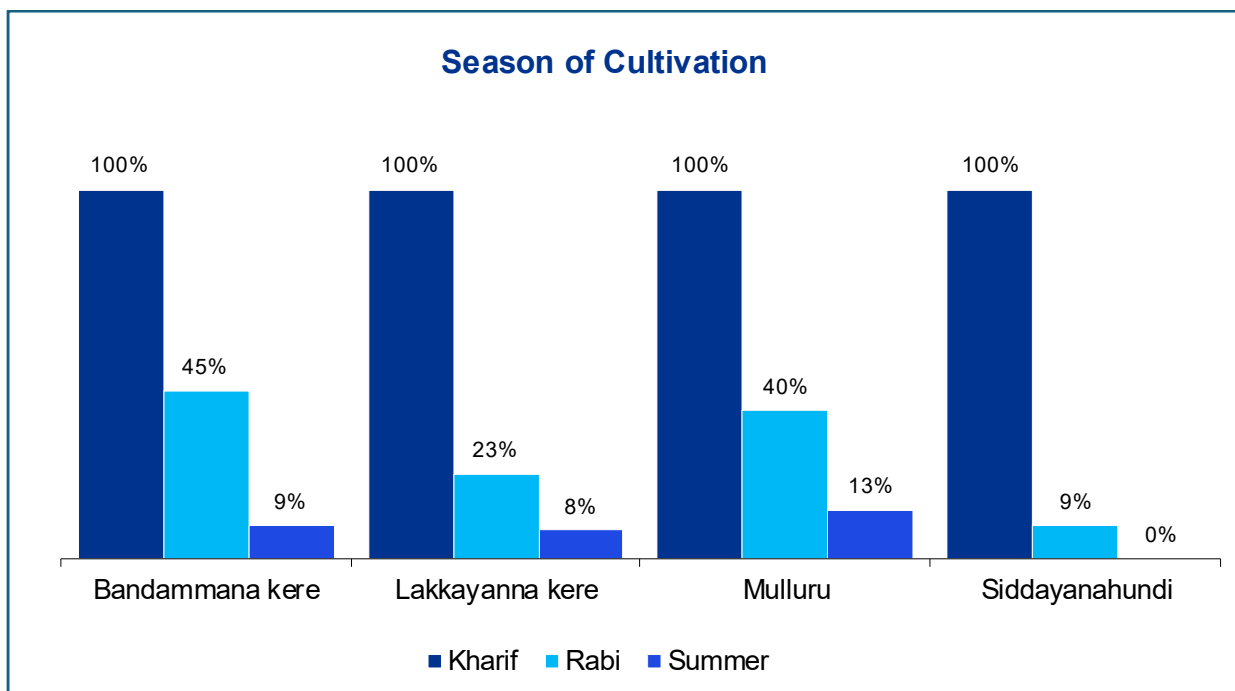
4.1. Demographic of respondents

Age-wise, the sample is strongly concentrated in the 41–50 years bracket (56%), with the 25–40 years and 51–60 years groups each accounting for 22%. Educational attainment is generally low, the largest share of respondents have studied up to 8th grade (44%), followed by those with no formal education (38%), while only 18% have studied up to 10th grade. The income profile of the beneficiary households highlights a strong dependence on agriculture, with all respondents identifying farming as their primary source of livelihood. This underscores the predominantly agrarian structure of the surveyed villages, where agriculture remains the central pillar of household earnings. Overall, the income pattern indicates a community that would benefit significantly from enhanced agricultural productivity, and improved resilience to climate- and market-related risks.



Season of Cultivation:

Source of Income	100% of respondents shared that their primary source of income is agriculture. Secondary sources of income include livestock, horticulture, salaried work and wage labor.	
HH Income	Annual HH income of majority of (54%) of respondents ranges between INR 1,00,000 to INR 2,00,000.	
Land Holding Size	54% of respondents reported land size ranging from 2 to 5 acres.	



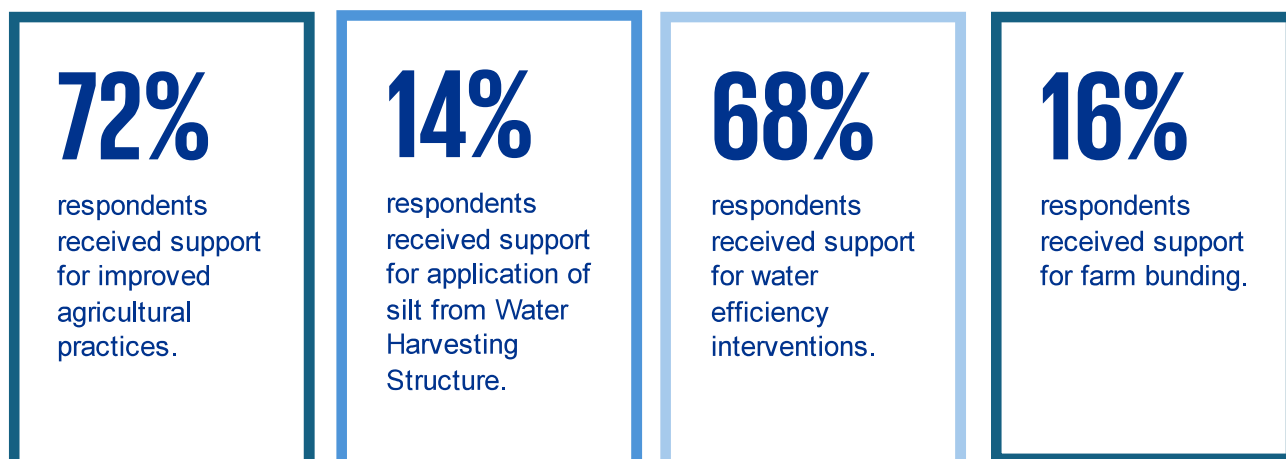
The cultivation pattern across the selected locations of Mysuru – Bandammana Kere, Lakkayanna Kere, Mulluru, and Siddayanahundi – shows a clear dominance of the Kharif season, with all four areas recording 100% cultivation during the monsoon period. This highlights the region’s strong dependence on rainfall for major Kharif crops. Rabi cultivation varies, with Bandammana Kere (45%) and Mulluru (40%) showing relatively higher activity. In contrast, Lakkayanna Kere (23%) and Siddayanahundi (9%) exhibit limited Rabi farming. Summer cultivation remains minimal across all locations, with percentages ranging from 0% to 13%, reflecting scarce water availability during the dry season. Overall, the data suggests that agriculture in these Mysuru areas is primarily rain-fed, with highly restricted crop production beyond the Kharif season.

About irrigation facility:

Village Name	Yes	No, only dependent on rains
Bandammana kere	91%	9%
Lakkayanna kere	100%	0%
Mulluru	100%	0%
Siddayanahundi	91%	9%

The table shows that most villages have reliable irrigation sources, with 91–100% of farmers reporting access to water beyond rainfall. Only small portions of Bandammana Kere and Siddayanahundi (9% each) remain fully dependent on rains. Overall, the region demonstrates strong irrigation coverage with minimal rain-dependent households.

Support received from project:



The analysis of the data indicates that a substantial majority of beneficiaries have received support through various agriculture-related interventions, reflecting the project's strong commitment to inclusive coverage. With 72% of respondents receiving support for improved agriculture practices, the project is promoting better farm management and productivity-enhancing techniques. Similarly, 68% of farmers received assistance in water-efficiency interventions, highlighting a clear focus on sustainable use of water resources. Support for structural interventions such as farm bunding (16%) and application of silt from Water Harvesting Structure (14%) further demonstrates the project's integrated approach to soil and water conservation.

About Accessibility of the project across all community groups:

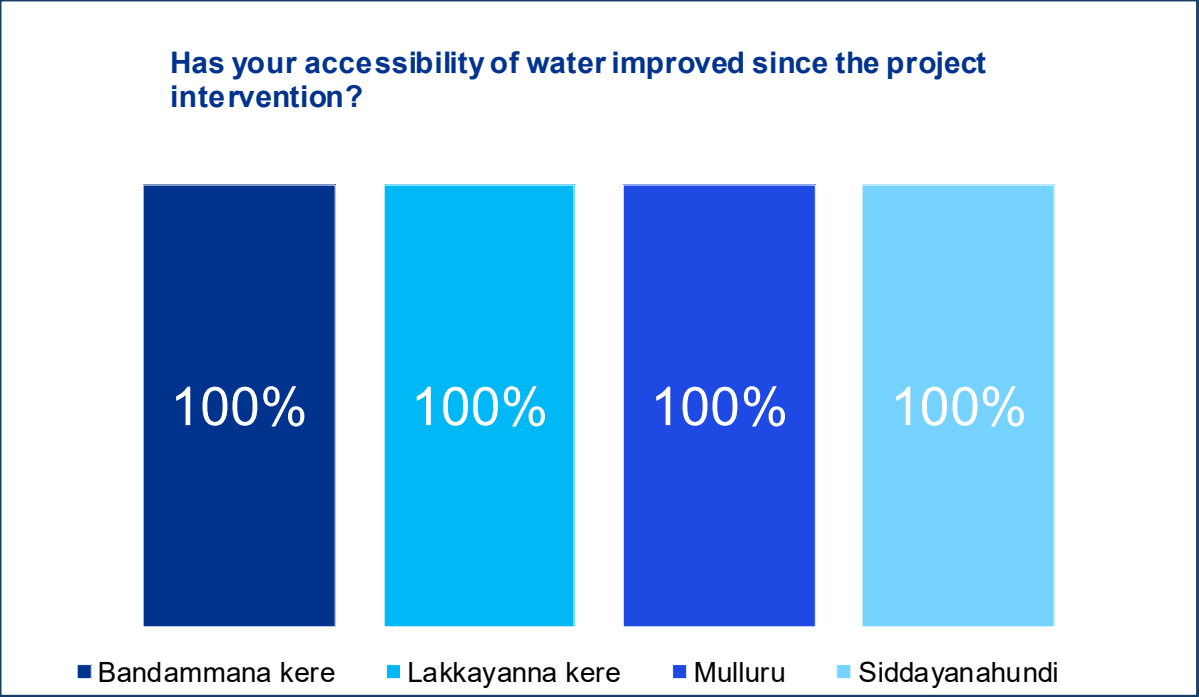


Analysis reflects the level of inclusivity in the project's activities. The KPIs, accessibility for all social groups, is a critical measure of the project's social inclusivity, and the data indicate that the project has performed well, with a 100% accessibility rate. This indicates that the project has taken the necessary measures to ensure that all social groups, regardless of caste, class, race, religion, or other factors, have equal access to the support interventions. This demonstrates the project's commitment to social equity and inclusion. By improving accessibility for all social groups, the project can ensure that the benefits of its activities are shared equitably, promoting sustainable development in the region.

4.2. Support for Water Harvesting Structures

As part of the impact evaluation, interactions were held with beneficiaries to understand their experiences and gather feedback on key interventions. All respondents affirmed that the water-related interventions had a positive impact on their livelihoods, reflecting a strong sense of satisfaction with the project's efforts in this domain. In addition to the positive outcomes, respondents shared that they were actively engaged throughout both the planning and implementation stages of the project. Their feedback

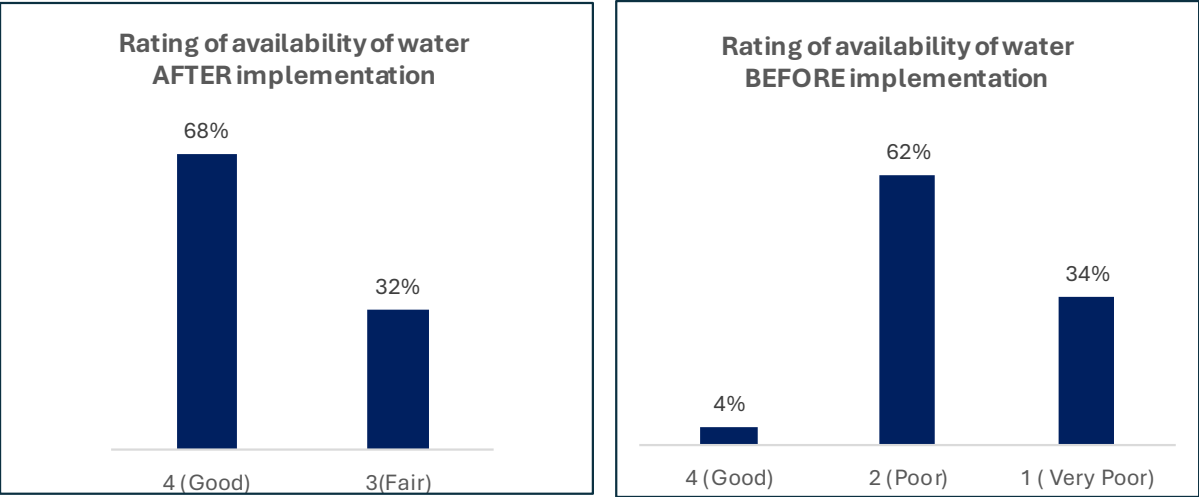
and suggestions were taken into consideration during decision-making, demonstrating the project's commitment to participatory and inclusive approaches.

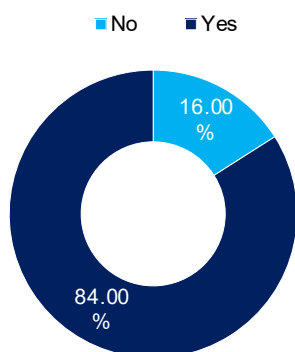


4.3. Impact on availability and accessibility of water

The availability of water has improved following the construction of water harvesting structures. This can be concluded from following graphs which illustrate the respondents' assessment of water availability before and after the project, rated on a scale from Very Good (5) to Very Poor (1).

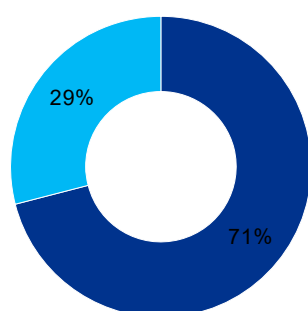
Prior to the intervention, water availability was rated poorly by most respondents: only 4% marked it as 'good', while 62% rated it as 'poor' and 34% as 'very poor', indicating significant challenges in access and reliability. Following the project's implementation, the situation improved significantly. A large proportion of respondents rated water availability as 'good', reflecting a positive shift in access to reliable water sources. Additionally, the remaining respondents rated the availability as 'fair', with no participants classifying it as 'poor' or 'very poor' after the project





84%

Respondents having well/borewell reported that intervention resulted in increased water availability in their well/borewell.



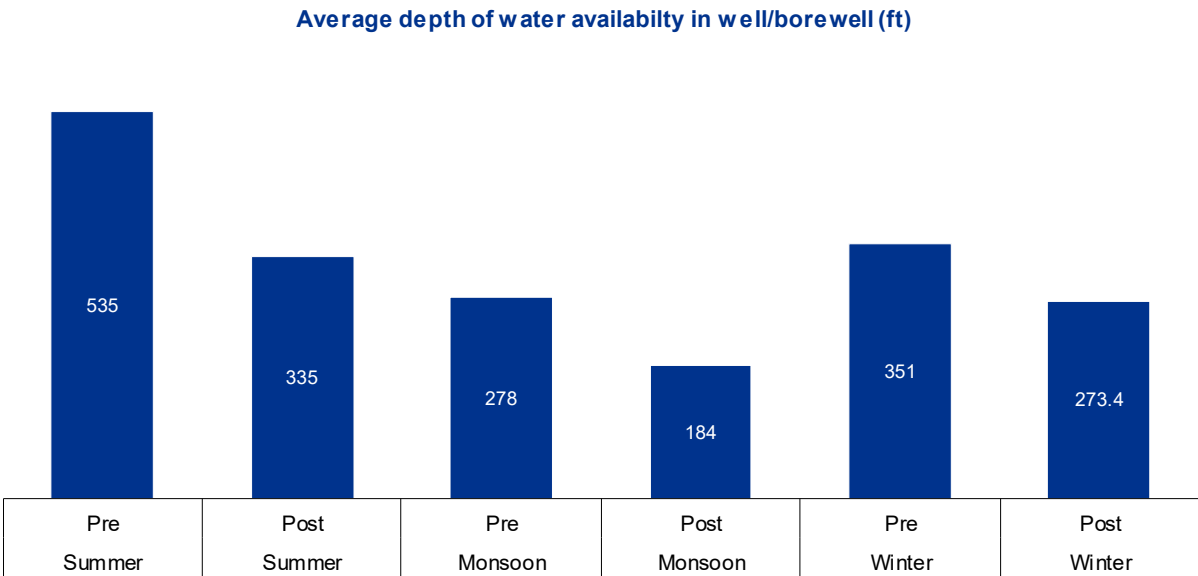
71%

Respondents reported that duration of improved water availability is 1-2 months.

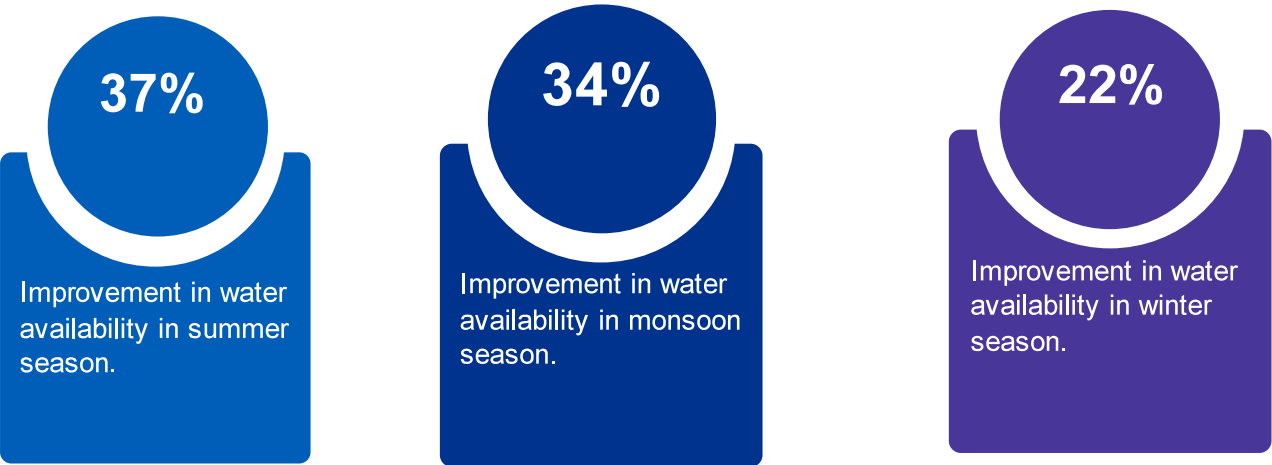
■ 1-2 Months ■ Rest

The assessment shows that the majority of respondents experienced a clear improvement in water availability following the interventions. A significant 84% of households reported increased water levels in their wells or borewells, highlighting the strong effectiveness of the implemented measures. Only 16% of respondents indicated that they did not observe any noticeable change. This positive response suggests that the water-related activities have directly contributed to improved access to water resources at the household level. The fact that 71.43% of respondents experienced increased water availability for 1–2 months indicates that the intervention had a significant but time-bound positive impact. This suggests that while the measures successfully enhanced water levels, the benefits were mostly short-term.

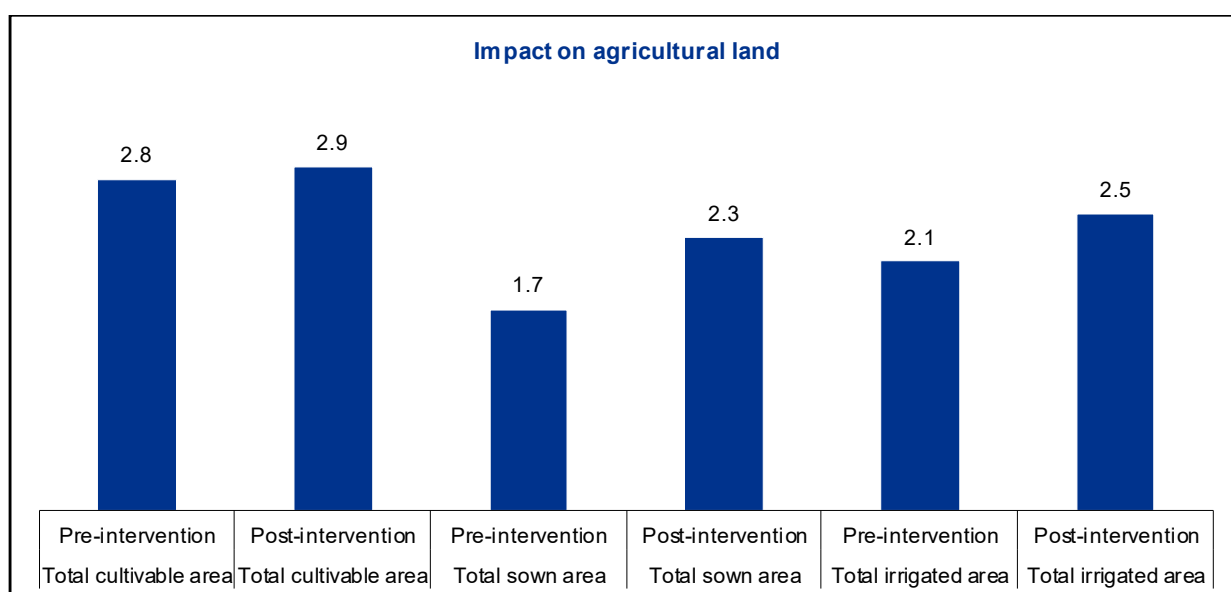
4.4. Improved Water Level



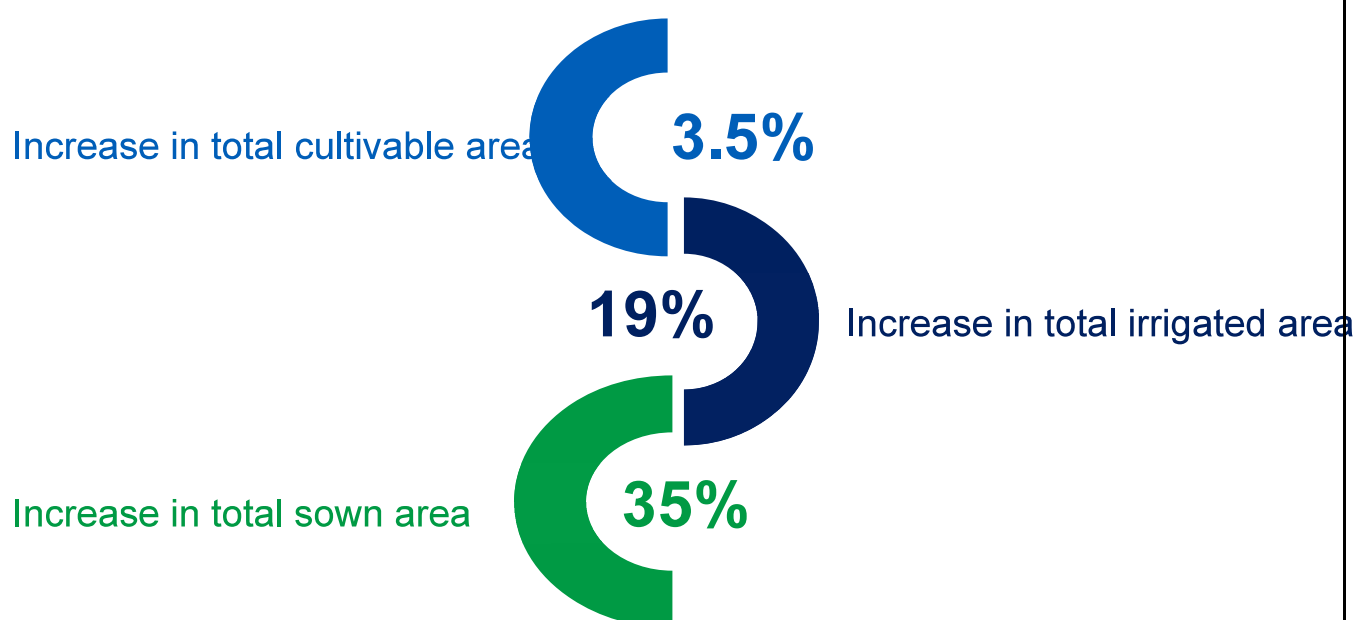
Beneficiaries with wells and borewells reported a clear and measurable improvement in water availability across all seasons after the intervention. The summer season, traditionally the most water-scarce period showed the most significant enhancement. This substantial rise in the water table demonstrates the strong effectiveness of the recharge structures and water conservation measures implemented in the project area. During the monsoon, when groundwater levels naturally rise due to increased rainfall, the intervention still contributed meaningfully to improving water availability. This indicates enhanced infiltration and strengthened aquifer recharge, even in a season that typically benefits from natural groundwater replenishment. The winter season also witnessed positive outcomes. This suggests that the recharge benefits gained during the monsoon are now being retained for longer durations, extending into the drier months and supporting water availability beyond the rainy season. Improved water levels have made wells and borewells more reliable year-round, enabling better agricultural planning, reducing vulnerability to seasonal fluctuations, and strengthening livelihood security for beneficiary households.



4.5. Impact on agricultural land



The intervention led to a modest expansion in the total cultivable area, increasing from 2.8 to 2.9 (units as reported), which represents a 3.57 percent rise. In contrast, the total irrigated area registered a much stronger gain, from 2.1 to 2.5, equivalent to a 19.05 percent increase. This pattern suggests that the project's primary effect was not merely bringing additional land under cultivation, but significantly expanding irrigation coverage on existing farmland. The marked improvement in irrigated area indicates that a larger share of land can now be reliably watered, which is likely to support more stable crop planning, enable diversification and/or an additional season of cultivation, and reduce the risks associated with rainfall variability.



4.6. Impact on silt application



14% farmers reported that they had applied silt to their fields. The application of nutrient-rich silt from the village river plays a crucial role in enhancing soil fertility, improving soil structure and increasing moisture-holding capacity.

Since the silt was provided free of cost under the project, many farmers voluntarily took the initiative to transport and apply the material across their fields. On average, silt was spread over **2 acres of land per beneficiary**, enabling wider coverage and greater benefit. Farmers noted that in areas where the land had previously been degraded or left fallow, the first cycle of silt application has noticeably improved soil texture and moisture retention. However, they also highlighted that crop yields on these plots are still comparatively lower than the village average, as soil recovery is gradual. Farmers believe that with continued silt application over subsequent years, combined with proper soil management, productivity on these rehabilitated plots will steadily improve in the coming seasons.



4.7. Impact on crop productivity

Crops	Pre-intervention (Avg Yield/Acre)	Post-intervention (Avg Yield/Acre)	Change	Increase in average productivity
Banana	98	113	16	16%
Coconut	15	20	4	29%
Cotton	21	24	3	15%
Cucumber	92	104	12	13%
Papaya	109	126	17	16%
Tomato	128	147	19	14%
Vegetables	144	166	23	16%

The yield improvements observed across banana, coconut, cotton, cucumber, papaya, tomato, and vegetables indicate that the project interventions have had a strong positive influence on enhancing agricultural productivity in the region.

The data shows a consistent rise in yields across all major crops, suggesting that improved water availability, increased soil moisture retention, and strengthened field conditions have collectively supported healthier and more resilient crop growth. Crops such as banana, papaya, and vegetables exhibited substantial yield increases of 16 percent, reflecting their strong response to better water

availability and improved soil health. These crops typically require steady moisture throughout the growing cycle, and the enhanced groundwater recharge and more reliable irrigation have enabled farmers to maintain optimal conditions even during moisture-stress periods. Similarly, tomato yields improved by 14 percent, highlighting the benefits of improved root-zone moisture and reduced stress during critical flowering and fruit-setting stages. Tree crops like coconut recorded a notable 29 percent increase, the highest among all crops assessed. This significant gain suggests that perennial crops benefitted greatly from enhanced year-round moisture availability, enabling better nut setting and higher productivity. Cotton, a crop sensitive to moisture stress, showed a 15 percent yield improvement, indicating that the interventions supported more uniform growth and reduced flower shedding common issues under irregular moisture conditions. Cucumber also showed a 13 percent increase, which aligns with its requirement for consistent soil moisture and well-aerated soil conditions.

Overall, the results clearly demonstrate that the interventions contributed not only to stabilizing crop performance but also to improving long-term soil health, strengthening water security, and enabling farmers to withstand climatic variations more effectively.

Impact on livestock

Income from livestock pre-intervention (Monthly)	Income from livestock Post-Intervention (Monthly)
5,407	7,738

Unit INR

Income from livestock showed a clear improvement after the intervention, rising from ₹5,407 to ₹7,738. This increase indicates that households experienced better productivity and economic gains from their livestock assets in the post-intervention period. The milk productivity improved with an average increase by 7 liters.

A major factor behind this rise was the improved availability of water, which directly supports fodder growth, animal health, and overall livestock management. Reflecting this, 90% of respondents reported an increase in livestock income, highlighting the strong positive impact of the intervention on rural livelihoods.

4.8. Impact on agricultural income

Income Pre-Intervention	Income Post- Intervention	Change	Average increase
337800	484800	147000	44%

The analysis of household income shows a significant improvement following the interventions. Average annual income increased from ₹3,37,800 before the intervention to ₹4,84,800 afterward, reflecting a substantial rise of ₹1,47,000, or an average increase of 44 percent. This growth indicates that enhanced water availability, expanded irrigated area, improved soil conditions through silt application, and increased crop productivity collectively contributed to strengthening household earnings. The rise in income suggests that farmers were able to cultivate more reliably across seasons, diversify crops, and achieve higher yields, ultimately leading to better economic stability and improved livelihood outcomes.

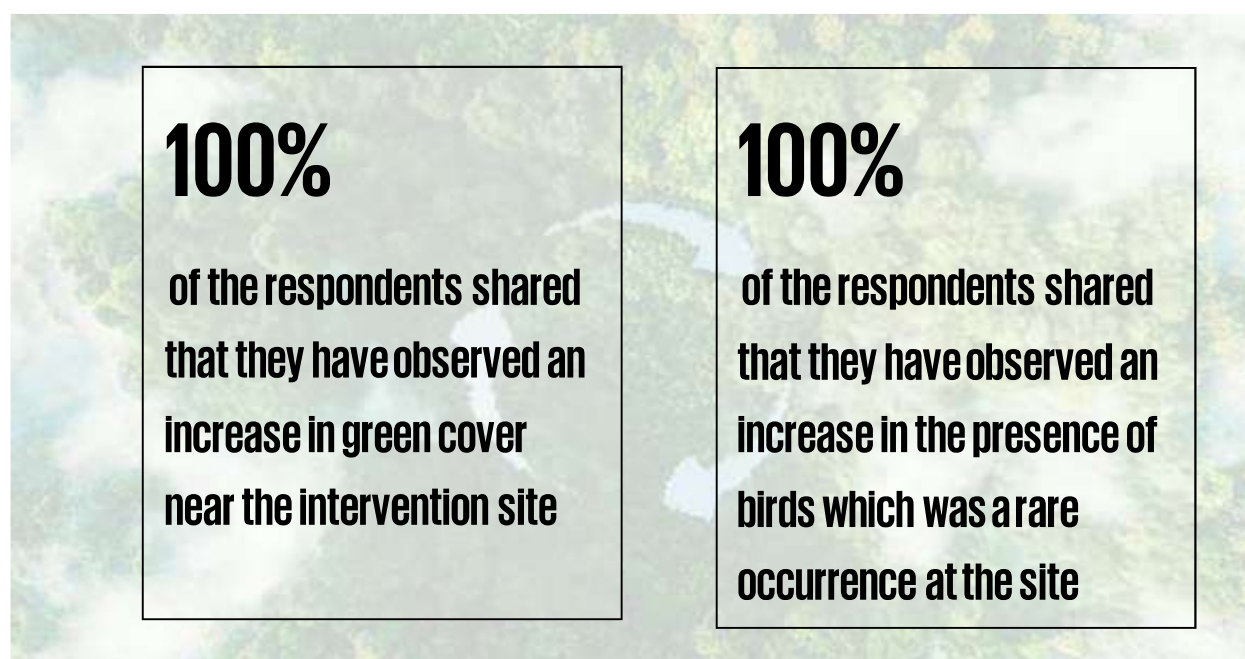
44% increase in income from agriculture

Respondents reported experiencing significant improvement in income from agricultural activities post intervention.

4.9. Impact on Asset Creation

A notable share of respondents reported that the improvement in their income has enabled them to begin investing in productive assets, with 44% indicating they have made such investments. Those who invested shared that the increased and more stable cash flow allowed them to purchase agricultural machinery, supporting better farm operations, and undertake small construction or household improvement activities. These investments reflect a shift from meeting basic needs to building longer-term assets, signalling growing financial confidence and improved economic resilience among the households.

4.10. Impact on Environment



It was noted that green cover has increased over the last year around the intervention site, mainly due to an increase in the water level of surface water. This has positively resulted in increased frequency of bird visits along the pond site, previously we rarely used to have so many birds at one place.

4.11. Case Study

The respondent reported cultivating a 3-acre farm in Siddhayahundi village. Over time, declining groundwater and poor soil fertility made farming increasingly difficult. With borewell discharge measured at only 1.5 inches, irrigation was possible on just 2 acres, forcing 1 acre to remain fallow each season. Limited water also constrained crop choices to coconut, and the respondent relied heavily on chemical fertilisers, incurring costs of about ₹1,50,000 per acre to sustain productivity.

Following the desilting of nearby ponds and lakes under the Asian Paints CSR water rejuvenation initiative, nutrient-rich silt became available. The respondent applied this lake silt across all 3 acres, which improved soil structure and moisture-holding capacity. Concurrently, the rejuvenated water bodies enhanced groundwater recharge, increasing borewell availability to 3 inches and enabling irrigation across the entire holding.

Encouraged by better water access and soil health, the respondent diversified from coconut to include banana and multiple vegetables and adopted more organic practices supported by the improved soil profile. Field observations suggest robust crop establishment and a reduction in dependence on costly chemical inputs.

The combined effect of improved water availability and silt application reduced fertiliser costs from ₹1,50,000/acre to approximately ₹10,000/acre and increased banana yield from 5 tons/acre to 15 tons/acre. The respondent anticipates about 50% additional income from banana alone, indicating that the intervention has restored the viability of the entire farm and created a more sustainable production system.

Yield of banana pre-intervention (tons/acre)	Yield of banana post-intervention (tons/acre)
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5

15

4.12. Water and soil test results

The water quality assessment for Lakkanakere, Hosakere (Siddaiahnahundi), and Bannammanakere reveals notable differences in their suitability for irrigation. While all samples show acceptable pH values within the recommended range of 6.5–7.5, the salinity and alkalinity parameters vary significantly. Hosakere water presents the highest risk, with Electrical Conductivity reaching 1.04 mS/cm well above the permissible limit of 0.25 mS/cm alongside a chloride concentration of 4.66 me/L, exceeding the maximum tolerance of 4 me/L. Lakkanakere water also shows elevated salinity (EC 0.335 mS/cm) and bicarbonate levels, while Bannammanakere remains the most suitable source, with EC (0.232 mS/cm) presenting minimal salinity hazard. All samples maintain safe Sodium Absorption Ratio (SAR) values, indicating no immediate sodicity threat; however, consistently high bicarbonate concentrations across sites, especially Hosakere (9.69 me/L), suggest potential long-term soil alkalinity concerns.

The soil test results across Lakkanakere, Hosakere, and Bannammanakere demonstrate considerable variation in pH, salinity, nutrient availability, and carbonate content. Lakkanakere soils show alkaline conditions (pH up to 8.53) with low organic carbon and moderate nutrient status. Bannammanakere soils exhibit more favourable organic carbon levels in one sample (1.11%) but also show fluctuations in available nitrogen and phosphorus. The most prominent variation appears in Hosakere soils, where one sample displays a substantial increase in Electrical Conductivity (from 0.173 to 1.56 mmhos/cm) and a sharp rise in available phosphorus (from 98.34 to 299.20 kg/ha), accompanied by a marked reduction in organic carbon (from 0.86% to 0.13%). These shifts are consistent with the influence of externally applied silt or sediment inputs, which may elevate nutrient and salt concentrations.

When both water and soil data are viewed together, Hosakere emerges as the site with the greatest agronomic risk due to the combination of saline-alkaline irrigation water and increased soil salinity and nutrient imbalances. Lakkanakere shows moderate constraints in both water and soil but remains manageable with routine amendments and monitoring. Bannammanakere consistently demonstrates the most stable conditions, with comparatively better-quality water and balanced soil parameters, making it the most reliable zone for irrigation without immediate corrective measures. This integrated assessment emphasizes prioritizing Bannammanakere for irrigation, applying cautionary management at Lakkanakere, and implementing significant mitigation strategies such as water blending, gypsum application, and careful crop selection at Hosakere.

Water test report results

Good (Acceptable)	
Medium (Permissible)	
Harmful (Non-Permissible)	

Parameter (Units)	Permissible Limit	Lakkanakere	Hosakere (Siddaiahnahundi)	Bannammanakere
pH ()	6.5 – 7.5	7.39	7.29	7.46
Electrical Conductivity (mS/cm)	≤ 0.25	0.335	1.04	0.232
Chloride (me/L)	≤ 4	0.68	4.66	0.96
Sulphate (me/L)	≤ 2	0.27	1.22	0.29
Bicarbonate (me/L)	≤ 1.5	2.18	9.69	1.94
Sodium (me/L)	≤ 22	1.05	8.68	1.45
Calcium + Magnesium (me/L)	≤ 8	3.49	7.36	3.49
Mg/Ca Ratio	≤ 1.5	0.48	0.54	0.48
Sodium Absorption Ratio (SAR)	≤ 10	0.79	4.52	1.10

Soil test reports

Lakkanakere soil test results

Parameter	Silt Application	No Silt Application
pH (1:2.5)	8.53	7.77
EC (mmhos/cm)	0.313	0.1094
Organic Carbon (%)	0.28	0.06
Available Nitrogen (kg/ha)	259.38	374.88
Available Phosphorus as P ₂ O ₅ (kg/ha)	172.92	187.44
Available Potassium as K ₂ O (kg/ha)	57.64	31.24
Total CaCO ₃ (%)	23.78	15.85

Hosakere (Siddaiahnahundi) soil test results

Parameter	Silt Application	No Silt Application
pH (1:2.5)	7.74	7.88
EC (mmhos/cm)	0.173	1.56
Organic Carbon (%)	0.86	0.13

Available Nitrogen (kg/ha)	393.36	359.04
Available Phosphorus as P ₂ O ₅ (kg/ha)	98.34	299.20
Available Potassium as K ₂ O (kg/ha)	32.78	59.84
Total CaCO ₃ (%)	15.67	23.78

Bannammanakere soil test results

Parameter	Silt Application	No Silt Application
pH (1:2.5)	7.25	7.60
EC (mmhos/cm)	0.174	0.54
Organic Carbon (%)	1.11	0.24
Available Nitrogen (kg/ha)	368.94	484.88
Available Phosphorus as P ₂ O ₅ (kg/ha)	198.66	153.12
Available Potassium as K ₂ O (kg/ha)	28.38	51.04
Total CaCO ₃ (%)	23.54	23.62

04

Measuring the Social Return

5. MEASURING THE SOCIAL RETURN

As explained in Chapter 2, this report has used two evaluation frameworks which are OECD-DAC and SRoI. Generally, OECD-DAC helps in gaining a qualitative understanding of the impact. On the other hand, SRoI helps organizations in evaluating changes which are being created by measuring social, environmental, and economic outcomes and providing monetary values to represent them. SRoI also helps in understanding the total value generated for every rupee invested for interventions.

There are two types of SRoI:

- Evaluative, which is conducted retrospectively and based on actual outcomes that have already taken place.
- Forecast, which predicts how much social value will be created if the activities meet their intended outcome.

For this study, both evaluative as well as forecasting SRoI has been considered. SRoI primarily involves six stages which are as follows:

Stage 1: Establishing Scope and identifying key stakeholders

Stage 2: Mapping outcomes

Stage 3: Evidencing outcomes and giving them a value

Stage 4: Establishing impact

Stage 5: Calculating the SRoI

Stage 6: Reporting

Stage 1 and Stage 2 have been discussed in-depth in Chapter 2. Further stages have been elaborated in the ensuing sections.

5.1. Evidencing Outcomes

After creating the impact map, outcome indicators were developed based on interactions with beneficiaries and other key stakeholders such as PRI members and implementation teams. Evidence of these outcomes was gathered through both primary and secondary data sources.

Quantity of Change: The quantity of change for the impact map was calculated by extrapolating responses from the sample to the entire beneficiary population. Based on the data collected, a proportionate percentage of total beneficiaries was estimated to represent the overall impact.

The details about the evidence indicators for the outcomes and the quantity of change against each indicator are provided below:

Duration of Outcome:

Some outcomes are long-term, lasting throughout a beneficiary's life, while others persist only as long as the intervention continues. For this SRoI analysis, impacts from infrastructure-related activities are considered for up to 5 years, whereas intangible interventions such as training are assumed to have an impact for 3 years. These timelines are based on the following assumptions:

- Water resource development creates lasting effects on groundwater and surface water levels, with corresponding economic and social benefits
- Training-based interventions require periodic updates due to technological, market, and climate changes

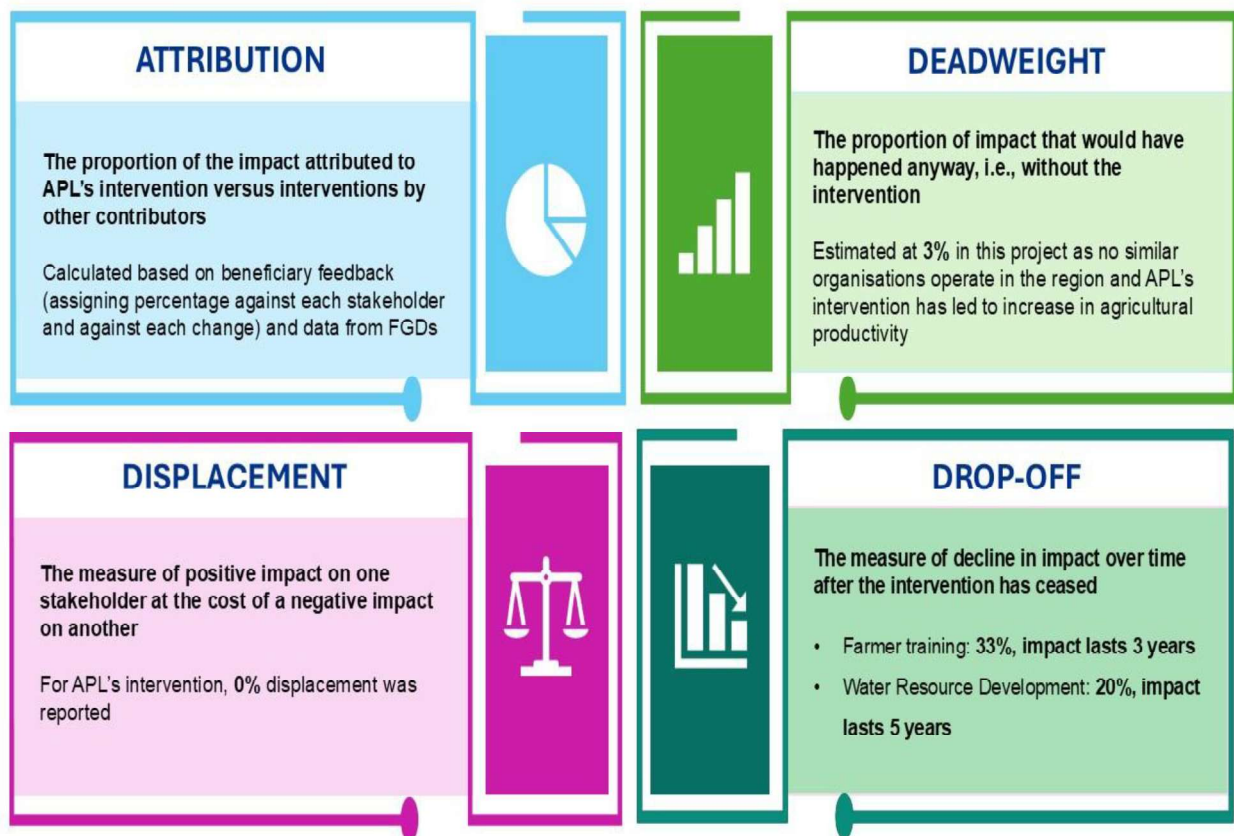
- Based on the nature of interventions and evolving income-generating activities, beneficiary and stakeholder contributions will eventually outweigh the impacts due to initial support from APL

Financial Proxy and Value of Financial Proxy:

To assign value to outcomes, financial proxies were used, following standard practice of using market prices where possible. For intangible outcomes without direct market value, the closest comparable proxy was identified. Refer to the table for outcome-wise details.

5.2. Establishing Impacts

An important part of SROI is 'measuring impact' by accounting for attribution, deadweight, displacement, and drop-off.



5.3. Calculating Impact

$$\text{Impact} = \text{Quantity of outcome} * \text{Financial Proxy Value} * (\text{Attribution} - \text{Deadweight} - \text{Displacement} - \text{Drop-off for each year})$$

SROI is a ratio of cumulative present value for each outcome against the total investment in the project i.e., **SROI = Total NPV of social value / Total investment**

Total Input Value: For SRoI calculation, inputs from APL, beneficiaries, and other stakeholders were considered, assuming all contributions collectively created the observed impact. Without any one of these inputs, the current outcomes would not have been achieved. Inputs included financial contributions from APL, beneficiaries, and stakeholders, as well as the time invested by beneficiaries in training and exposure activities. Financial values were provided by APL, while non-financial inputs were estimated in consultation with the APL CSR team.

The below table represents the total cumulative investments from all the stakeholders towards the project from the time period 2023- 2024:

InputType	Input description	Total Inputvalue(INR)
Financial inputs	CSR Funding from APL	3,63,47,657
Total		3,63,47,657

Net Present Value: The Impact Value is adjusted to reflect the Net Present Value (NPV) of the projected outcome values. This is to reflect the present-day value of benefits projected into the future.

A **discount rate of 5%** has been used for the NPV calculations.

$$\text{SRoI} = \{\text{Total present value of impact} / \text{Total value of input}\}$$

The below table depicts the NPV evaluated as of 2025 and forecasted for 2030 (considering the duration period of 5 years for each outcome):

5.4. SROI Results

The SROI for this analysis- evaluative SROI (as on 2025) and evaluative cum forecast SROI (as on 2029) - is derived from dividing the total present value of the impacts by the total input value of the investment. This is considered because the beneficiaries who have received the support in 2024 would realise the impact for the next 5 years i.e., by 2030.

The below table shows the SROI Value and the SROI Ratio before sensitivity analysis:



For every INR 1 invested, the programme has generated social impact of INR 2.73

Sensitivity Analysis: Our calculations to arrive at the results provided in this report are relied on a variety of primary and secondary data, but the beneficiary data introduced a higher level of uncertainty. This survey was utilized to estimate the attribution, additionality of APL interventions to specific outcomes, and the duration of time the impact would last.

Sensitivity Analysis was used to test variables and assumptions to ensure that conservative estimates have been used in arriving at the SROI. For each impact area, we tested the impact of using one standard deviation above and below the average response to attribution survey questions.

With sensitivity computation, the value of the APL program can then be stated in a range. For every INR 1 invested, the social value generated is between INR 2.57 and INR 3.12.

Sr. No.	Base case Parameters	Base case SROI	Test case Parameters (Min-Max)	Test case SROI
1	Deadweight	2.73	Deadweight is 0%	2.87
			Deadweight is 8%	2.73
			Displacement 0%	2.75
2	Displacement		Displacement is 5%	2.61
3			Attribution is 85%	2.57

Sr. No.	Base case Parameters	Base case SROI	Test case Parameters (Min-Max)	Test case SROI
4	Attribution		Attribution is 75%	1.82
			Drop-off is 3 years	2.67
	Drop-off		Drop-off is 5 years	3.12

Limitations & assumptions for the SROI study

- The study is limited to the sample of beneficiaries interacted with on-ground during field visits.
- The survey conducted with sample beneficiaries is subjective in nature.
- The study is limited to the recall of the participants in the study.
- The financial proxies are limited to publicly available resources. The financial proxies are representative and based on professional judgement, but it may not be reflective of actual costs incurred due to several considerations. (Refer to Appendix B for details of financial proxies)
- The deadweight, displacement, drop off values are derived from the responses from the stakeholders.
- While information obtained from the public domain or external sources has not been verified for authenticity, accuracy, or completeness, we have obtained information, as far as possible, from sources generally considered to be reliable. However, it must be noted that some of these websites/third party sources may not be updated regularly. We assume no responsibility for the reliability and credibility of such information.

05

Way Forward

6. Way Forward

The field observations highlight both the positive impacts achieved through the watershed and water management interventions, as well as several systemic gaps that require strategic attention moving forward. While the improved irrigation cycles have contributed to enhanced agricultural productivity across seasons, the sustainability of these gains depends on strengthening community institutions, promoting equitable participation, and ensuring scientific water management practices. Addressing these gaps through coordinated and community-inclusive efforts is essential for sustaining long-term water security.

A key area requiring focused action is the need to enhance community governance structures such as Water User Associations (WUAs). Their current low engagement and limited clarity of roles hinder effective water stewardship at the village level. Similarly, women's participation across the project cycle remains limited, underscoring the need for gender-responsive approaches that enable inclusive decision-making. Strengthening these social and institutional mechanisms will ensure that interventions are community-owned, equitable, and more resilient.

Key Observations	Recommendations
During the visit, it was observed that women's participation in the project cycle is low, with men primarily making the decisions.	Introduce targeted training, capacity-building programs, and gender-mainstreaming initiatives. Ensure women are involved at all project stages to strengthen sustainability and promote gender equality.
Water User Associations (WUAs) formed for Water Harvesting Structure beneficiaries were largely inactive. Members were unclear about their roles and responsibilities, resulting in low participation in water stewardship.	Update WUA bylaws that clarify governance roles, member responsibilities, decision-making processes, and coordination mechanisms. This will help shift the WUA from an inactive group to a functioning institution with shared accountability. Maintain proper fund collection mechanism for O&M.
It was noted during the visit that observation wells were identified in the village however control well near the or just far from the intervention areas was not identified. Control well observation help to gauge the impact by comparing water levels by comparing the level between two wells	Conduct detailed hydro-geological and engineering planning to design elevation-specific water security solutions. Explore alternatives such as gravity-based water systems, high-elevation storage structures, and improved distribution planning. Support the Panchayat with technical and financial guidance for installing an efficient solar pump system to reduce long-term operational costs and ensure equitable access to water for high-elevation households.
Project has potential to scale in the nearby geography as more such water conservation can be carried out as reported the PRI members	Strengthen collaboration with PRIs and district-level institutions to mobilize convergence of schemes and resources to scaling this kind of water conservation measures.

7. Annexures

(Financial Proxies used for SRoI)

Outputs	What changes?	How much?	How valuable?
Construction and refurbishment of Check dams/ Water Harvesting Structures	Creation of sustainable water supply through increment in availability and accessibility of water	Increase in water harvesting capacity (Quantum of Water Potential created or Water Harvested in Cubic Metre)	2.00
		Increased availability of water for irrigation - surface water from Water Harvesting Structure (Number of farmers x Avg increase in Irrigated land)	314.00
		Increased availability of water in wells / borewells (number of farmers/community members x Avg increase in availability of water in months/days)	330.00
	Increased agriculture production due to increment in availability of water	Increase in availability of Net Sown Area (in Ha) (Number of farmers x Avg increase per farmer)	22602.78
		Increase in agriculture produce (Number of farmers x Avg increase in yield in the year)	2203.00
		Reduction in Cost of Cultivation (Number of farmers x Avg reduction in cost annually)	3270.83
		Reduction in Cost of Irrigation (Number of farmers using Mobile Engines for irrigation x Avg hours of irrigation)	400
Trainings/ Workshops/ Demonstrations/ Non-pesticide management/ Mulching	Increased agriculture production due to enhanced agriculture practice	Adoption of improved agriculture practices (% of members indicating adoption of improved agriculture practices)	2203.00
Availability of potable water for household consumption due to increased Ground water level and Water Harvesting Structure	Increased quality an accessibility to potable water leading to improved health of community members	Reduction in Drudgery for members of household (number of households x Avg person-hours saved)	438.75
		Reduction in water borne diseases (number of households x % respondents indicating improvement in health)	661

Outputs	What changes?	How much?	How valuable?
	Increased access to water for animal husbandry activities	Increase in annual income due to availability of quality potable water for cattles and other animals (Number of households x % increase in milk yield)	52.00
Extended impact on community (beneficiaries and their family members)	Improved wellbeing for the beneficiaries and their family members	Improvement in Health seeking behaviour (Number of respondents reporting increased consumption of self-grown fruits and vegetables))	11246.61
		Improved sensitization towards child's education (Number of respondents reporting increased spend on child's education)	2067.36
Extended impact on the environment	Increased green cover due to access to water for extended period/ throughout the year due to Water Harvesting Structure	Increased green cover canal/ river due to Water Harvesting Structure construction for extended period/ throughout the year (in Metres)	0.58
	Improved soil health due to use of organic fertilizers and pesticides	Farmers spending less on chemical fertilisers and pesticides	4347.00
	Reduced soil pollution due to reduced chemical usage	Farmers using ploughing to dig lower layer of soil	700.00

Outputs	What changes?	How much?	How valuable?
	Improved bio-diversity due to availability of water for extended period / throughout the year... (birds/animals from nearby area using the water during summer)	Community members enjoying view of more birds and animals with pleasant environment	20.00



IMPACT ASSESSMENT OF INTEGRATED WATERSHED MANAGEMENT PROJECT AT WAGHOSHI, KHANDALA

March 2026

Asian Paints Limited



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Strictly Private and Confidential

Mr. Amit Kumar Singh
Vice-President, Corporate affairs & CSR
Asian Paints Limited
Mumbai, Maharashtra– 400055
India

24 March 2026

Subject: Final report for Impact assessment of CSR Projects

Dear Mr. Amit Kumar,

We appreciate the opportunity to assist Asian Paints Limited in providing **Impact assessment of CSR Projects** related services.

Please find enclosed our final report, which has been prepared in accordance with the scope and terms stated in our engagement letter dated 3rd February 2026. With this deliverable, we have completed our obligations as stated in our engagement letter.

It has been our privilege to have this opportunity to work with you, and we look forward to continuing our relationship.

Yours sincerely

Signed by:

Jignesh Thakkar,
Partner,
KPMG Assurance and Consulting Services LLP

Disclaimer

- *Our report has been prepared solely for Asian Paints Limited. KPMG does not accept or assume any liability, responsibility, or duty of care for any use of or reliance on this report by anyone, other than our Client, to the extent agreed in the Agreement.*
- *Impact assessment is limited to the projects allocated by Asian Paints Limited*
- *OECD DAC and SROI framework has been used in preparing the report as detailed herein. No professional assurance standards ex. ISAE, SSAE etc. have been applied while preparing this report and accordingly the rigors applicable under such standards are not applicable for the scope covered by our report.*
- *Procedures, analysis and recommendations, if any, are advisory in nature basis the information collected from various sources both publicly and those provided by the client.*
- *Our observations represent our understanding and interpretation of the facts based on reporting of beneficiaries and stakeholders.*
- *Our report, by its very nature, may involve numerous assumptions, inherent risks, and uncertainties, both general and specific. The conclusions drawn shall be based on the information available with us at the time of preparing the report.*
- *We shall not perform an audit and shall not express an opinion or any other form of assurance. Further, comments in our report are not and shall not be intended, nor should they be interpreted to be legal advice or opinion. Client shall be fully and solely responsible for applying independent judgment, with respect to the findings included in the report, to make appropriate decisions in relation to future course of action, if any. We shall not take responsibility for the consequences resulting from decisions based on information included in the report.*
- *While information obtained from the public domain or external sources has not been verified for authenticity, accuracy, or completeness, we have obtained information, as far as possible, from sources generally considered to be reliable. However, it must be noted that some of these websites/third party sources may not be updated regularly. We assume no responsibility for the reliability and credibility of such information.*
- *Our work shall be limited to the specific procedures described in this Engagement Letter and shall be based only on the information and analysis of the data obtained through interviews of beneficiaries supported under the programme, selected as sample respondents and discussions with APL team and stakeholders of the programme. Accordingly, changes in circumstances or information available after the review could affect the findings outlined in our report.*
- *In no circumstances shall we be liable, for any loss or damage, of whatsoever nature, arising from information material to our work being withheld or concealed from us or misrepresented to us by any person to whom we make information requests.*
- *In accordance with its policy, KPMG advises that neither it nor any of its partner, director or employee undertakes any responsibility arising in any way whatsoever, to any person other than Client in respect of the matters dealt with in this report, including any errors or omissions therein, arising through negligence or otherwise, howsoever caused.*
- *In connection with our report or any part thereof, KPMG does not owe duty of care (whether in contract or in tort or under statute or otherwise) to any person or party to whom the report is circulated to and KPMG shall not be liable to any party who uses or relies on this report. KPMG thus disclaims all responsibility or liability for any costs, damages, losses, liabilities, expenses incurred by such third party arising out of or in connection with the report or any part thereof.*
- *By reading our report, the reader of the report shall be deemed to have accepted the terms mentioned hereinabove.*

List of Abbreviations

APL	Asian Paints Limited	mS/cm	Milli Siemens per centimeters
ATMA	Agricultural Technology Management Agency	MSP	Minimum Support Price
BCM	Billion Cubic Meters	NITI	National Institution for Transforming India
BIS	Bureau of Indian Standards	NMAET	National Mission on Agricultural Extension and Technology
BOD	Biochemical Oxygen Demand	NPV	Net Present Value
CGWB	Central Ground Water Board	O&M	Operation and Maintenance
CGWB	Central Ground Water Board	OC	Organic Carbon
CPCB	Central Pollution Control Board	OECD-DAC	Organisation for Economic Co-operation and Development-Development Assistance Committee
CSR	Corporate Social Responsibility	OOPE	Out-of-Pocket Expenditure
CWC	Central Water Commission	pH	Potential of Hydrogen
dS/m	Deci Siemens per Meter	ppm	Parts Per Million
EC	Electrical Conductivity	PRI	Panchayati Raj Institution
FGD	Focus Group Discussion	qtl	quintal
FIG/FI	Farmer Interest Group	RFP	Request for Proposal
FPO	Farmer Producer Organization	ROI	Return on Investment
ft	Feet	SAR	Sodium Adsorption Ratio
HH	Household	SDG	Sustainable Development Goal
INR	Indian Rupees	SEZ	Special Economic Zone
IS	Indian Standards	SHG	Self-Help Group
kg/ha	Kilogram per Hectare	SRI	System of Rice Intensification
kg/ha	Kilograms per hectare	SRoI	Social Return on Investment
KII	Key Informant Interview	TDS	Total Dissolved Solids
KPI	Key Performance Indicator	TOC	Theory of Change
LPCD	Litres Per Capita Per Day	tons/acre	Tons per acre
me/L	Milliequivalents per litre	VI	Village Institution
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act	WASH	Water, Sanitation and Hygiene
MIDC	Maharashtra Industrial Development Corporation	WHS	Water Harvesting Structure
MPCE	Monthly Per Capita Expenditure	WUA	Water User Association

Contents

1.	Executive Summary.....	4
2.	Introduction.....	8
2.1.	Background	8
2.2.	Asian Paint Limited	9
2.3.	About The Study.....	9
2.4.	About The Project	10
2.5.	About Implementing Partner	11
2.6.	Project Geography	11
3.	Approach And Methodology.....	14
2.1	Our Approach	14
2.1.1	Oecd-Dac	14
2.1.2	Social Return On Investment (Sroi)	17
2.2	Detailed Methodology	19
4.	Analysis And Findings.....	5
4.1.	Accessibility Of The Project Across All Community Groups:	7
4.2.	Support For Water Harvesting Structures	8
4.3.	Impact On Availability And Accessibility Of Water	8
4.4.	Increase In Duration Of Water Availability.....	9
4.5.	Well Monitoring Data	10
4.6.	Impact On Surface Water.....	11
4.7.	Impact On Agricultural Productivity.....	12
4.8.	Impact Of Silt Application	13
4.9.	Impact On Crop Productivity.....	14
4.10.	Impact On Income From The Agriculture	14
4.11.	Impact On Animal Husbandry.....	15
4.12.	Impact On Migration	16
4.13.	Impact On The Environment	17
4.14.	Soil Test Results	18
4.15.	Impact On The Land Cover	19
4.16.	Soil Test Results	21
4.17.	Case Study	22
5.	Measuring The Social Return	24
5.1.	Evidencing Outcomes	24
5.2.	Establishing Impacts	25
5.3.	Calculating Impact	26

5.4.	SROI Results	26
6.	Way Forward	30
7.	Annexures	31

1. Executive Summary

Asian Paints Limited has imbibed the philosophy of transformation in its DNA and has consistently reinvented the industry. Aligning with this approach, the company's CSR efforts are focused on achieving holistic and sustainable community development. There is a strong emphasis on fostering robust trust-based relationships with communities located in the vicinity of its plants and people in the unorganized sector. These inclusive development initiatives are concentrated on health and hygiene, water conservation, skill development, and disaster management.

The Integrated Watershed Management Project at Waghoshi, Khandala was initiated to address critical water scarcity, declining groundwater, and the vulnerability of agriculture in the semi-arid regions of Satara district. With agriculture being the primary livelihood for nearly 88% of households, the project focused on improving water availability, strengthening soil health, and enhancing the resilience of farming systems through interventions such as nala deepening, desilting of earthen nala bunds (ENBs), and contour trenches, complemented by community engagement and soil-based advisory support.

The impact assessment shows that these interventions significantly improved surface and groundwater availability, eliminating the category of “poor” water availability entirely. Increased water retention led to an 18% rise in net sown area, a 51% rise in irrigated area, and 21–24% higher yields in major crops like paddy, chickpeas, and pulses. Household agricultural income increased by 28–30%, supported by improved soil moisture, expanded Rabi cultivation, and reduced production risks. Environmental improvements, including increased green cover and higher bird presence around ponds, further demonstrate ecological benefits.

Silt application, adopted by 30% of farmers, created an additional 0.8 acres of cultivable land per farmer, improving soil structure and long-term fertility, though newly cultivated silted plots initially yielded 30–40% of average output. Soil tests revealed high organic carbon and suitable pH, but persistent potassium and iron deficiencies that require ongoing nutrient management. Overall, the project demonstrates strong relevance, measurable impact, cost-effectiveness, ecological coherence, and high potential for sustainability if community institutions and maintenance systems continue to be strengthened.

KPMG conducted this impact assessment covering interventions implemented in FY 2023-24, using OECD-DAC and Social Return on Investment (SROI) frameworks and this was conducted using a mixed-method approach. For this study, KPMG interacted in two villages in the Khandala block of Satara, including direct beneficiaries and indirect beneficiaries, which include farmers, community members, PRI members and staff of the implementing agency.

Project objectives

- Increase in Water Storage Capacity in Watershed Area
- Increase in Agricultural income
- Creating Biodiversity and maintaining the green cover in selected watershed area

Key Output Numbers

265225
Water potential
created in KL

608
Beneficiary covered

Key highlights from the impact assessment study



Increase in water level in wells/borewells

Farmers in the Khandala IWSM-Shramjivi area observed a steady improvement in groundwater levels. The data shows that well and borewell depths improved across all seasons, with winter water levels rising by 4 feet and summer levels increasing by 4 feet, giving farmers more dependable access to water during critical agricultural months.



Improved water availability for irrigation purpose post-monsoon

After the intervention, farmers experienced longer availability of irrigation water. About 78% of respondents shared that water lasted for 2–3 months post-monsoon, while 22% reported 3–4 months of availability and 12% noted 1–2 months. This extended availability helped them plan their farming cycles with more confidence.



Improved water accessibility for irrigation

Water accessibility also became smoother and more reliable. Before the project, 43% rated accessibility as "Fair" while 57% rated it "Bad." After the intervention, 63% of respondents rated it "Good" and 37% rated it "Fair," indicating a noticeable shift toward easier, more dependable access to irrigation water.



Improved Multi-season cropping

With better water availability and improved soil moisture, 96% of respondents reported being able to cultivate across more than one season. This allowed farmers to diversify their crops and make more productive use of their land throughout the year.



Improved crop yield (Primary crop: Paddy)

Farmers growing paddy also saw better results. According to the findings, paddy yield increased by around 21%, which farmers linked to consistent irrigation and healthier growing conditions throughout the crop cycle.



Impact on soil health

Soil conditions improved significantly where silt application took place. In this location, 100% of farmers reported better soil fertility, with healthier texture and improved nutrient levels that supported stronger crop growth.



Increase in Agriculture income

These changes translated into financial improvements as well. About 47% of respondents shared that their agricultural income increased, supported by better yields and more reliable water availability.



Impact on income from livestock

Livestock-based income also benefitted from the improved water conditions. 20% of farmers reported an increase in earnings from livestock, mainly due to easier access to water for animals and better availability of fodder.



Impact on the environment and biodiversity

All the respondents shared that they feel the project intervention resulted positive impact on the environment and biodiversity.



Findings basis IRECS framework

I- Impact

- The project generated clear improvements in water security, with farmers reporting higher groundwater levels and longer post-monsoon water availability that supported more dependable irrigation. These changes strengthened agricultural outcomes by enabling multi-season cropping, improving paddy yields by around 21%, and enhancing soil fertility where silt application was carried out. The improvements also translated into livelihood gains, with 47% noting higher agriculture income and 20% observing better livestock-related earnings. Overall, respondents shared that the intervention contributed to positive environmental and

R- Relevance

- Majority of respondents dependent on agriculture
- Interventions such as check dams, desilting, contour trenches, and soil moisture conservation directly respond to the community's need for reliable water access and improved irrigation.

E- Efficiency

- Project completed within set timelines

C- Coherence

- Project Alignment with National Priorities-
- Directly converges with Jal Shakti Abhiyan and 'Catch
- the Rain' campaign of Ministry of Jal Shakti.
- Project align with the SDGs as mentioned, SDGs 6, SDG 1, SDG 2, SDG 15

S-Sustainability

- 100% of respondents shared that this project has brought a positive change in their life
- 100% of respondents shared good ratings for the project
- Positive impact on biodiversity due to increased surface water availability

SROI – Results

1

Total CSR Investment

INR 7,497,963

2

SROI Ratio

1:3.4

3

Sensitivity range

₹2.8 – ₹3.8 per ₹1 invested.

The Social Return on Investment (SROI) analysis for the Integrated Watershed Management Project at Waghoshi, Khandala demonstrates that the programme generated substantial social, economic, and environmental value relative to its cost. By combining improvements in water availability, agricultural productivity, and household income, the project achieved an SROI ratio of **₹3.4 for every ₹1 invested**, meaning the benefits created were more than three times the value of the investment. The assessment considered contributions from Asian Paints, implementing partners, and communities, and applied standard SROI principles such as attribution, deadweight, displacement, and drop-off to ensure a conservative and realistic valuation of impact.

Way Forward

The project has delivered strong gains in water availability, agriculture, and ecological restoration; however, sustaining these outcomes will require addressing several structural and behavioural gaps identified during the assessment. A key issue is the limited participation of women and weak functioning of Water User Associations (WUAs), which restricts community-owned governance of water structures. Strengthening these institutions through capacity-building, gender-inclusive planning processes, and simplified water-use guidelines will be critical to ensure equitable decision-making and long-term maintenance of created assets.

Another challenge that emerged is the growing shift toward water-intensive crops like sugarcane, driven by improved water availability. While beneficial in the short term, it poses sustainability risks in the medium term, especially in semi-arid regions like Khandala. To counter this, the programme must promote less water-intensive cropping choices, integrate water budgeting at the village level, and provide structured training on climate-smart agriculture. Additionally, soil test results indicate persistent potassium and iron deficiencies, even after silt application, signaling the need for balanced nutrient management and farmer awareness on long-term soil health requirements.

Finally, to ensure the durability of hydrological benefits, the way forward should prioritize annual pre-monsoon desilting, routine maintenance of trenches and ENBs, and farmer-led monitoring of groundwater levels. Scaling opportunities such as expanding nala deepening and widening as suggested by PRI members should be evaluated through participatory planning and resource mapping. By strengthening community ownership, improving agronomic practices, and institutionalizing maintenance systems, the project can transition from immediate gains to long-term water resilience, higher farm productivity, and sustained social value for the region.

2. INTRODUCTION

This chapter consists of an overview of the water stress in Indian context and Asian Paints Ltd.'s CSR efforts to address the issue. It provides an overview of the project, implementing partners, project geographies, scope, and purpose of the study.

2.1. Background

Water security has reached a critical inflection point in India because of rapid development, population pressure and climate volatility. As of 2025, India sustains approximately 18% of the global population with only 4% of the world's freshwater resources.¹ The NITI Aayog Annual Report (2024-25) warned that the country's average per capita water availability is projected to decline to 1,341 cubic meters by late 2025, pushing the nation further into the "water-stressed" category (threshold < 1,700 m³) and nearing the "water-scarcity" limit of 1,000 m³.² With abundant flow in Ganga and Brahmaputra basins and much lower availability in west and south-western basins, regional disparities exist that make proper management of local demand essential.

India's water budget remains heavily dependent on a fluctuating monsoon and there are both quantity and quality concerns with groundwater. According to the Dynamic Ground Water Resource Assessment (2024) published by Central Ground Water Board (CGWB), the total annual groundwater recharge is estimated at 446.90 Billion Cubic Meters (BCM), with an annual extractable resource of 406.19 BCM. While the average extraction rate is 60.47%, regional disparities are severe. Out of a total of 6,746 assessment units, approximately 11.1% of assessment units, primarily in Punjab, Haryana, Rajasthan, and Delhi, are classified as "over-exploited", where extraction exceeds natural replenishment.³ On groundwater quality, CGWB's Annual Ground Water Quality Report 2024 highlights localized exceedances of nitrate, fluoride, and arsenic in shallow aquifers across different states, varying seasonally with recharge and agricultural inputs.⁴ The report mentions Triple Contamination Challenge in India's groundwater, referring to the three most widespread contamination threats, each stemming from different sources- nitrate (anthropogenic), fluoride (geogenic) and salinity/electrical conductivity (EC).

Surface water pollution is another important concern. Around 70% of India's surface water is contaminated, ranking the country 120th out of 122 on the global Water Quality Index. Central Pollution Control Board's latest report titled "Polluted River Stretches for Restoration of Water Quality" identifies 150 polluted stretches nationally, including 35 Priority-1 segments where Biochemical Oxygen Demand (BOD) is greater than 30 mg/L. Wastewater from various sources, intensive agriculture, industrial activities, and untreated urban runoff contribute to this pollution, compromising the health of both humans and aquatic ecosystems.

Climate change has added to the risk of water stress. In 2024-25, India experienced a 55% increase in record heatwaves, accelerating evapotranspiration and increasing the demand for irrigation which consumes over 80% of freshwater in rural areas.⁵ Because of climate change, the monsoon pattern has become erratic, characterised by long dry spells followed by intense cloudbursts. When this happens, the natural soil infiltration is affected which results in flash floods and reduced aquifer recharge.

In this challenging water landscape, the importance of watershed management becomes apparent. Watershed management is not merely a focus on water projects but involves a holistic approach to land-use practices, afforestation, and soil and water conservation. Watershed approaches work at the hydrological unit where supply, demand and quality intersect. Steps like planting trees and protecting

¹ United Nations World Water Development Report 2024, sourced at <https://unesdoc.unesco.org/ark:/48223/pf0000388948>

² NITI Aayog Annual Report 2024-25 [NITI AAYOG, India | Annual Report 2024-25](#)

³ [Press Release: Press Information Bureau](#)

⁴ CGWB Annual Ground Water Quality Report 2025 [CGWB - Publications Repository](#)

⁵ [India's Water Crisis: Why Climate-Resilient Governance is Urgent](#)

stream banks, building small check-dams and farm ponds, contouring fields to slow water, using drip/sprinkler irrigation and involving local communities in simple monitoring make more rain soak into the ground, reduce silt in reservoirs, steady flows in the dry season and improve drinking-water availability. Such a holistic approach that addresses not only water scarcity but also soil conservation and natural resource management is crucial for ensuring a sustainable and resilient water future for the country.

2.2. Asian Paint Limited

Asian Paints, headquartered in Mumbai, is one of the largest paint companies in India. Started in 1942, the company currently operates in 14 countries with products sold in over 60 markets. Asian Paints operates in various segments, including decorative paints, industrial and automotive coatings, and home décor products like furniture, lighting, and wallpapers. APL focuses heavily on research and development, which helps it keep introducing new and improved products. The company has also launched eco-friendly and sustainable paints, in line with the growing global preference for environmentally responsible solutions.

Asian Paints goes beyond its core business by actively contributing to social and environmental well-being through its Corporate Social Responsibility (CSR) initiatives. Guided by its values of trust, fairness, and care, the company focuses on creating long-term impact in communities around its operations. Its programmes address key areas such as water conservation, healthcare and skill development, leveraging its expertise to deliver meaningful change. The objective is to empower marginalised communities and improve quality of life by tackling critical social, economic, and environmental challenges. These efforts are closely aligned with the United Nations Sustainable Development Goals (SDGs), particularly, Goal 1 (No Poverty), Goal 2 (Zero Hunger), Goal 3 (Good Health and Well-being), Goal 6 (Clean Water and Sanitation), Goal 8 (Decent work and economic growth), Goal 11 (Sustainable cities and communities) and Goal 17 (Partnership for the goals).

Asian Paints runs several initiatives in water conservation, health and hygiene, skill development, and disaster relief. Its flagship Water Stewardship Program called the Watermark program, focuses on improving water availability and security in communities around its plants. The program combines supply-side measures like pond cleaning, desilting, check-dam construction and renovation, canal lining, and integrated watershed management with demand-side interventions such as micro-irrigation, System of Rice Intensification (SRI), and sustainable farming practices. These efforts aim to restore water bodies, reduce soil erosion, and recharge groundwater, while promoting efficient water use in agriculture. By adopting a holistic approach that includes soil health and pest management, Asian Paints helps strengthen ecosystem services and improve livelihoods.

2.3. About the Study

To understand the impact created by its interventions implemented in FY 2023-24, Asian Paints Ltd. empanelled KPMG to facilitate the impact assessment of its Participatory Water Resource Management project. The objective of this study was to assess the impact of these water stewardship activities on the beneficiaries and stakeholders covered under the projects. The study aimed to understand the immediate, medium, and longer-term impact of the interventions on the targeted beneficiaries:

The duration considered for this study is financial year 2023-24.

Impact on Access & Availability of Surface & Ground Water	• To understand the impact on ground-water recharge based on well recharge data • To understand the duration of water availability post-monsoon (in months) • To understand the impact of water accessibility, availability & livelihood of the farmers
Impact on Potable Water	• To assess the impact on drinking water availability and quality due to rainwater water harvesting structures. • To assess impact on other areas like drudgery reduction, drop in health issues around the drinking water etc.
Impact on Agricultural Land & Practices	• To assess impact on season wise cropping pattern led by the availability of water in the area. • To assess impact on soil health due to balance use of fertilizer because of adoption of recommendations of soil testing report and application of organic fertilizers • To assess impact on knowledge level of the farmers about improved agricultural practices.
Impact on Farmer's Livelihood	• To assess impact of water availability on crop production (yield/acre) • To assess impact of water availability on productivity of livestock animals • To assess impact on net return/acre per farmer. • To assess the impact on livelihood opportunities created through the programme.
Other Impact Areas Apart from Water Rejuvenation	• To assess knowledge and adoption level of water efficient agricultural and risk mitigation farm practices. • To assess level of ownership by the community in the asset created: Whether community-based institutions had been formed and taking care of maintenance aspects of the assets created under the project.

2.4. About the project

Asian Paints' Water Stewardship Programs signifies the company's dedication to sustainable practices and responsible corporate citizenship. By addressing the challenge of water scarcity through community partnerships and integrated initiatives, Asian Paints aims to make a positive impact on both its operations and the communities it serves.

The Integrated Watershed Management Project at Waghoshi, Khandala in Satara district of Maharashtra was launched to address water scarcity and improve agricultural sustainability in the region. The initiative focused on enhancing water storage and recharge capacity by rejuvenating existing water bodies and creating new structures. Key interventions included deepening and widening of nalas, desilting of earthen nala bunds (ENBs), and constructing staggered contour trenches to reduce soil erosion and improve groundwater recharge. The project also aimed to boost agricultural income and preserve biodiversity by maintaining green cover in the watershed area. Community engagement was central to the effort, with Village Development Committees formed and training sessions conducted for local leaders to promote water literacy and sustainable farming practices. The project aimed to improve irrigation and drinking water availability, positively impacting livelihoods and fostering environmental resilience in the region.

Objectives of the project are:

- To increase the water storage capacity in watershed area
- To increase agricultural income
- To create biodiversity and maintain the green cover in selected watershed area

2.5. About implementing partner

Shramjivi Janata Sahayyak Mandal (SJSM), established in 1980 by a group of nomadic tribal youth near the Koyna Dam in Satara, Maharashtra, began its journey addressing the developmental vacuum in regions affected by displacement, earthquakes, and sanctuary declaration. SJSM focuses on empowering marginalized communities by forming people's organizations and cooperatives. Built on principles of gender justice and community-led development, it has expanded its focus beyond livelihoods to include community health, education for tribal children, disaster management, watershed development, water and sanitation, groundwater management, agriculture, and climate resilience. With watershed projects covering 25,000 hectares and tribal rehabilitation programs in Konkan, SJSM impacts 500+ villages across Satara, Sangli, and Raigad. Through community-led initiatives, it aims to build strong, inclusive, and sustainable rural futures.

Map 1 Political Map of Maharashtra Highlighting Satara District



2.6. Project Geography

Satara District is located in the western part of Maharashtra. It is bounded by Pune (North), Raigad (North-West), Ratnagiri (West), Sangli (South), and Solapur (East).

The district lies partly in the Western Ghats (Sahyadri range) and partly on the Deccan Plateau, resulting in hilly western regions and flat to undulating eastern plains.

Western Satara is mountainous with steep slopes and plateaus, while the eastern region consists of gently sloping plains and drought-prone areas such

as Man and Khatav talukas. Satara is mainly drained by the Krishna River basin and partly by the Bhima River basin. Major rivers include Krishna, Koyna, Venna, Urmodi, Tarali, Nira, and Manganga.

The climate varies from very high rainfall (>6000 mm) in Mahabaleshwar (Western Ghats) to low rainfall (~500–600 mm) in eastern talukas. Rainfall decreases from west to east due to the rain-shadow effect.

The district mainly has black cotton soil, light murum soil, and laterite soil. Black soils dominate river valleys, while laterite soils occur in western hilly regions. Due to varied soils and climate, crops such as sugarcane, paddy, jowar, bajra, wheat, pulses, and horticultural crops (strawberry, fruits) are widely grown. Satara district covers a total geographical area of approximately 10,480 sq. km, making it one of the larger districts in Maharashtra.

Khandala Block is situated in the northern part of Satara district, Maharashtra, approximately 55 km south of Pune. Administratively, it is one of the eleven talukas of Satara district, with Khandala town as its headquarters. The block shares boundaries with Purandar taluka (Pune district) to the north, Phaltan and Baramati talukas to the east, Wai and Bhore talukas to the west, and Wai and Koregaon talukas to the south. Due to its proximity to Pune and location along the Pune–Bangalore National Highway (NH-48), Khandala occupies a strategically important position in the district.

Khandala Taluka forms part of the transitional zone between the Western Ghats and the Deccan Plateau. The terrain is mostly undulating to gently sloping, with the Mahadev hill ranges covering parts of the southern boundary. The Nira River flows along the northern side of the block and is a major source of irrigation. Important water structures such as the Veer Dam and Bhatghar Dam support agriculture and industrial water demand in the region.

The climate is semi-arid to sub-humid, with moderate rainfall compared to the western talukas of Satara. Soil types are predominantly medium to deep black cotton soils in irrigated areas and lighter soils in upland regions, making the block suitable for both agriculture and industrial development.

Although Khandala receives canal water from the Nira River system, water availability is highly seasonal. During good monsoon years, irrigation and drinking water supply improves, but summer months (March–May) regularly witness shortages in several villages and settlements due to declining reservoir levels and reduced canal rotations.

Groundwater exploitation has increased significantly. Khandala is underlain by hard basaltic formations, where groundwater recharge is slow and storage is limited. Excessive borewell extraction has led to declining water tables during summer.

Khandala Block is recognized as one of the most industrially developed talukas in Satara district. The key driver of industrial growth is the presence of MIDC-developed industrial areas, notably:

- Khandala MIDC Phase I & Phase II
- Lonand MIDC
- Kesurdi SEZ (MIDC)
- Shirwal Industrial Zone

These industrial estates benefit from excellent road connectivity via NH-48, proximity to Pune metropolitan region, and access to rail freight facilities at Lonand, making Khandala a preferred location for manufacturing and logistics units.

02

Approach & Methodology

3. APPROACH AND METHODOLOGY

The chapter provides details on the research design and methodology adopted for the impact assessment. It includes description of the key activities, data collection methods, and sampling strategies, employed to ensure the reliability and validity of the findings.

2.1 Our Approach

The study applied the OECD DAC and SROI frameworks to design the evaluation and measure the social returns and impacts generated by APL's CSR projects on water stewardship. The OECD DAC framework is a globally recognized approach for assessing the effectiveness of social development programs, while the SROI methodology goes beyond traditional economic metrics to capture broader social and environmental value.

A structured four-phase methodology was adopted to ensure a comprehensive evaluation. This approach integrated the principles of both OECD DAC and SROI throughout the process, enabling a robust assessment of outcomes and the overall impact of the program.

Phase I: Consulting and Scoping	Phase II: Research Design	Phase III: Data Collection	Phase IV: Analysis and Reporting
Kick-off meeting	Development of Impact Map	Development of field visit plan	Analysis of collected data using OECD DAC framework and estimating the SROI of the projects
Desk review of documents and reports related to the program	Mapping the stakeholders	Field visits and stakeholder interactions	Development of draft and final report
Determining the scope of the study	Designing sampling strategy and data collection tools		Presentation to APL Team

2.1.1 OECD-DAC

The Organization for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) introduced its evaluation criteria in 1991 as a structured framework for assessing development programs, whether ongoing or completed. This approach enables a systematic review of multiple dimensions of a program, offering both qualitative insights and quantitative measures of impact. The framework is widely recognized for its ability to evaluate effectiveness and relevance in social development initiatives. It is built around the following six key criteria, which form the basis for comprehensive program assessment under the OECD-DAC guidelines:



These evaluation criteria have been defined below along with illustrative questions:

Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
Relevance	A measure of the extent to which the intervention objectives and design respond to beneficiaries, global, country, and partner/institution needs, policies, and priorities, and continue to do so if circumstances change. ▪ To what extent are the objectives of the project still valid? ▪ Are the activities and outputs of the project consistent with the overall goal? ▪ Are the activities and outputs of the project consistent with the intended impacts and effects?	<i>Commitments of the stakeholders are integrated into Project design and planning</i>
Effectiveness	A measure of the extent to which the intervention achieved, or is expected to achieve, its objectives, and its results, including any differential results across groups.	<i>Achieved cross-cutting objectives during project implementation</i>

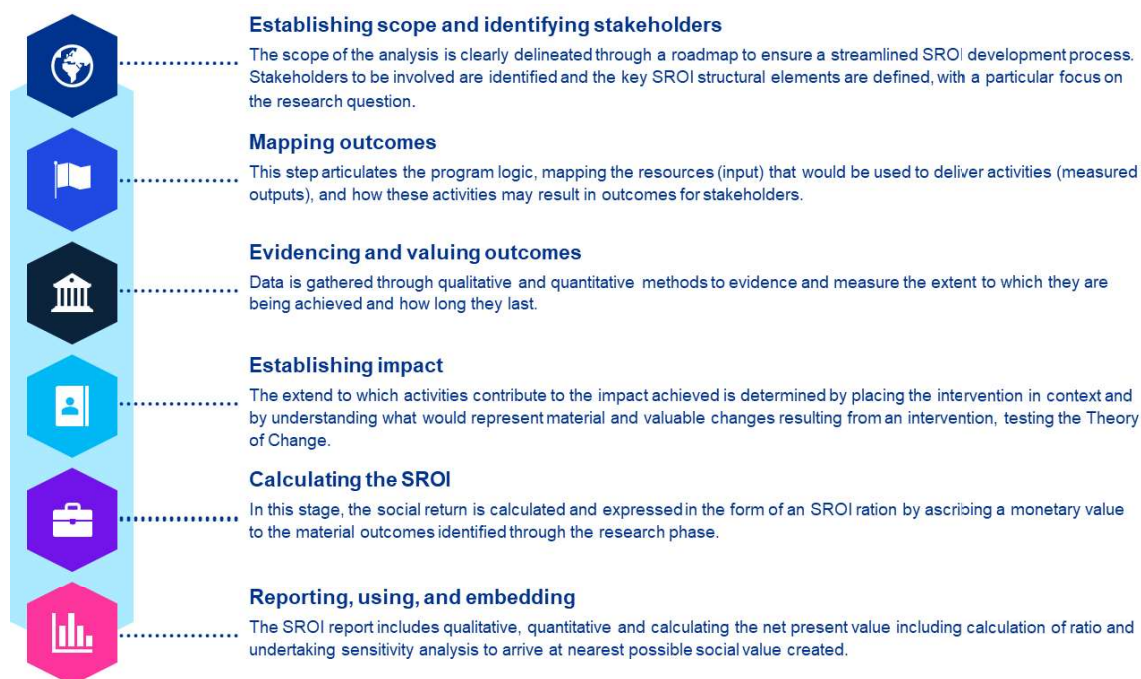
Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
	▪ To what extent were the objectives achieved / are likely to be achieved? ▪ What were the major factors influencing the achievement or non-achievement of the objectives?	
Efficiency	A measure of the extent to which the intervention delivers, or is likely to deliver, results in an economic and timely way. ▪ Were activities cost-efficient? ▪ Were objectives achieved on time? ▪ Was the project implemented in the most efficient way compared to alternatives?	<i>Resources are provided and efficiently used for participation of all stakeholders</i>
Impact	A measure of the extent to which the intervention has generated or is expected to generate significant positive or negative, intended, or unintended, higher-level effects. ▪ What has happened as a result of the project? ▪ What real difference has the activity made to the beneficiaries? How many people have been affected?	<i>Achieved real and long-lasting positive changes in the lives of intended beneficiaries</i>
Sustainability	A measure of the extent to which the net benefits of the intervention continue or are likely to continue. ▪ To what extent did the benefits of a project continue after donor funding ceased? ▪ What were the major factors which influenced the achievement or non-achievement of sustainability of the project?	<i>Likelihood that project achievements will continue after project</i>

Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
	What can be some of the innovative ways to make the project sustainable in the long run?	
Coherence	A measure of the extent to which the intervention is compatible with other interventions in a country, sector, or institution. - Does the project address the synergies and interlinkages between the intervention and other interventions in the same organisation and in the same sector/policy landscape? Does it weaken or enhance the impact of any current programs or policies? - Does the program lead to duplication of efforts?	<i>The extent to which other interventions (particularly policies) support or undermine the intervention and vice versa.</i>

2.1.2 Social Return on Investment (SROI)

Social Return on Investment (SROI) is a structured approach designed to capture and measure the broader value created by an investment. It covers the social, environmental, and economic benefits that traditional cost-benefit analyses often overlook. This methodology assigns monetary values to social and environmental outcomes, enabling organisations to calculate how much value is generated for every rupee spent on a program. Unlike conventional assessments, SROI focuses on changes that matter most to stakeholders, providing a clear picture of the social impact of projects and policies.

By using SROI, organisations can demonstrate the social value their initiatives deliver, gain deeper insights into stakeholder impact, and integrate these findings into strategic decision-making. It is fundamentally about value rather than just financial returns and can be applied to an entire organisation or a specific program. The approach uses a theory of change or impact map to outline how interventions lead to measurable outcomes, expressed in monetary terms, allowing for a benefit-to-cost ratio calculation. SROI combines qualitative, quantitative, and financial data, along with case studies, to inform future planning. Its key advantage lies in going beyond identifying outcomes to valuing them and calculating their social worth. Steps of a SROI are as follows:



Setting the Scope 	Identification of stakeholders including beneficiary group, finalising the scope- setting the boundary of what is going to be considered for evaluative SROI - stakeholders including beneficiaries, impacts, program period, etc.
Mapping Outcomes 	Creating impact map, identifying investments, and valuing inputs, identifying outcome sand indicators for monitoring / evidencing outcomes
Evidencing Outcomes 	Collecting and analysing outcome data and establishing how long the outcome will last
Establishing Impacts 	Identifying and valuing financial proxies, adjusting outcomes using deadweight, displacement, attribution and drop off, calculating the impact
Calculating SROI 	Programming the value of outcome into future based on the duration for which the impact will last, calculating the net present value including calculation of ratio and undertaking sensitivity analysis.

The process of calculation of SROI largely focuses on deadweight, displacement, attribution, and drop-off in association with any outcomes achieved. All these aspects are generally expressed as percentages and these percentages are applied to the financial proxy of each outcome to arrive at the total impact for the outcome. Therefore, we used a customised framework involving a combination of OECD-DAC and SROI to obtain a full picture of the impact created by APL.

2.2 Detailed Methodology

The following section discusses the methodology being employed by KPMG in this impact assessment, which has been broken down into four phases.

PHASE I: CONSULTING AND SCOPING

Activity 1: Inception Meeting

The initial step involved a scoping and kick-off meeting between the KPMG team and APL to finalize the work plan. The key tasks, timelines, and approach for the engagement were discussed. A detailed project plan was prepared by KPMG to guide the execution.

Activity 2: Desk Review and Stakeholder Engagement

The team conducted a thorough review of documents provided by APL, including concept notes, annual reports, and progress or closure reports. Secondary research was also conducted to gain an in-depth understanding of the project locations and interventions. Additionally, discussions with APL and implementing partners helped clarify KPIs, map external stakeholders, and define the sampling strategy and size.

PHASE II: RESEARCH DESIGN

Activity 1: Developing the Impact Map / Theory of Change

An impact map based on the theory of change was created to define the project's outcome and impact parameters. This map serves as a logical framework that illustrates how inputs (actions or activities undertaken) lead to outputs (immediate changes resulting from interventions), which then drive outcomes (short- or medium-term effects linked to those outputs) and ultimately generate impact (positive or negative, intended or unintended, direct or indirect) arising from the interventions.

Impact map for the Integrated Watershed Management Project at Waghoshi, Khandala:

Activity 2: Stakeholder Mapping and Sampling strategy

Stakeholder mapping is the process of identifying all the stakeholders involved in a project and their roles and responsibilities on one map. The main benefit of a stakeholder map is to get a visual representation of all the people who can influence the project and how they are connected. Stakeholders who experience change, whether positive or negative because of the interventions carried out were considered for the study. Furthermore, their pertinence to the scope of the study and relevance to the overall analysis were assessed.



Sampling of stakeholders for engagement was done based on the materiality of the stakeholder and the extent of the impact on the stakeholder. Considering the overall outreach of the project as nearly 608 beneficiaries. We have taken an extra sample stakeholder to derive an accurate social return on investment ratio. The stakeholder-wise mode of interaction has been detailed out below:

Stakeholder type	Universe	Sample	Actual coverage
Farmers	608	100	100
Benefitted due to water intervention			
PRI Members	-		4

For the impact map refer next page

Impact Map

Stakeholder	Project Objectives	Inputs	Output	Outcome	Evidence Indicator
Farmers, Community members FPO/VI/WUA	To promote basic supplementary irrigation facilities by creating and strengthening water harvesting structures and increase water storage and availability;	Construction and refurbishment of check dams, ponds and other WHS, Capacity building, Access to Finance, Time	Number of families reached out / availed benefits of check dams and other water harvesting structures	Increase in agricultural production	Changes in availability of cultivated land Changes in cropping pattern by farmers Changes in multi-seasonal cropping
				Access to secure livelihood	Changes in the input cost required for agriculture
				Creation of sustainable water supply	Changes in the irrigation fed agriculture, changes in the availability of water, reduced dependency on the other sources of water
				Creation of employment opportunities	Changes in the labour employment by the local population
	To improve and stabilize surface soil to convert unirrigated land to irrigated land.		No. of families benefited from Group wells & Borewell	Access to potable water	Reduction in water borne diseases (Improvement in health), reduction of drudgery (time saved)
				Access to secure livelihood	Changes in the input cost required for agriculture, adoption of improved agriculture practices
				To organize and strengthen the village institutions around water harvesting and related livelihoods	No. of village institutions benefited

Impact Map

Stakeholder	Project Objectives	Inputs	Output	Outcome	Evidence Indicator
			Increase in water storage capacity	Improved biodiversity in the catchment area	Increase in biomass in command area, Improved bio-diversity – presence of bird and animal species, Improved soil health, Reduced soil pollution.

Stakeholder	Reason for Inclusion	Data collection tool
Farmers who have been benefitted due to water harvesting related interventions	Since the farmers are the direct beneficiaries of this study hence it is important to include them to understand if the objectives of this program have been met.	<i>Structured Questionnaire:</i> were developed <i>In-depth Interview:</i> were also undertaken
Farmers who have been benefitted due to agriculture related interventions	Agriculture is a key intervention, Hence, it is critical to get their perspective of the beneficiaries	<i>Structured Questionnaire:</i> were developed for farmers <i>In-depth Interview:</i> were also undertaken
Community members benefitted due to potable drinking water	The community members from the intervention area have been a key stakeholder and receiver of the impact hence, it is important to get their perspective.	<i>Semi-structured Questionnaire:</i> were developed for community members
WUA members	In order to understand the governance mechanism established over the water usage, these stakeholders are important	<i>Structured Questionnaire:</i> were developed <i>In-depth Interview:</i> were also undertaken
Stakeholders excluded from the study		
PRI Members and government officials	Excluded - Tertiary stakeholders not considered	Not applicable
Community members from periphery of intervention villages	Excluded - It was understood from the implementing team that due to no direct intervention, these stakeholders will remain outside the scope of the intervention	Not applicable

The study includes three categories of beneficiaries: primary, secondary, and tertiary. Farmers, as the direct and intended recipients of project interventions, constitute the primary beneficiaries. Their family members and other community stakeholders constitute the secondary beneficiaries. Additionally,

interactions were conducted with institutional stakeholders such as Panchayati Raj Institution (PRI) representatives and government officials, who constitute the tertiary stakeholders.

Activity 3: Development of Data Collection Tools

A mixed-methods approach was used, supported by a desk review to identify information gaps. Survey instruments were developed to capture quantitative and qualitative data, and semi-structured interviews were designed for key stakeholders to gather deeper insights. All tools were aligned with program objectives and the scope, with additional questions added for the case study. Tools developed included:

- Individual interaction tools
- Focus group discussion tools
- Stakeholder interview tools
- A research and data collection plan

PHASE III: DATA COLLECTION

Activity 1: Field-Visit Plan

Field visits were planned with APL and the implementing partner, including scheduling, stakeholder coordination, and translation support. Key risks such as language and cultural issues were considered to ensure smooth and ethical data collection.

Activity 2: Field Visits

Data was collected through interviews, FGDs, and KIIs using trained teams and pre-tested tools. Data quality was monitored throughout via checks and triangulation.

PHASE IV: ANALYSIS AND REPORTING

Activity 1: Data Analysis

Qualitative and quantitative data were analysed, triangulated, and reviewed by location. SROI and OECD-DAC frameworks guided the assessment, along with sensitivity analysis.

Activity 2: Reporting

An enterprise-level report and project-level reports were prepared and shared with APL, with a draft reviewed before finalisation.

03

Analysis and Findings

4. ANALYSIS AND FINDINGS

Demographic Profile

Age

The age distribution of respondents of the both village indicates a concentration in the 40–60 years cohort (50%), with 28% above 60 years and 22% in the 25–40 years group. This suggests that program feedback and perceived impacts are primarily shaped by middle-aged and senior participants.

Age in years	25 to 40	40 to 60	Above 60
	22%	50%	28%

Education

District	No formal education	Up to 5th	Up to 10th	Up to 12th	Beyond 12th
Waghoshi	20%	17%	14%	20%	17%
Bhade	13%	47%	13%	13%	13%

Overall, respondents show a sizeable presence of lower schooling levels, with 26% up to 5th standard and 18% with no formal education, while 18% report schooling up to 12th and 16% beyond 12th. Waghoshi exhibits a relatively distributed education profile across categories, suggesting broader ease with mixed communication formats. Bhade shows a concentration at primary schooling (up to 5th at 46.67%) and no respondents in the up to 8th category.

Income

Primary source of income

The data indicates that agriculture is the primary occupation for a large share of respondents across both villages, accounting for 88% overall. In Bhade, agriculture dominates livelihood patterns at 93%, with the remaining 7% engaged in job-based employment and no reported participation in labour or small business activities. Waghoshi shows a more varied occupational profile, with 86% dependent on agriculture, alongside small representations in small business (9%), labour (3%), and job-based employment (3%). Overall, the findings reflect a strong dependence on agriculture as the main livelihood, with limited diversification into non-farm activities, particularly in Bhade. This livelihood structure underscores the relevance of water-related interventions for sustaining agricultural productivity and household income stability.

Villages	Agriculture	Job	Labourer	Small business
Waghoshi	86%	3%	3%	9%
Bhade	93%	7%	0%	0%
Grand Total	88%	4%	2%	6%

Secondary source of income

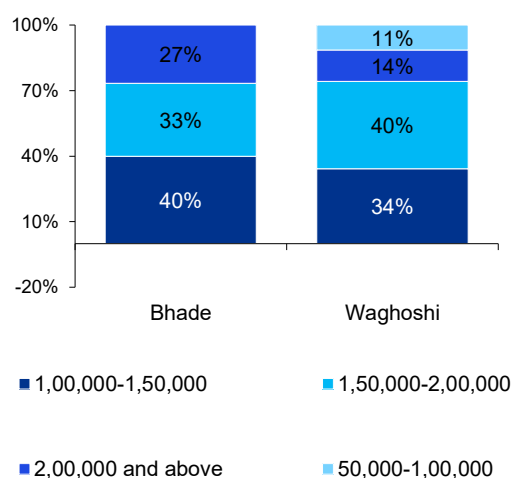
Villages	Job	Labourer	Livestock	Migration	Small business
Waghoshi	15%	21%	41%	3%	21%
Bhade	27%	7%	47%	0%	20%

Villages	Job	Labourer	Livestock	Migration	Small business
Grand Total	18%	16%	43%	2%	20%

Across both villages, secondary incomes are primarily derived from livestock (42.86%), followed by small business (20.41%), job-based sources (18.37%), and labour work (16.33%), with migration reported by 2.04%. The distribution indicates that households tend to supplement earnings through locally anchored activities, with limited reliance on migration for secondary income. As per the interaction during FGD, it was noted that some families in the villages go to the Konkan division of Maharashtra for livelihood purposes.

Income Profile

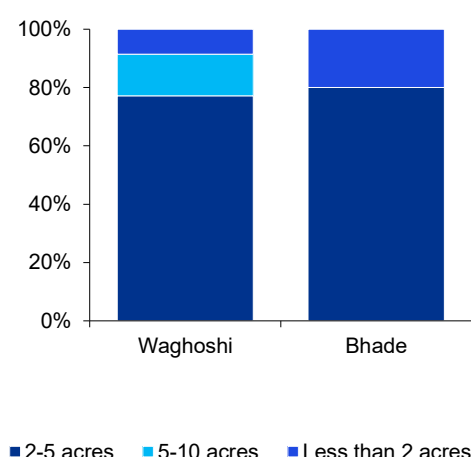
Household income (unit in INR)



Across the sample, household incomes are concentrated in the middle ranges, with 38% in the 1,50,000–2,00,000 bracket and 36% in the 1,00,000–1,50,000 bracket. A further 18% report 2,00,000 and above, while 8% fall in 50,000–1,00,000. The distribution indicates that most households are situated between 1,00,000 and 2,00,000, with a smaller share at the lower end and a meaningful segment at 2,00,000 and above.

In Waghoshi, 40% are in 1,50,000–2,00,000, 34% in 1,00,000–1,50,000, 14% in 2,00,000 and above, and 11% in 50,000–1,00,000. The distribution is more spread across brackets relative to Bhade, including some representation in the lower bracket and a smaller share in 2,00,000 and above.

Land Holding



Land holding pattern

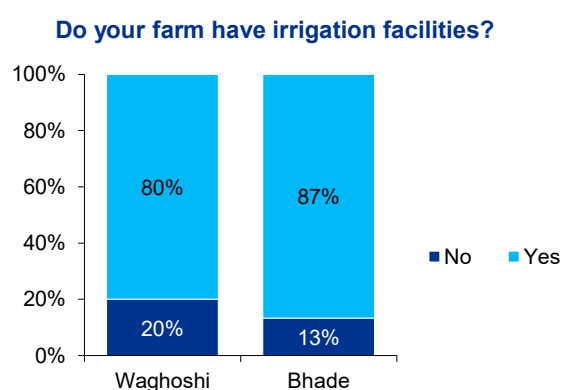
All the farmer shared that they own the land which they cultivate. Across the sample, landholdings are largely in the 2–5 acre range (78%), with 10% in 5–10 acres and 12% below 2 acres. Waghoshi broadly mirrors this pattern (77% in 2–5 acres; 14% in 5–10 acres; 9% below 2 acres). Bhade shows 80% in 2–5 acres, no households in the 5–10 acre category, and 20% below 2 acres. The distribution indicates a beneficiary base primarily operating small to medium plots, with Bhade exhibiting a higher presence of marginal holdings relative to Waghoshi.

Crop Profile

The cropping pattern in the villages shows clear season-wise differentiation aligned with rainfall availability and irrigation access. During the Kharif season, cultivation is centered around paddy, sugarcane, and pearl millet, reflecting dependence on monsoon rainfall and crops suited to higher soil moisture conditions. Paddy remains an important seasonal crop, while pearl millet represents a relatively drought-tolerant option. Sugarcane, though perennial, continues to be managed during this period as a key cash crop.

Kharif		Rabi		Summer	
Paddy		Wheat		Groundnuts	
Sugarcane		Chickpeas		Pulses	
Pearl Millet		Onion			
		Groundnuts			

Irrigation Facility



Across the sample, 82% of respondents report access to irrigation facilities, while 18% do not. Access is comparable across villages, with Bhade at 87% and Waghoshi at 80%, indicating a higher share of irrigated holdings in Bhade. The majority of farmers have wells and electric-motor pumps for irrigating their fields. On rare occasions, farmers use the diesel-powered pumps, which are available on a rental basis in nearby villages, as reported by the respondents during FGD.

4.1. Accessibility of the project across all community groups:

100% respondents reported-



Accessibility for all social groups – class, caste, race, religion, differently abled, elderly, etc.

The analysis reflects the level of inclusivity in the project's activities. The KPIs, accessibility for all social groups, is a critical measure of the project's social inclusivity, and the data indicate that the project has performed well, with a 100% accessibility rate. This indicates that the project has taken the necessary measures to ensure that all social groups, regardless of caste, class, race, religion, or other factors, have equal access to the support interventions. This demonstrates the

project's commitment to social equity and inclusion. By improving accessibility for all social groups, the project can ensure that the benefits of its activities are shared equitably, promoting sustainable development in the region.

4.2. Support for water harvesting structures

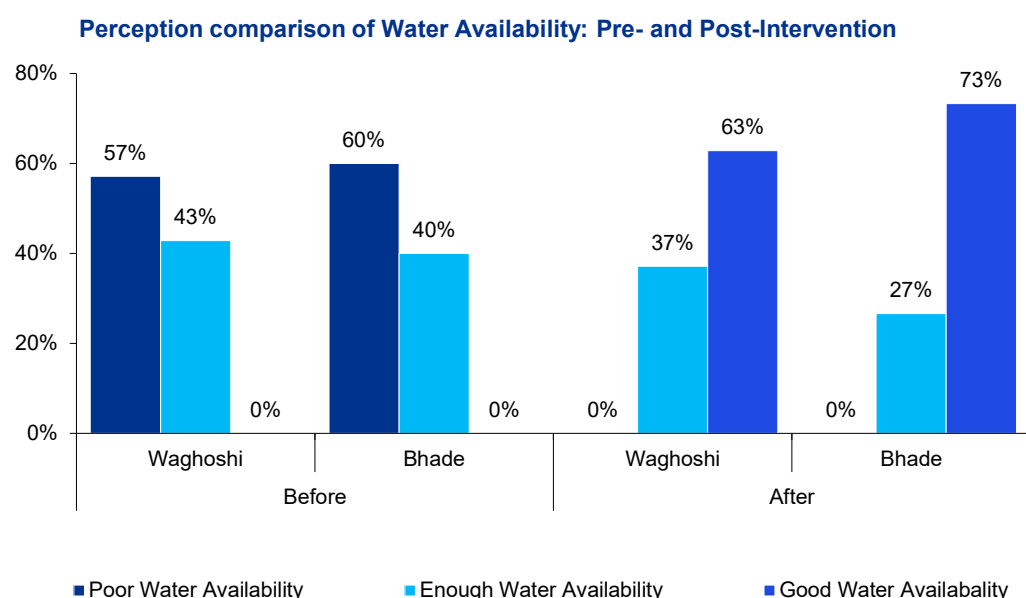
As part of the project evaluation, consultations were conducted with project beneficiaries to obtain feedback on the interventions. During these discussions, all respondents reported experiencing positive outcomes from the water-related activities implemented in the project area, indicating a broad level of satisfaction with the project interventions.

The consultations also revealed that beneficiaries were actively engaged during the planning and implementation stages of the project, and that their inputs were considered in decision-making processes. This reflects the participatory approach adopted by the project, which supports community ownership and contributes to the long-term sustainability of the interventions.

During the implementation phase, the implementing partner conducted regular awareness and motivation sessions to engage farmers who initially showed limited interest. These efforts helped address concerns, build understanding of the project benefits, and encourage community participation in project activities.

Impact Findings

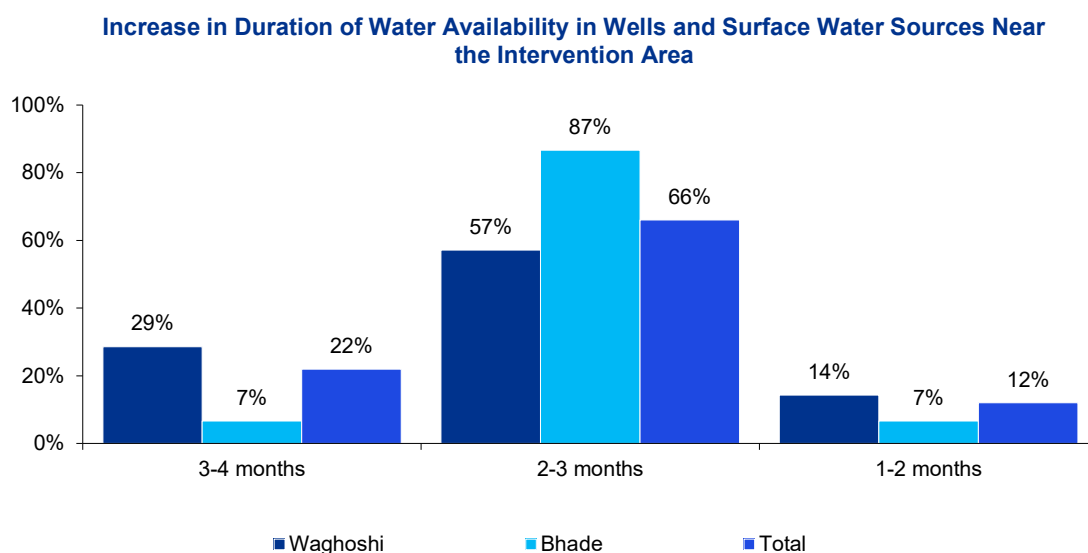
4.3. Impact on availability and accessibility of water



Analysis of the responses on before-and-after household water availability data for Waghoshi and Bhade indicates a substantial improvement in water security following the implementation of contour trenches, nala deepening, and desilting of earthen nala bunds (ENB). In Waghoshi, the share of households reporting “Poor” availability declined from 57% to 0%, while “Good” availability increased from 0% to 63% and “Enough” adjusted from 43% to 37%, reflecting upward mobility into the highest availability tier. Similarly, in Bhade, “Poor” availability reduced from 60% to 0%, “Good” increased from 0% to 73%, and “Enough” decreased from 40% to 27% for the same reason. The complete elimination of the “Poor” category in both villages and the 63–73 percentage-point gains in “Good” availability are consistent with the expected hydrological effects of these interventions—namely improved infiltration, enhanced localized storage, and strengthened baseflow retention—thereby improving reliability across seasons. While external influences such as inter-annual rainfall variability cannot be fully ruled out without control comparisons, the magnitude and direction of change across both locations strongly

suggest that the interventions were the principal drivers of the observed improvements. Continued performance can be sustained through routine pre-monsoon desilting, minor structural maintenance of trenches and ENBs, and periodic monitoring of water levels and household access.

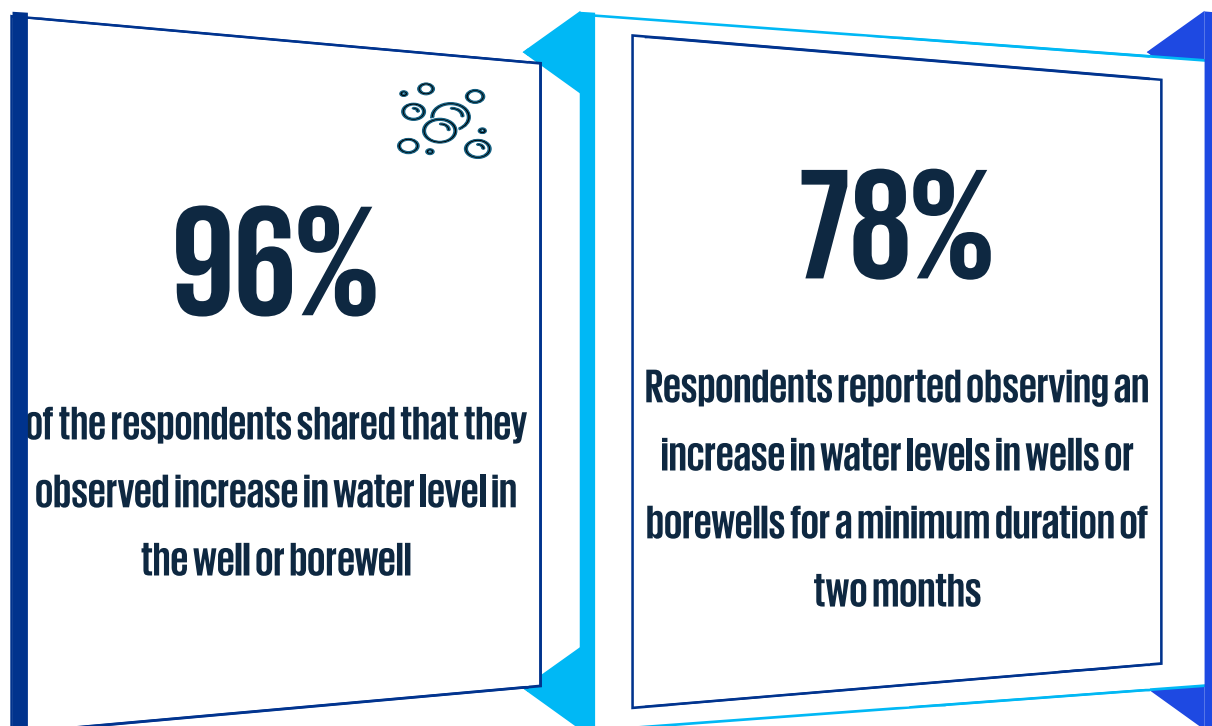
4.4. Increase in duration of water availability



Among respondents who reported an increase, 66% indicate improved water availability lasting 2–3 months, 22% for 3–4 months, and 12% for 1–2 months. This distribution points to a typical extension of water availability through a 2–3 month window, with a smaller share experiencing longer retention up to 4 months.

In Waghoshi, the increase is most commonly reported for 2–3 months (57%), followed by 3–4 months (29%), and 1–2 months (14%). The pattern indicates that a notable subset experiences longer-duration gains (up to 3–4 months), alongside a majority clustered around the 2–3 month range.

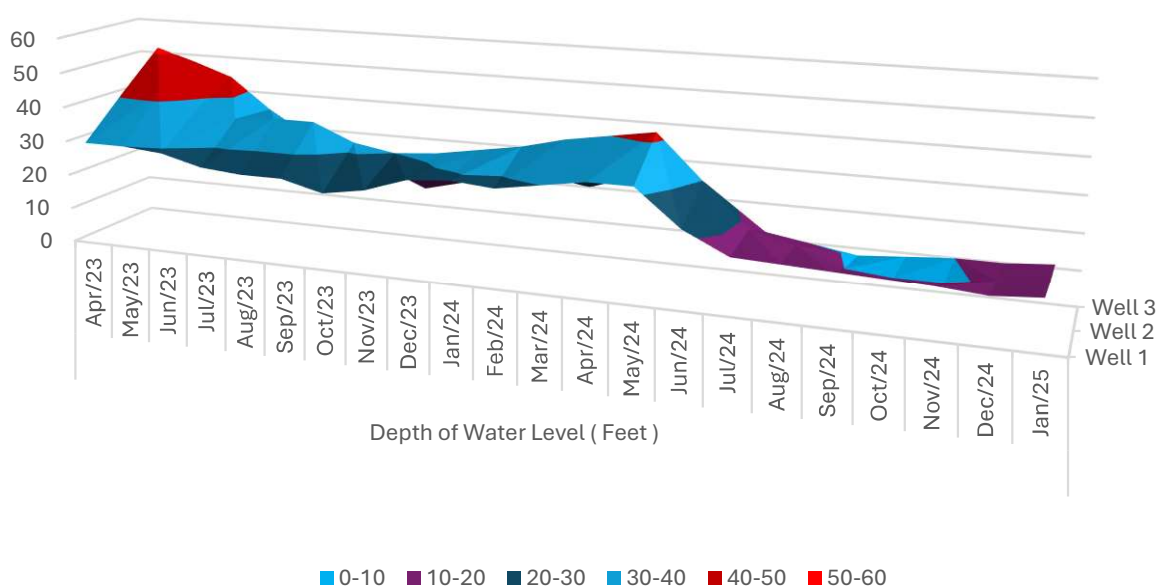
In Bhade, responses are concentrated at 2–3 months (87%), with 67% each reporting 3–4 months and 1–2 months. This suggests a more uniform improvement duration centered on 2–3 months, with fewer households reporting either shorter or longer periods.



4.5. Well monitoring data

As per the well-monitoring data provided by Shramjivi, which was cross-checked during field visits and validated through interactions with beneficiaries, the key observations and inferences are presented below.

Water levels of observation wells



Three wells were monitored by the Shramjivi in Waghoshi village details of these wells are mentioned in the following table.

Sr. No.	Well Number	Village	Total Depth of Well (Feet)	Hight From GL (Feet)	Diameter (Feet)
1	Well 1	Waghoshi	36	2.5	22
2	Well 2	Waghoshi	45	4	32
3	Well 3	Waghoshi	62	4	35

The monthly monitoring data for three wells in Waghoshi (April 2023–January 2025) indicate improved water availability in 2024–25 relative to 2023–24, interpreting lower depth values as shallower water levels. Across the wells, the average depth for the April–January window decreased by approximately 8–18 ft year-on-year. Post-monsoon (October–December) mean depths in 2024 were lower than in 2023 by about 8–21 ft, and the duration with shallow water levels (≤ 20 ft) during June–January increased from 0–4 months in 2023–24 to 7–8 months in 2024–25. Recharge, measured as the difference between May and November depths, increased in two wells (from +6 ft to +18 ft and +12 ft to +33 ft) and decreased in one well (from +33 ft to +10 ft), reflecting already shallow conditions by May–November 2024. Taken together, the observations point to enhanced recharge and extended retention through the 2024 monsoon and into the subsequent dry season near the intervention area.

Season		Depth Foot	% Change
Summer	Pre intervention	37	11%
	Post intervention	33	
Monsoon	Pre intervention	5	0%
	Post intervention	5	
Winter	Pre intervention	23	17%
	Post intervention	19	

Above table is based on respondents observations

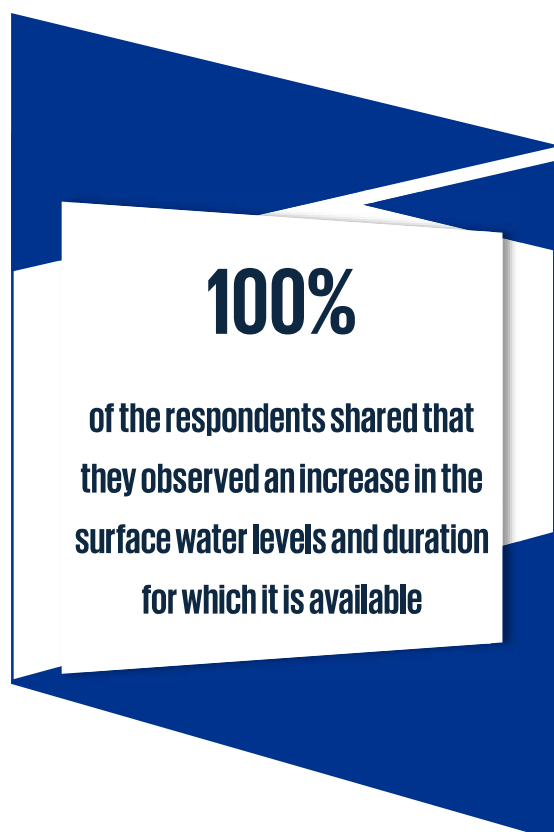
The respondents' observations indicate a positive improvement in groundwater levels following the integrated watershed management interventions. In the summer season, the depth to water reduced from 37 feet before the intervention to 33 feet after, reflecting an improvement of about 11%. Monsoon levels remained unchanged at 5 feet, which is expected since groundwater tables are naturally high during the rainy season. The most significant improvement is observed in winter, where the depth reduced from 23 feet to 19 feet, indicating a 17% rise in water availability. These seasonal improvements especially in summer and winter suggest that watershed measures have effectively enhanced infiltration, recharge, and soil moisture conservation. Overall, the change in water levels demonstrates that integrated watershed management contributed to better groundwater recharge and improved water security during critical non-monsoon months.

4.6. Impact on surface water

During the Focus Group Discussion (FGD), it was observed that in locations where excavation works were undertaken, surface water availability has improved and is sustained for a longer duration. As reported by a PRI member, surface water in these areas is now available until the months of March–

April, whereas earlier it was available only up to December. Although this surface water is not directly used by households for domestic purposes, it is utilized by some villagers for livestock maintenance.

20% of the respondents shared that they are taking water directly from the surface water or water from water harvesting structures using electric water pumps.



It was noted during FGD those who are extracting water from water harvesting structures are extracting water as per their agricultural need; there is no fixed pattern of extracting water from these structures.

4.7. Impact on agricultural productivity

Sown Area and Irrigated Area

The respondents report an average landholding size of approximately 2.4 acres. Within this context, the average net sown area increased from 2.17 acres in the pre-intervention period to 2.57 acres post-intervention, reflecting an expansion of 0.40 acres (18%). This change indicates that a portion of land that was previously left fallow or marginally utilized has been brought under cultivation following the project interventions, consistent with improved moisture availability and increased confidence in cropping decisions.

In parallel, the average irrigated area increased from 1.13 acres to 1.71 acres, registering an expansion of 0.57 acres (51%). This increase suggests improved access to and reliability of irrigation, enabling farmers to extend assured water coverage to a larger share of

their cultivated land.

As a result, the irrigated share of the net sown area increased from approximately 52% in the pre-intervention period to 67% post-intervention, representing an increase of about 15 percentage points. Taken together, these changes reflect both an expansion of cultivated area and an increase in

We used to observe that the community earlier faced water scarcity for agricultural needs during the months of March to June due to limited groundwater availability. Following the desilting activities undertaken under the project, groundwater levels have improved, and the intensity of water-related challenges during this period has reduced. – PRI Member

irrigation intensity, aligning with the project objectives of enhancing water availability and supporting agricultural productivity.

Impact on Sown Area *Unit: Acre*

Sown Area Pre-intervention	Sown Area Post-Intervention	Change	Increase in average sown area
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2.17

2.57

0.40

18%

Impact on Irrigated Area *Unit: Acre*

18%

Increase in the sown area

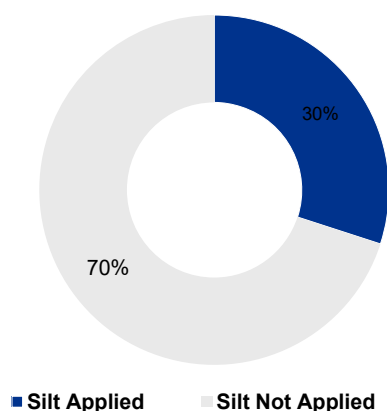
52%

Increase in irrigated area

Pre intervention	Post Intervention	Change	Increase in average irrigated area
1.13	1.71	0.57	51%

4.8. Impact of silt application

Application of Silt



Out of the total respondents, 30% reported that they had applied silt to their farmland. Upon inquiry into the areas impacted by silt application, it was observed that silt was primarily used to enhance soil fertility and, in some cases, to convert barren land into cultivable land. However, it was also noted that in areas where fresh silt had been newly applied, and cultivation was initiated, crop yields were less than 30% -40% of the average yield.

Upon further inquiry, it was noted that, on average, farmers incurred a cost of approximately INR 10,000 per acre to uniformly spread silt across their farmland.

After the application of silt, it was observed that, on average, 0.8 acres of land per farmer became newly cultivable, indicating a positive impact of silt application in expanding cultivable area.



0.8

**Acre/farmer increased the area of
cultivation**
the area of cultivation

4.9. Impact on crop productivity

Crops	Pre-Intervention - Average yield per acre	Post-Intervention - Average yield per acre	Change	Increase in average productivity
Chickpeas	4	5	1	24%
Groundnuts	6	7	1	22%
Paddy	9	11	2	21%
Pulses	4	5	1	23%
Sugarcane	53	57	3	7%
Wheat	8	9	2	22%

As per the information shared by the respondents, the crop-wise analysis indicates a consistent increase in average yield per acre across all major crops cultivated in the project area during the post-intervention period. Food and pulse crops such as chickpeas, groundnuts, pulses, wheat, and paddy recorded yield increases ranging from 21% to 24%, with absolute gains of 1–2 quintals per acre. These improvements suggest more reliable water availability during critical growth stages, contributing to better crop performance and reduced moisture stress.

Sugarcane, a water-intensive perennial crop, shows a comparatively lower percentage increase (7%), though the absolute gain of 3 quintals per acre remains meaningful given its higher baseline productivity. Overall, the yield pattern reflects broad-based improvements across crop types, aligning with enhanced irrigation access and improved soil moisture conditions. The results indicate that water-related interventions are associated with improved agricultural outcomes across both seasonal and perennial crops in the intervention area.

4.10. Impact on income from the Agriculture

Income Pre-intervention	Income Post-intervention	Change	Average Increase in %
1,17,059	1,71,765	54706	47%

-Unit: INR

As per the income reported by respondents, household income increased from ₹1,17,059 (pre-intervention) to ₹1,71,765 (post-intervention), resulting in an absolute rise of ₹54,706 and an average increase of 47%.

This significant growth indicates that the Integrated Watershed Management (IWM) interventions such as improved water availability, better crop productivity, enhanced livelihood opportunities, and reduced vulnerability to climate variability have had a positive and measurable impact on household economic well-being.

Overall, the intervention has strengthened rural livelihoods and contributed to more stable and sustainable income generation.

28% increase in income from Agriculture

As per the respondents, on average, they have observed a 28% increase in income because of the increased water availability

4.11. Impact on animal husbandry

Six percent of the respondents reported that they own livestock. Among these respondents, all indicated that increased water levels have had a positive impact on their livestock. They noted that the availability of surface water has helped improve livestock hygiene. They have reported increased income due to increased water availability

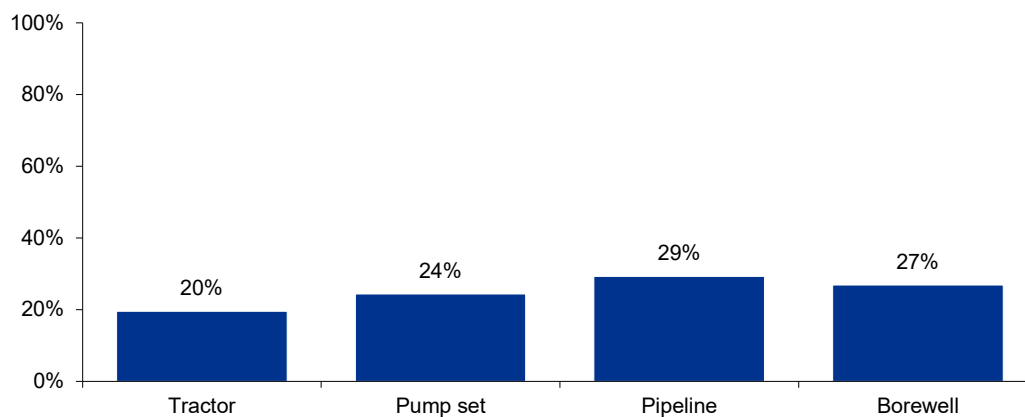
Average income from livestock monthly, Pre-intervention	Average income from livestock monthly, Post-intervention	Change	% Increase
4,000	5,000	1,000	20%

Impact on assets

About 30% of the respondents reported having created assets, which they attributed to increased water availability. During the Focus Group Discussions (FGDs), some respondents also shared their intention to invest in asset creation in the future as a result of improved water availability. However, they expressed concerns regarding fluctuating market prices of agricultural produce, which may affect their capacity to make such investments.

Farmers are chiefly investing in irrigation infrastructure (80.49%), with mechanization (19.51%) taking a secondary role consistent with improved water availability but tempered by market price uncertainty and sustainability considerations.

Assets you have created attributed water increase in the village



4.12. Impact on migration

It was observed that two to three families are no longer migrating from the villages. According to the PRI members, these families previously migrated to the Konkan division for livelihood opportunities. However, they have now stopped migrating due to the improved availability of water in their native villages.

(Refer next page for next section)

4.13. Impact on the environment

100%

of the respondents shared that they have observed an increase in green cover near the intervention site

100%

of the respondents shared that they have observed an increase in the presence of birds which was a rare occurrence near the intervention site

During the interaction with PRI members, it was noted that green cover has increased over the last year around the intervention site, mainly due to an increase in the water level of surface water. This has positively resulted in increased frequency of bird visits along the pond site, previously we rarely used to have so many birds at one place.

During interactions with Panchayati Raj Institution (PRI) members, it was observed that the green cover around the intervention site has increased notably over the past year. This improvement is primarily attributed to the rise in surface water levels, which has enhanced soil moisture and supported better vegetation growth in and around the watershed area.

PRI members further noted that the improved water availability has had a positive ecological effect, particularly evident in the increased frequency and diversity of bird visits around the pond site. Such bird activity was rarely observed earlier, whereas now multiple species are seen congregating in the

Image 1 Birds along the village pond at Waghoshi



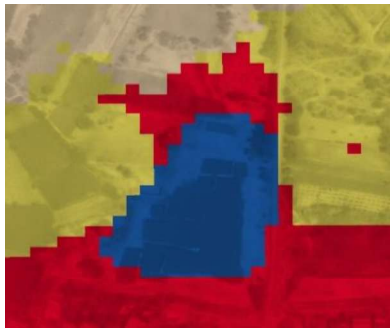
same location. This change indicates an improvement in local habitat conditions and biodiversity, reflecting the positive environmental outcomes of the watershed interventions. However, it was noted that PRI members or villagers are not aware of the species which visits the pond.

4.14. Soil test results

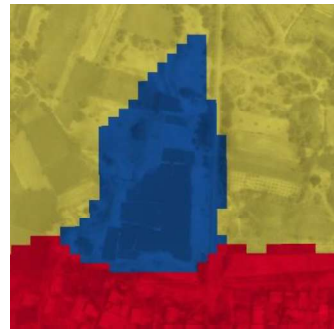
The soil test taken during field visit of the site where silt was applied shows that the soil currently has a neutral to slightly alkaline pH of 7.5, which is suitable for most crops, and an EC of 0.13 dS/m, indicating that there is no salinity risk in the field. One major positive effect observed after adding silt is the significant improvement in soil organic matter, reflected in the very high organic carbon content of 1.04%, which enhances soil structure, nutrient-holding capacity, and moisture retention. However, the report also indicates that despite the improvement in organic matter, the soil's available potassium is very low (94 kg/ha), suggesting that the silt added was likely low in potash and may have diluted the existing soil potassium levels, making K the most critical nutrient deficiency affecting crop performance. The available phosphorus level is moderate (35.84 kg/ha), meaning only maintenance doses are required rather than heavy correction. Micronutrient analysis shows that zinc, manganese, and copper are present in sufficient quantities, but iron is deficient (3.88 ppm), likely because slightly alkaline pH reduces the availability of iron in soil solution even if total iron content increases with silt addition. Overall, the soil is in good physical condition after silt application, but low potassium and iron deficiency remain the primary limiting factors for crop growth. Therefore, it is essential to prioritize potash fertilization and iron correction through foliar sprays or suitable chelated iron sources, along with maintaining moderate phosphorus and balanced nitrogen based on crop demand. Continuous use of organic inputs or compost will help sustain the improved organic carbon levels and maintain soil health in the long term.

Parameter	Unit / Recommended Range	Observed Value	Status Interpretation /
Soil pH	6.0 – 8.0	7.5	Suitable
Electrical Conductivity (EC)	dS/m (0.0 – 1.0)	0.13	Suitable
Organic Carbon (OC)	% (0.41 – 0.80)	1.04%	Very High
Available Sulfur (S)	ppm	0.87	Sufficient
Available Zinc (Zn)	ppm (0.60)	0.87	Sufficient
Available Iron (Fe)	ppm (4.50)	3.88	Low / Deficient
Available Manganese (Mn)	ppm (2.00)	12.48	Sufficient
Available Copper (Cu)	ppm (0.20)	5.26	Sufficient

4.15. Impact on the land cover



2023 Land Cover at Waghoshi village pond



2025 Land Cover at Waghoshi village pond

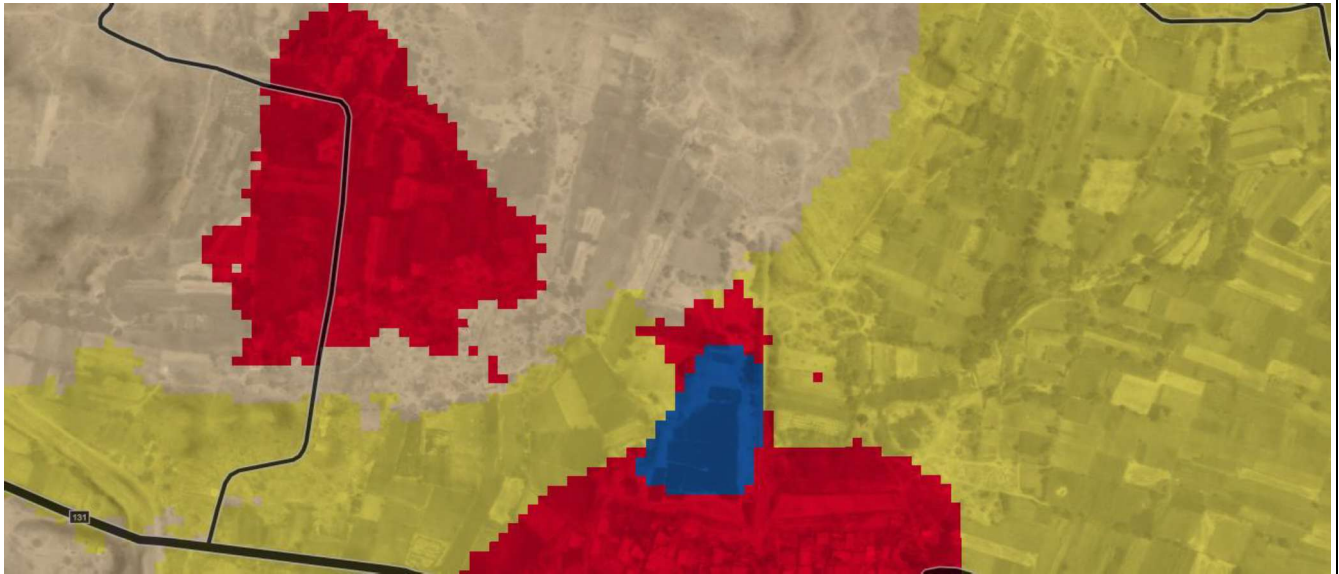
As part of the assessment, satellite imagery was used to gauge the land-cover changes in and around the intervention sites, helping to understand how project activities have influenced the surrounding landscape over time. By comparing multi-year satellite data, an attempt was made to identify variations in cropped areas, vegetation density, water availability, and other observable land-surface characteristics. This approach provides an evidence-based perspective on how interventions particularly water conservation structures and improved agricultural practices have contributed to shifts in land use near the project locations. Although satellite-derived insights offer valuable trends, the analysis also acknowledges the inherent limitations of remote sensing tools, which can influence the precision of land-cover estimates. As per the Sentinel-2 Land use/Land cover data by Esri, an increase of 4% is observed in the water category, in Waghoshi village pond inferring the positive outcome from project activities.

Legend	
	Built up area
	Crop Cover
	Water Bodies

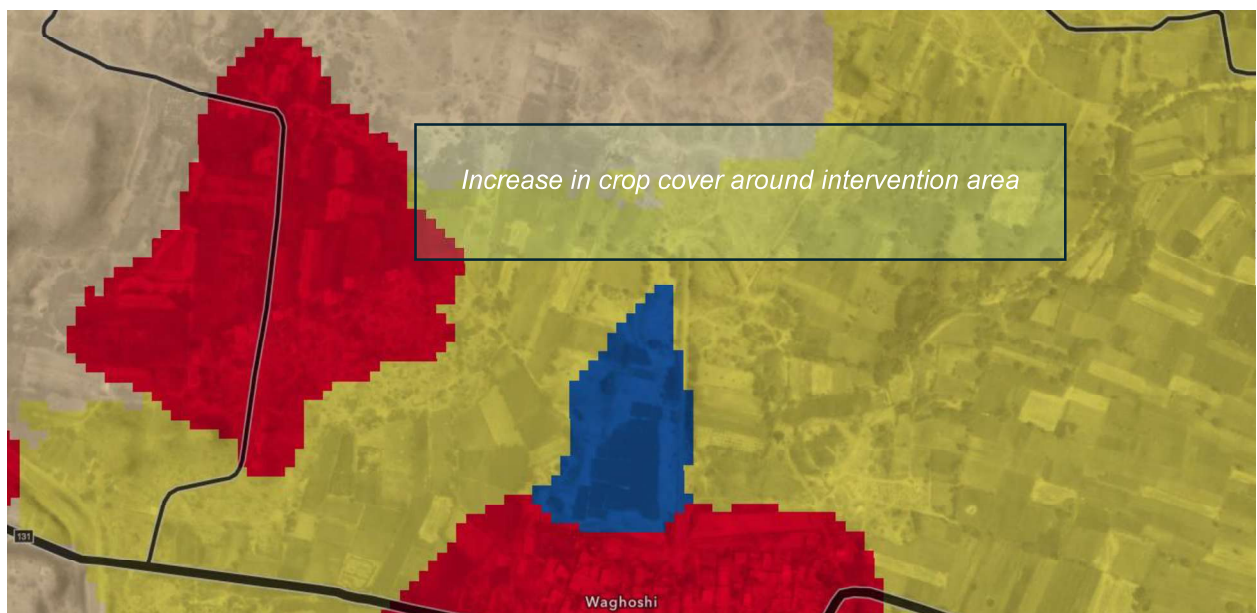
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Change in Crop cover

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2023 Land Cover at Waghoshi village pond



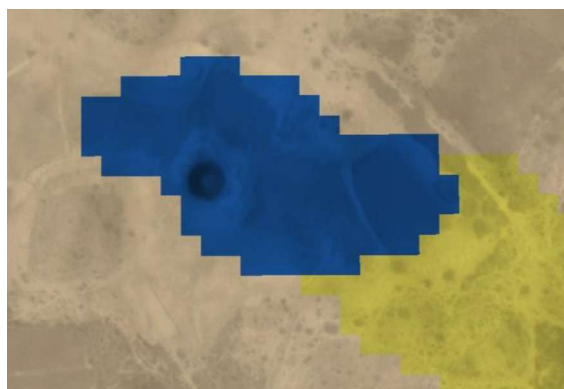
2025 Land Cover at Waghoshi village pond

Cropland area increased by 3%, while range/degraded land reduced by 2.7%. This shift suggests that nutrient-rich silt applied on farms improved soil fertility and moisture retention, enabling farmers to bring previously uncultivated or degraded areas under productive agriculture. Together, these trends indicate that desilting and silt application have strengthened both the ecological condition and the farming potential of the village landscape.

In Bhade village, a 2% increase in water availability has been observed following the desilting work carried out at the local pond. According to PRI members, the intervention has significantly improved both surface water storage and groundwater levels, and they have expressed satisfaction with the outcomes. Several beneficiaries also shared that they have noticed a meaningful and satisfactory rise in groundwater in their wells and borewells after the desilting activity.



2023 Village pond in Bhade Village



2025 Village pond in Bhade Village

4.16. Soil test results

The soil test indicates that the field has a neutral pH (7.5) and very low salt content (EC 0.13 dS/m), suggesting that the soil environment is physically suitable for most crops and free from salinity issues. The organic carbon level is very high (1.04%), which is beneficial for soil structure, moisture retention, and microbial activity. However, such high OC may slow the mineralization of nitrogen, meaning crops might still require timely nitrogen supplementation to meet nutrient demand.

From the major nutrients, phosphorus is at a medium level (35.84 kg/ha), but potassium is critically low (94 kg/ha), making it the most limiting nutrient in the current soil condition. Potassium deficiency can affect root strength, drought tolerance, grain filling, and overall yield potential. Among micronutrients, iron is deficient (3.88 ppm), which increases the risk of chlorosis in sensitive crops, especially because slightly alkaline soils reduce Fe availability. Other micronutrients such as zinc, manganese, and copper are sufficient, meaning no immediate corrective measures are required for those.

Regarding the impact of silt application, adding canal or river silt can help improve soil physical properties such as water infiltration, moisture storage, and texture. Silt often contributes small amounts of potassium and micronutrients, but in the case of your field, the K deficiency is severe enough that silt alone will not correct the problem. Similarly, while silt may add iron oxides, the soil's pH will still limit iron availability, so an Fe amendment (like ferrous sulphate) remains necessary. Overall, silt is beneficial as a physical soil improver, but it should be considered supplementary rather than a replacement for required fertilizer corrections.

Parameter	Normal Range	Observed Value	Inference
Soil pH	6.00 – 8.00	7.5	Suitable
EC (Electrical Conductivity)	0.00 – 1.00 dS/m	0.13	Suitable
Organic Carbon (OC)	0.41 – 0.80 %	1.04%	Very High
Available Nitrogen (N)			Not Provided
Available Phosphorus (P)	31 – 65 kg/ha	35.84	Medium
Available Potassium (K)	180 – 300 kg/ha	94	Very Low

Parameter	Normal Range	Observed Value	Inference
Available Sulphur (S)		0.87 ppm	Sufficient
Available Zinc (Zn)	0.60 ppm	0.87	Sufficient
Available Iron (Fe)	4.50 ppm	3.88	Deficient
Available Manganese (Mn)	2.00 ppm	12.48	Sufficient
Available Copper (Cu)	0.20 ppm	5.26	Sufficient

4.17. Case Study

As a PRI member of Waghoshi Village, I have witnessed firsthand how climate-related challenges impact our farmers. In 2022, our village experienced intense and unexpected rainfall, which caused severe flooding on my farmland. Nearly half an acre of my field was submerged, resulting in heavy soil erosion and significant crop loss. This incident highlighted the urgent need for stronger water management and soil protection measures in our community.

Fortunately, the desilting work carried out by Shramjivi brought a major positive change. The rejuvenation of the village pond and the improved bunding around it created better water flow regulation and stronger protection for surrounding farmlands. This intervention not only increased the pond's storage capacity but also acted as a safeguard against overflow and run-off during heavy rains.

In the last agricultural season, I felt a noticeable sense of security and stability. The risk of flooding on my land has reduced significantly, and the soil remains intact even during periods of high rainfall. Thanks to the combined efforts of Shramjivi and the pond desilting project, our village now experiences improved water conservation, better groundwater recharge, and safer farmlands. This initiative has strengthened both our agricultural resilience and our confidence in the future.

05

Measuring the Social Return

5. MEASURING THE SOCIAL RETURN

As explained in Chapter 2, this report has used two evaluation frameworks which are OECD-DAC and SRoI. Generally, OECD-DAC helps in gaining a qualitative understanding of the impact. On the other hand, SRoI helps organizations in evaluating changes which are being created by measuring social, environmental, and economic outcomes and providing monetary values to represent them. SRoI also helps in understanding the total value generated for every rupee invested for interventions.

There are two types of SRoI:

- Evaluative, which is conducted retrospectively and based on actual outcomes that have already taken place.
- Forecast, which predicts how much social value will be created if the activities meet their intended outcome.

For this study, both evaluative as well as forecasting SRoI has been considered. SRoI primarily involves six stages which are as follows:

Stage 1: Establishing Scope and identifying key stakeholders

Stage 2: Mapping outcomes

Stage 3: Evidencing outcomes and giving them a value

Stage 4: Establishing impact

Stage 5: Calculating the SRoI

Stage 6: Reporting

Stage 1 and Stage 2 have been discussed in-depth in Chapter 2. Further stages have been elaborated in the ensuing sections.

5.1. Evidencing Outcomes

After creating the impact map, outcome indicators were developed based on interactions with beneficiaries and other key stakeholders such as PRI members and implementation teams. Evidence of these outcomes was gathered through both primary and secondary data sources.

Quantity of Change: The quantity of change for the impact map was calculated by extrapolating responses from the sample to the entire beneficiary population. Based on the data collected, a proportionate percentage of total beneficiaries was estimated to represent the overall impact.

The details about the evidence indicators for the outcomes and the quantity of change against each indicator are provided below:

Duration of Outcome:

Some outcomes are long-term, lasting throughout a beneficiary's life, while others persist only as long as the intervention continues. For this SRoI analysis, impacts from infrastructure-related activities are considered for up to 5 years, whereas intangible interventions such as training are assumed to have an impact for 3 years. These timelines are based on the following assumptions:

- Water resource development creates lasting effects on groundwater and surface water levels, with corresponding economic and social benefits

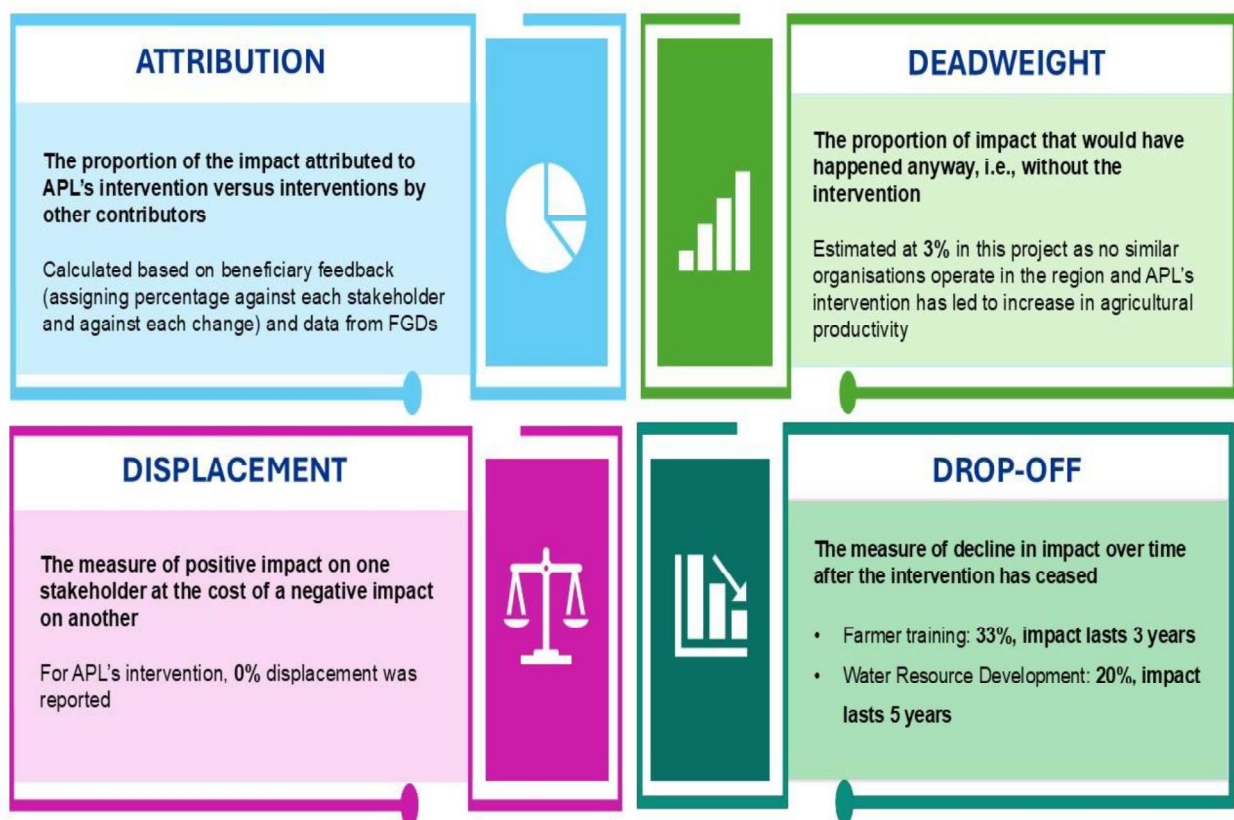
- Training-based interventions require periodic updates due to technological, market, and climate changes
- Based on the nature of interventions and evolving income-generating activities, beneficiary and stakeholder contributions will eventually outweigh the impacts due to initial support from APL

Financial Proxy and Value of Financial Proxy:

To assign value to outcomes, financial proxies were used, following standard practice of using market prices where possible. For intangible outcomes without direct market value, the closest comparable proxy was identified. Refer to the table for outcome-wise details.

5.2. Establishing Impacts

An important part of SROI is 'measuring impact' by accounting for attribution, deadweight, displacement, and drop-off.



5.3. Calculating Impact

$$\text{Impact} = \text{Quantity of outcome} * \text{Financial Proxy Value} * (\text{Attribution} - \text{Deadweight} - \text{Displacement} - \text{Drop-off for each year})$$

SROI is a ratio of cumulative present value for each outcome against the total investment in the project i.e., **SROI = Total NPV of social value / Total investment**

Total Input Value: For SROI calculation, inputs from APL, beneficiaries, and other stakeholders were considered, assuming all contributions collectively created the observed impact. Without any one of these inputs, the current outcomes would not have been achieved. Inputs included financial contributions from APL, beneficiaries, and stakeholders, as well as the time invested by beneficiaries in training and exposure activities. Financial values were provided by APL, while non-financial inputs were estimated in consultation with the APL CSR team.

The below table represents the total cumulative investments from all the stakeholders towards the project from the time period 2024- 2025:

Input Type	Input description	Total Input value(INR)
Financial inputs	CSR Funding from APL	7,497,963
Total		7,497,963

Net Present Value: The Impact Value is adjusted to reflect the Net Present Value (NPV) of the projected outcome values. This is to reflect the present-day value of benefits projected into the future.

A discount rate of 5% has been used for the NPV calculations.

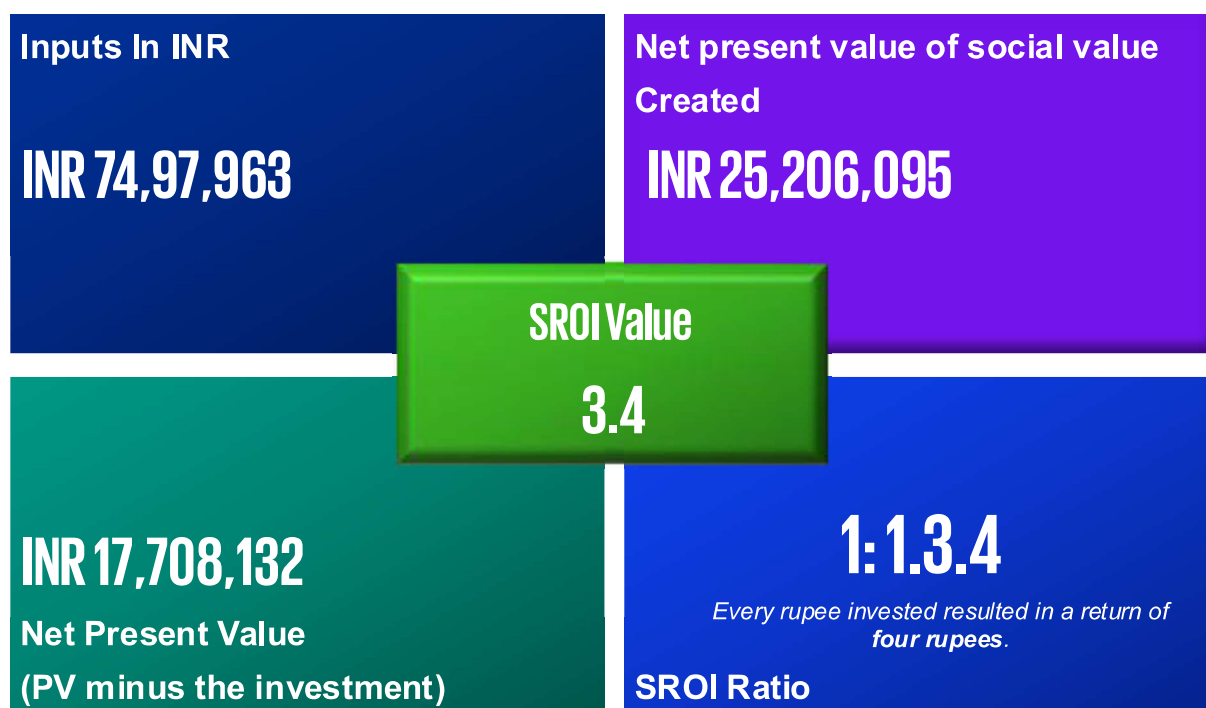
$$\text{SROI} = \{\text{Total present value of impact} / \text{Total input}\}$$

The below table depicts the NPV evaluated as of 2025 and forecasted for 2030 (considering the duration period of 5 years for each outcome):

5.4. SROI Results

The SROI for this analysis- evaluative SROI (as on 2025) and evaluative cum forecast SROI (as on 2030) - is derived from dividing the total present value of the impacts by the total input value of the investment. This is considered because the beneficiaries who have received the support in 2025 would realise the impact for the next 5 years i.e., by 2030.

The below table shows the SROI Value and the SROI Ratio before sensitivity analysis:



For every INR 1 invested, the programme has generated social impact of INR 3.4

Sensitivity Analysis: Our calculations to arrive at the results provided in this report are relied on a variety of primary and secondary data, but the beneficiary data introduced a higher level of uncertainty. This survey was utilized to estimate the attribution, additionality of APL interventions to specific outcomes, and the duration of time the impact would last.

Sensitivity Analysis was used to test variables and assumptions to ensure that conservative estimates have been used in arriving at the SROI. For each impact area, we tested the impact of using one standard deviation above and below the average response to attribution survey questions.

With sensitivity computation, the value of the APL program can then be stated in a range.

For every INR 1 invested, the social value generated is between INR 2.8 and INR 3.8.

Sr. No.	Base case Parameters	Base case SROI	Test case Parameters (Min-Max)	Test case SROI
1	Deadweight	3.4	Deadweight is 0%	3.40
			Deadweight is 8%	3.12
2	Displacement		Displacement 0%	3.40

Sr. No.	Base case Parameters	Base case SROI	Test case Parameters (Min-Max)	Test case SROI
3	Attribution		Displacement is 5%	3.23
			Attribution is 80%	3.18
			Attribution is 75%	2.81
			Drop-off is 3 years	2.70
4	Drop-off		Drop-off is 5 years	3.8

Limitations & assumptions for the SROI study

- The study is limited to the sample of beneficiaries interacted with on-ground during field visits.
- The survey conducted with sample beneficiaries is subjective in nature.
- The study is limited to the recall of the participants in the study.
- The financial proxies are limited to publicly available resources. The financial proxies are representative and based on professional judgement, but it may not be reflective of actual costs incurred due to several considerations. (Refer to Appendix B for details of financial proxies)
- The deadweight, displacement, drop off values are derived from the responses from the stakeholders.
- While information obtained from the public domain or external sources has not been verified for authenticity, accuracy, or completeness, we have obtained information, as far as possible, from sources generally considered to be reliable. However, it must be noted that some of these websites/third party sources may not be updated regularly. We assume no responsibility for the reliability and credibility of such information.

04

Way Forward

6. WAY FORWARD

The insights generated through Focus Group Discussions (FGDs) and Key Informant Interviews (KIs) have provided a comprehensive understanding of the community's needs, existing gaps, and the evolving dynamics of water management and livelihood practices in the project geography. These interactions offered valuable perspectives from diverse stakeholders, including farmers, women, Water User Associations (WUAs), and Panchayat representatives, highlighting both the achievements and the persistent challenges that influence development outcomes in the region.

Key Observations	Recommendations
Low participation of women; decisions are mostly made by men.	Introduce gender-focused training and ensure women's involvement across project stages.
Higher output due to improved irrigation, but a shift toward water-intensive crops like sugarcane.	Promote less water-intensive crops and establish community water-use guidelines.
WUAs inactive; members unclear about roles.	Strengthen WUA capacity through water budgeting and crop planning.
PRI members reported that scaling of Nala Deepening and winding can be done	Detailed stakeholder consultation shall be carried out for the scaling of the project

7. Annexures

Financial Proxies used for SRoI

Outputs	What changes?	How much?	Monetary valuation
Construction and refurbishment of Check dams/ Water Harvesting Structures	Creation of sustainable water supply through increment in availability and accessibility of water	Increase in water harvesting capacity (Quantum of Water Potential created or Water Harvested in Cubic Metre)	2.00
		Increased availability of water for irrigation - surface water from WHS (Number of farmers x Avg increase in Irrigated land)	800.00
		Increased availability of water in wells / borewells (number of farmers/community members x Avg increase in availability of water in months)	400.00
	Increased agriculture production due to increment in availability of water	Increase in availability of Net Sown Area (in Ha) (Number of farmers x Avg increase per farmer)	35535.00
		Increase in agriculture produce (Number of farmers x Avg increase in yield in the year)	2369.00
Availability of potable water for household consumption due to increased Ground water level and WHS	Increased quality an accessibility to potable water leading to improved health of community members	Reduction in Drudgery for members of household (number of households x Avg person-hours saved)	585
		Reduction in water borne diseases (number of households x % respondents indicating improvement in health)	661

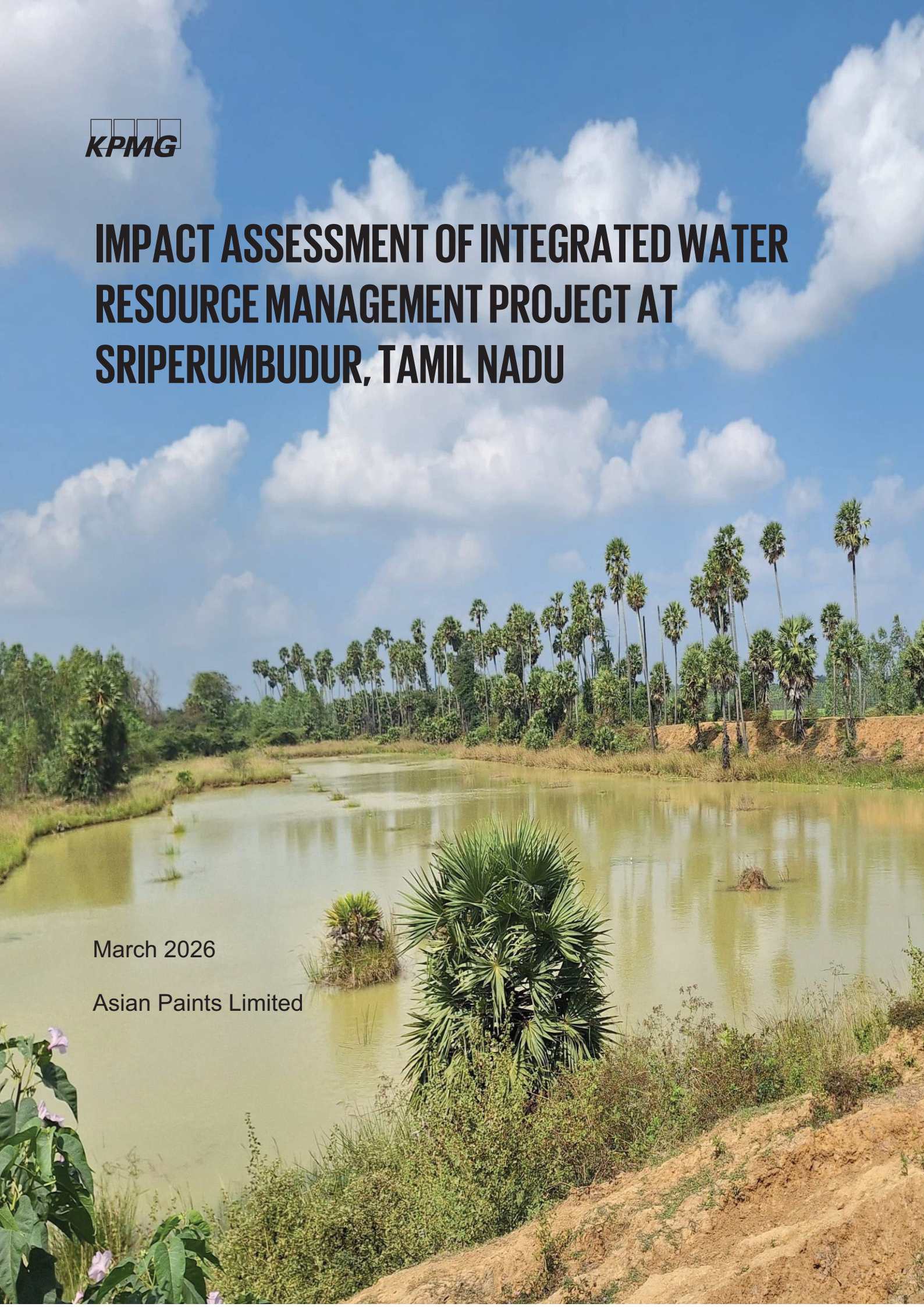
Outputs	What changes?	How much?	Monetary valuation
Creation of employment opportunities	Availability of increased labour opportunities locally (own or nearby villages) due to reduced migration	Reduction in migration (seasonal for labour work) (number of members reporting instances of reduced migration x days of work in WHS MGNREGA and/or agriculture)	312.00
Establishing village-level institutions	Community led governance of water resources at village level	Formation of water committees in villages and creation of bylaws for water management in village (Number of village water user groups formed)	5000.00
	Effective Operations and Management of water resources at village level	Efficient water management in village and repair-maintenance management (Number of water bodies created x Cost of manager)	28080.00
		Improved sensitization towards child's education (Number of respondents reporting increased spend on child's education)	2067.36
Extended impact on the environment	Increased green cover due to access to water for extended period/ throughout the year due to WHS	Increased green cover canal/ river due to WHS construction for extended period/ throughout the year (in Metres)	0.58
	Improved soil health due to water availability	Farmers using ploughing to dig lower layer of soil	700.00
	Improved bio-diversity due to availability of water for extended period / throughout the year... (birds/animals from nearby area using the water during summer)	Community members enjoying view of more birds and animals with pleasant environment	20.00



IMPACT ASSESSMENT OF INTEGRATED WATER RESOURCE MANAGEMENT PROJECT AT SRIPERUMBUDUR, TAMIL NADU

March 2026

Asian Paints Limited





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Strictly Private and Confidential

Mr. Amit Kumar Singh
Vice-President, Corporate affairs & CSR
Asian Paints Limited
Mumbai, Maharashtra– 400055
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24 March 2026

Subject: Final report for Impact assessment of CSR Projects

Dear Mr. Amit Kumar,

We appreciate the opportunity to assist Asian Paints Limited in providing **Impact assessment of CSR Projects** related services.

Please find enclosed our final report, which has been prepared in accordance with the scope and terms stated in our engagement letter dated 3rd February 2026. With this deliverable, we have completed our obligations as stated in our engagement letter.

It has been our privilege to have this opportunity to work with you, and we look forward to continuing our relationship.

Yours sincerely

Signed by:

J. J. Joshi
67B595C3ADEC43E...
Partner,
KPMG Assurance and Consulting Services LLP

Disclaimer

- *Our report has been prepared solely for Asian Paints Limited. KPMG does not accept or assume any liability, responsibility, or duty of care for any use of or reliance on this report by anyone, other than our Client, to the extent agreed in the Agreement.*
- *Impact assessment is limited to the projects allocated by Asian Paints Limited*
- *OECD DAC and SROI framework has been used in preparing the report as detailed herein. No professional assurance standards ex. ISAE, SSAE etc. have been applied while preparing this report and accordingly the rigors applicable under such standards are not applicable for the scope covered by our report.*
- *Procedures, analysis and recommendations, if any, are advisory in nature basis the information collected from various sources both publicly and those provided by the client.*
- *Our observations represent our understanding and interpretation of the facts based on reporting of beneficiaries and stakeholders.*
- *Our report, by its very nature, may involve numerous assumptions, inherent risks, and uncertainties, both general and specific. The conclusions drawn shall be based on the information available with us at the time of preparing the report.*
- *We shall not perform an audit and shall not express an opinion or any other form of assurance. Further, comments in our report are not and shall not be intended, nor should they be interpreted to be legal advice or opinion. Client shall be fully and solely responsible for applying independent judgment, with respect to the findings included in the report, to make appropriate decisions in relation to future course of action, if any. We shall not take responsibility for the consequences resulting from decisions based on information included in the report.*
- *While information obtained from the public domain or external sources has not been verified for authenticity, accuracy, or completeness, we have obtained information, as far as possible, from sources generally considered to be reliable. However, it must be noted that some of these websites/third party sources may not be updated regularly. We assume no responsibility for the reliability and credibility of such information.*
- *Our work shall be limited to the specific procedures described in this Engagement Letter and shall be based only on the information and analysis of the data obtained through interviews of beneficiaries supported under the programme, selected as sample respondents and discussions with APL team and stakeholders of the programme. Accordingly, changes in circumstances or information available after the review could affect the findings outlined in our report.*
- *In no circumstances shall we be liable, for any loss or damage, of whatsoever nature, arising from information material to our work being withheld or concealed from us or misrepresented to us by any person to whom we make information requests.*
- *In accordance with its policy, KPMG advises that neither it nor any of its partner, director or employee undertakes any responsibility arising in any way whatsoever, to any person other than Client in respect of the matters dealt with in this report, including any errors or omissions therein, arising through negligence or otherwise, howsoever caused.*
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List of Abbreviations

APL	Asian Paints Limited	mS/cm	Milli Siemens per centimeters
ATMA	Agricultural Technology Management Agency	MSP	Minimum Support Price
BCM	Billion Cubic Meters	NITI	National Institution for Transforming India
BIS	Bureau of Indian Standards	NMAET	National Mission on Agricultural Extension and Technology
BOD	Biochemical Oxygen Demand	NPV	Net Present Value
CGWB	Central Ground Water Board	O&M	Operation and Maintenance
CGWB	Central Ground Water Board	OC	Organic Carbon
CPCB	Central Pollution Control Board	OECD-DAC	Organisation for Economic Co-operation and Development-Development Assistance Committee
CSR	Corporate Social Responsibility	OOPE	Out-of-Pocket Expenditure
CWC	Central Water Commission	pH	Potential of Hydrogen
dS/m	Deci Siemens per Meter	ppm	Parts Per Million
EC	Electrical Conductivity	PRI	Panchayati Raj Institution
FGD	Focus Group Discussion	qtl	quintal
FIG/FI	Farmer Interest Group	RFP	Request for Proposal
FPO	Farmer Producer Organization	ROI	Return on Investment
ft	Feet	SAR	Sodium Adsorption Ratio
HH	Household	SDG	Sustainable Development Goal
INR	Indian Rupees	SEZ	Special Economic Zone
IS	Indian Standards	SHG	Self-Help Group
kg/ha	Kilogram per Hectare	SRI	System of Rice Intensification
kg/ha	Kilograms per hectare	SRoI	Social Return on Investment
KII	Key Informant Interview	TDS	Total Dissolved Solids
KPI	Key Performance Indicator	TOC	Theory of Change
LPCD	Litres Per Capita Per Day	tons/acre	Tons per acre
me/L	Milliequivalents per litre	VI	Village Institution
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act	WASH	Water, Sanitation and Hygiene
MIDC	Maharashtra Industrial Development Corporation	WHS	Water Harvesting Structure
MPCE	Monthly Per Capita Expenditure	WUA	Water User Association

Contents

1. Introduction	7
1.1. Background	7
1.2 Asian Paint Limited	8
1.3 About the Study.....	8
1.4 About the project	9
1.5 About implementing partner	9
1.6 Project Geography	10
2.1 Our Approach.....	12
2.1.1 OECD-DAC	12
2.1.2 Social Return on Investment (SROI)	15
2.2 Detailed Methodology	17
3. Analysis and Findings	27
3.1 Demographic Profile	27
3.1.1 Age.....	27
3.1.2 Education	27
3.1.3 Source of Income	27
3.1.4 Income Profile.....	28
3.1.5 Agricultural Landholding Pattern	28
3.2 Support received from the intervention	30
3.2 Water Harvesting Structure.....	30
3.2.1 Impact on availability of water	30
3.2.2. Impact on Livestock	32
3.2.3. Impact on farming practices	33
3.3 Water Governance	34
3.3.1 Member of WUA Group	34
3.4 Agriculture and Livelihood	34
3.4.1 Impact on agricultural land	34
3.4.2 Impact on mode of irrigation	35
3.4.3 Impact on source of irrigation	35
3.4.4 Impact on Agricultural Yield	36
3.4.5 Impact on Agricultural Income.....	36
3.4.6 Impact on Asset Creation.....	37
3.4.7 Impact on Water Quality	37
3.4.8 Impact on Environment	38
3.4.9 Other Impacts	39
3.4.10 Case Study.....	39
4. Measuring the Social Return.....	41
5.1 Evidencing Outcomes.....	41
4.2 Establishing Impacts	42

4.3 Calculating Impact.....	43
5. Way Forward	47

1.Executive Summary

Water scarcity continues to be a critical developmental challenge in semi-arid regions of India, particularly in fast-urbanizing and agriculturally dependent regions such as Sriperumbudur in Kancheepuram district, Tamil Nadu. The region's hard-rock aquifers, erratic monsoon dependency, and declining groundwater tables have historically constrained irrigation cycles and rural livelihoods.

Asian Paints Limited has imbibed the philosophy of transformation in its DNA and has consistently reinvented the industry. Aligning with this approach, the company's CSR efforts are focused on achieving holistic and sustainable community development. There is a strong emphasis on fostering robust trust-based relationships with communities located in the vicinity of its plants and people in the unorganized sector. These inclusive development initiatives are concentrated on health and hygiene, water conservation, skill development, and disaster management.

To address the water-related challenges, Asian Paints Limited (APL), in partnership with the National Agro Foundation (NAF), implemented the Integrated Water Resource Management (IWRM) Project for FY 2023–24, focusing on supply-side water conservation and livelihood enhancement through the rejuvenation of water bodies. The project was executed in select villages of Sriperumbudur in Kancheepuram District of Tamil Nadu. The project was designed to improve water security, enhance farm productivity, and strengthen community stewardship of natural resources.

KPMG conducted the impact assessment for interventions undertaken in FY 2023–24, drawing on the OECD-DAC evaluation criteria and the Social Return on Investment (SROI) framework to measure outcomes. A mixed-method approach was adopted, combining quantitative data analysis with qualitative insights to ensure a holistic evaluation. For this study, KPMG interacted in three villages in Sriperumbudur, including direct beneficiaries and indirect beneficiaries, which includes farmers, community members, PRI members and staff of the implementing agency.

Key Output Numbers

0.78 lakh KL
Water potential
created

2,767
Beneficiaries covered

Key highlights from the impact assessment study



Increase in water level in wells/borewells

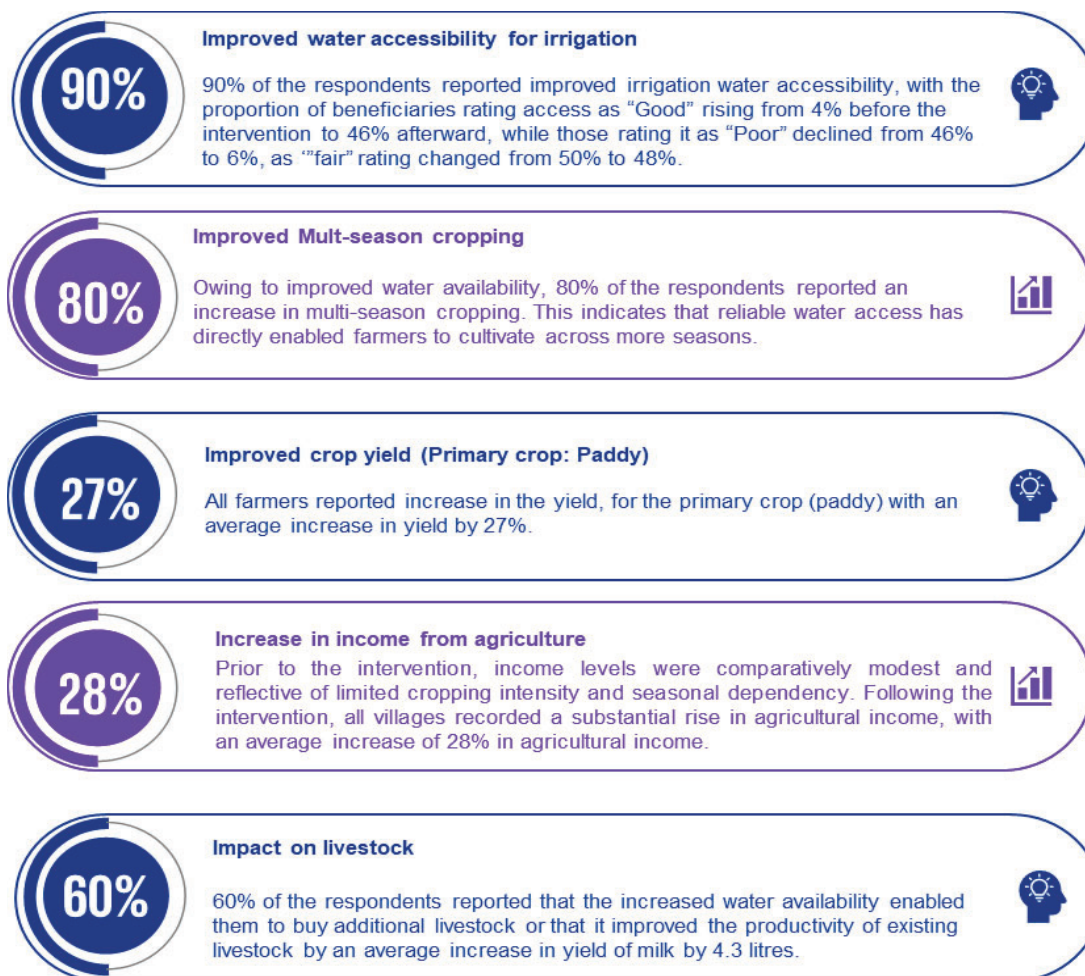
96% of the respondents reported an increase in groundwater levels, with winter water depth improving from 60 ft to 45 ft (a rise of approximately 15 ft), summer levels improving from 252 ft to 143 ft (a rise of 109 ft), and monsoon levels changing from 20 ft to 15 ft.



Improved water availability for irrigation purpose post-monsoon

The availability of water has extended for 2 to 3 months for 75% of households, while the remaining 25% reported availability for 1 to 2 months, indicating enhanced water retention and sustained irrigation support beyond the monsoon season.





Findings basis IRECS framework

I- Impact

The rejuvenated waterbodies retained surface water for a longer period. Households have improved access to water post-intervention, and groundwater levels have strengthened due to better recharge. Villages saw a marked rise in agricultural productivity.

R- Relevance

- 100% of respondents primarily depended on agriculture for livelihoods and faced monsoon-driven uncertainties.
- The rejuvenated lakes and pond addressed the community's long-standing need for reliable water access by improving surface water storage and groundwater recharge.

E- Efficiency

- Project completed within set timelines

C- Coherence

- Project Alignment with National Priorities-
- Directly converges with Jal Shakti Abhiyan and 'Catch the Rain' campaign of Ministry of Jal Shakti.
- Project aligns with the SDG 6, SDG 1, SDG 2, SDG 15

S- Sustainability

- 100% of respondents shared that this project has brought a positive change in their life
- 72% of farmers were members of Water User Associations (WUAs), though active governance remains limited. Maintenance is currently panchayat-led. Continued capacity building is essential.

SROI – Results

1

Total Impact Value

INR 7,59,88,109

2

SROI Ratio

1:4.25

3

Based on the sensitivity computation, the APL program demonstrates a social return ranging

between INR 3.73 and INR 4.48 for every INR 1 invested

Stakeholder interactions across the intervention villages surfaced several critical insights that shape the programme's future direction. Despite a marked improvement in water availability and extended irrigation cycles following the rejuvenation of lakes and pond, farmers continue to predominantly cultivate paddy across seasons, with very limited diversification into less water-intensive crops. This pattern indicates that while water security has improved, agronomic decision-making remains conservative, and driven by familiarity. The continued reliance on paddy (high-water-demand crop) could lead to unsustainable pressures on local aquifers and shared surface-water systems, especially under variable rainfall years. Women's participation in water governance and agricultural planning was observed to be consistently low, with decision-making spaces largely dominated by men. Their limited involvement reduces the inclusivity of programme benefits and constrains opportunities for decision-making. While Water User Associations (WUAs) have been formed, they remain largely inactive, with members expressing limited clarity regarding their roles, responsibilities, and long-term expectations around asset maintenance. As a result, the sustainability of the newly created or rejuvenated water structures continues to rely heavily on Panchayat-led efforts. This gap highlights the need for strengthened institutional mechanisms and local leadership to ensure that community ownership is truly embedded.

Way forward

Going forward, it is essential to integrate gender-inclusive approaches that encourage meaningful participation of women in water governance. Tailored capacity-building sessions, leadership training, and women-led committees can significantly strengthen decision-making and foster a more balanced distribution of benefits. To prevent long-term stress on water resources, the programme should actively promote crop diversification, introducing farmers to less water-intensive alternatives and demonstrating the economic, soil-health, and climate-resilience benefits of diversified cropping systems. Extension services should emphasize efficient irrigation techniques, such as localized irrigation, to curb excess withdrawals and extend water availability deeper into the agricultural cycle. Strengthening WUAs is essential, and this can be achieved through structured training on water budgeting, crop planning, maintenance protocols, and transparent resource-use guidelines. A renewed focus on governance practices will help transition WUAs from nominal committees to active village institutions capable of stewardship and accountability.

2. Introduction

This chapter consists of an overview of the water stress in Indian context and Asian Paints Ltd.'s CSR efforts to address the issue. It provides an overview of the project, implementing partners, project geographies, scope, and purpose of the study.

2.1. Background

Water security has reached a critical inflection point in India because of rapid development, population pressure and climate volatility. As of 2025, India sustains approximately 18% of the global population with only 4% of the world's freshwater resources.¹ The NITI Aayog Annual Report (2024-25) warned that the country's average per capita water availability is projected to decline to 1,341 cubic meters by late 2025, pushing the nation further into the "water-stressed" category (threshold < 1,700 m³) and nearing the "water-scarcity" limit of 1,000 m³.² With abundant flow in Ganga and Brahmaputra basins and much lower availability in west and south-western basins, regional disparities exist that make proper management of local demand essential.

India's water budget remains heavily dependent on a fluctuating monsoon and there are both quantity and quality concerns with groundwater. According to the Dynamic Ground Water Resource Assessment (2024) published by Central Ground Water Board (CGWB), the total annual groundwater recharge is estimated at 446.90 Billion Cubic Meters (BCM), with an annual extractable resource of 406.19 BCM. While the average extraction rate is 60.47%, regional disparities are severe. Out of a total of 6,746 assessment units, approximately 11.1% of assessment units, primarily in Punjab, Haryana, Rajasthan, and Delhi, are classified as "over-exploited", where extraction exceeds natural replenishment.³ On groundwater quality, CGWB's Annual Ground Water Quality Report 2024 highlights localized exceedances of nitrate, fluoride, and arsenic in shallow aquifers across different states, varying seasonally with recharge and agricultural inputs.⁴ The report mentions Triple Contamination Challenge in India's groundwater, referring to the three most widespread contamination threats, each stemming from different sources- nitrate (anthropogenic), fluoride (geogenic) and salinity/electrical conductivity (EC).

Surface water pollution is another important concern. Around 70% of India's surface water is contaminated, ranking the country 120th out of 122 on the global Water Quality Index. Central Pollution Control Board's latest report titled "Polluted River Stretches for Restoration of Water Quality" identifies 150 polluted stretches nationally, including 35 Priority-1 segments where Biochemical Oxygen Demand (BOD) is greater than 30 mg/L. Wastewater from various sources, intensive agriculture, industrial activities, and untreated urban runoff contribute to this pollution, compromising the health of both humans and aquatic ecosystems.

Climate change has added to the risk of water stress. In 2024-25, India experienced a 55% increase in record heatwaves, accelerating evapotranspiration and increasing the demand for irrigation which consumes over 80% of freshwater in rural areas.⁵ Because of climate change, the monsoon pattern has become erratic, characterised by long dry spells followed by intense cloudbursts. When this happens, the natural soil infiltration is affected which results in flash floods and reduced aquifer recharge.

In this challenging water landscape, the importance of watershed management becomes apparent. Watershed management is not merely a focus on water projects but involves a holistic approach to land-use practices, afforestation, and soil and water conservation. Watershed approaches work at the hydrological unit where supply, demand and quality intersect. Steps like planting trees and protecting stream banks, building small check-dams and farm ponds, contouring fields to slow water, using drip/sprinkler irrigation and involving local

¹ United Nations World Water Development Report 2024, sourced at <https://unesdoc.unesco.org/ark:/48223/pf0000388948>

² NITI Aayog Annual Report 2024-25 [NITI AAYOG, India | Annual Report 2024-25](#)

³ [Press Release: Press Information Bureau](#)

⁴ CGWB Annual Ground Water Quality Report 2025 [CGWB - Publications Repository](#)

⁵ [India's Water Crisis: Why Climate-Resilient Governance is Urgent](#)

communities in simple monitoring make more rain soak into the ground, reduce silt in reservoirs, steady flows in the dry season and improve drinking-water availability. Such a holistic approach that addresses not only water scarcity but also soil conservation and natural resource management is crucial for ensuring a sustainable and resilient water future for the country.

1.2 Asian Paint Limited

Asian Paints Limited, headquartered in Mumbai, is one of the largest paint companies in India. Started in 1942, the company currently operates in 14 countries with products sold in over 60 markets. Asian Paints operates in various segments, including decorative paints, industrial and automotive coatings, and home décor products like furniture, lighting, and wallpapers. APL focuses heavily on research and development, which helps it keep introducing new and improved products. The company has also launched eco-friendly and sustainable paints, in line with the growing global preference for environmentally responsible solutions.

Asian Paints goes beyond its core business by actively contributing to social and environmental well-being through its Corporate Social Responsibility (CSR) initiatives. Guided by its values of trust, fairness, and care, the company focuses on creating long-term impact in communities around its operations. Its programmes address key areas such as water conservation, healthcare and skill development, leveraging its expertise to deliver meaningful change. The objective is to empower marginalised communities and improve quality of life by tackling critical social, economic, and environmental challenges. These efforts are closely aligned with the United Nations Sustainable Development Goals (SDGs), particularly, Goal 1 (No Poverty), Goal 2 (Zero Hunger), Goal 3 (Good Health and Well-being), Goal 6 (Clean Water and Sanitation), Goal 8 (Decent work and economic growth), Goal 11 (Sustainable cities and communities) and Goal 17 (Partnership for the goals).

Asian Paints runs several initiatives in water conservation, health and hygiene, skill development, and disaster relief. Its flagship Water Stewardship Program called the Watermark program, focuses on improving water availability and security in communities around its plants. The program combines supply-side measures like pond cleaning, desilting, check-dam construction and renovation, canal lining, and integrated watershed management with demand-side interventions such as micro-irrigation, System of Rice Intensification (SRI), and sustainable farming practices. These efforts aim to restore water bodies, reduce soil erosion, and recharge groundwater, while promoting efficient water use in agriculture. By adopting a holistic approach that includes soil health and pest management, Asian Paints helps strengthen ecosystem services and improve livelihoods.

1.3 About the Study

To understand the impact created by its interventions implemented in FY 2023-24, Asian Paints Ltd. empanelled KPMG to facilitate the impact assessment of its **Participatory Water Resource Management project**. The objective of this study was to assess the impact of these water stewardship activities on the beneficiaries and stakeholders covered under the projects. The study aimed to understand the immediate, medium, and longer-term impact of the interventions on the targeted beneficiaries:

The duration considered for this study is financial year 2023-24.

Impact on Access & Availability of Surface & Ground Water	• To understand the impact on ground-water recharge based on well recharge data • To understand the duration of water availability post-monsoon (in months) • To understand the impact of water accessibility, availability & livelihood of the farmers
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Impact on Potable Water	• To assess the impact on drinking water availability and quality due to rainwater water harvesting structures. • To assess impact on other areas like drudgery reduction, drop in health issues around the drinking water etc.
Impact on Agricultural Land & Practices	• To assess impact on season wise cropping pattern led by the availability of water in the area. • To assess impact on soil health due to balance use of fertilizer because of adoption of recommendations of soil testing report and application of organic fertilizers • To assess impact on knowledge level of the farmers about improved agricultural practices.
Impact on Farmer's Livelihood	• To assess impact of water availability on crop production (yield/acre) • To assess impact of water availability on productivity of livestock animals • To assess impact on net return/acre per farmer. • To assess the impact on livelihood opportunities created through the programme.
Other Impact Areas Apart from Water Rejuvenation	• To assess knowledge and adoption level of water efficient agricultural and risk mitigation farm practices. • To assess level of ownership by the community in the asset created: Whether community-based institutions had been formed and taking care of maintenance aspects of the assets created under the project.

1.4 About the project

Asian Paints' Water Stewardship Programs signifies the company's dedication to sustainable practices and responsible corporate citizenship. By addressing the challenge of water scarcity through community partnerships and integrated initiatives, Asian Paints aims to make a positive impact on both its operations and the communities it serves.

The Integrated Water Resource Management Project at Sriperumbudur is a comprehensive project aimed at enhancing water security and promoting sustainable rural development. The project spans multiple villages and interventions, including rejuvenation of major waterbodies, repair of sluice gates and surplus weirs, and soil health management. It combines supply-side water conservation measures with agriculture productivity enhancement, livelihood support, and capacity-building programs for local communities. It targeted an increase in water storage potential, restoration of pond ecosystems, and improved irrigation efficiency. By integrating technical training, awareness of biodiversity and institutional development, the initiative sought to create a resilient water management model that strengthens rural livelihoods and fosters long-term environmental sustainability.

1.5 About Implementing Partner

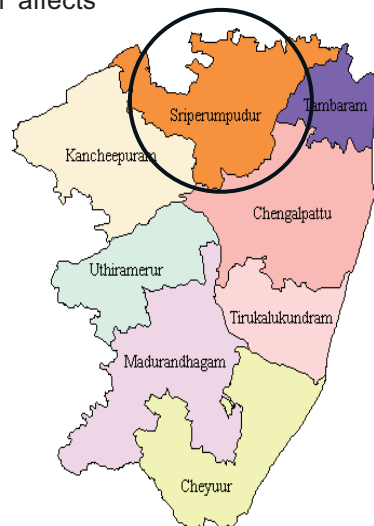
The National Agro Foundation (NAF), founded in 2000 by Bharat Ratna awardee and a prominent figure in Green Revolution, Mr. C. Subramaniam, is a Public Charitable Trust committed to driving a rural transformation

centered on agriculture and the upliftment of small and marginal farmers. Guided by the principle of inclusive growth, NAF adopts a holistic “Soil to Market” approach, evolving from Mr. Subramaniam’s visionary “Seed to Grain” philosophy. From its humble beginnings, NAF has grown into a dynamic, professional organization delivering innovative solutions that have significantly impacted rural communities. Through collaborations with government bodies, corporates, and other stakeholders, NAF has implemented programs addressing critical agricultural and rural development challenges, integrating advanced technologies, tailored training, and capacity-building initiatives. With strong research and development efforts, NAF has reached over 875,000 farmers across 6000+ villages in 10 states, reinforcing its commitment to sustainable development. Its partnerships span government and non-government organizations, academic institutions, financial bodies, and corporates. In association with Asian Paints Limited (APL), NAF is actively executing CSR projects focused on water resource development in Telangana, Uttar Pradesh, Karnataka, and Tamil Nadu. This strategic alliance aims to rejuvenate water bodies, enhance farmer livelihoods, and promote efficient natural resource management. Under this collaboration, NAF ensures timely execution of activities within budget, while APL provides essential technical and financial support, fostering a sustainable and inclusive development model that delivers tangible benefits to marginalized communities.

1.6 Project Geography

The state of Tamil Nadu lies in India’s rain-shadow of the Western Ghats and is distinctly monsoon-dependent. It receives a large share of its annual rain from the North-East Monsoon (Oct–Dec). While the state is home to 6 per cent of India’s population, it only has 3 per cent of water resources in India.⁶ The average annual rainfall of the state is recorded at 925 mm, which is much less than the national average of 1200 millimeters. 36 per cent of the annual rainfall is from the southwest monsoon and the northeast monsoon accounts for 48 per cent.⁷ The 2024 Central Ground Water Board assessment for Tamil Nadu places annual groundwater recharge at 21.5 BCM and annual extractable at 19.5 BCM, while extraction is 14.4 BCM, reflecting high local stress.⁸ Agriculture is an important livelihood source in Tamil Nadu, supporting about 40% of the population. Growth in the agriculture sector has been slow in recent years compared to the state’s overall economic growth. This is mainly due to challenges such as water shortages, low crop diversification, stagnant yields, and the increasing impacts of climate change. Rice is the major crop and most of the farmers in the state are small and marginal farmers. As farming depends heavily on monsoons, irregular rainfall affects production.

Kancheepuram district, located in northern Tamil Nadu, receives an average annual rainfall of about 1,147 mm.⁹ Its climate is tropical, with October–November forming the peak rainfall period due to the northeast monsoon. The district supports extensive water infrastructure, including multiple river systems such as the Palar, Araniyar and Kosasthalaiyar, which contribute to irrigation and groundwater recharge. Agriculture remains an important activity, with a net area sown of 39,048 hectares and a cropping intensity of 146.9%, highlighting intensive land use in the region.¹⁰ Sriperumbudur lies within Kancheepuram district on the Coromandel Coast. It is a major industrial node (SIPCOT Industrial Park & SEZ) along NH-48/Chennai–Bengaluru corridor, with automotive and electronics clusters. Rapid industrialization and urban growth have resulted in increased competition for water in the region. The region receives an annual rainfall of 1,136. The district historically relies on tanks and dug/open wells for irrigation, with numerous listed water bodies and PWD tanks supporting paddy and horticultural belts.¹¹ The region is characterized by hard-rock aquifers which are shallow and get dried up in the summer months.



⁶ [TN IAM Project](#)

⁷ Tamil Nadu Water Supply and Drainage Board [Tamilnadu | TWAD](#)

⁸ [Central Ground Water Board Report 2024](#)

⁹ [KANCHEEPURAM District](#)

¹⁰ [About District | Kancheepuram District, Government of Tamilnadu](#)

¹¹ [Statistical Handbook of Tamil Nadu](#)

Approach and Methodology

2. Approach and Methodology

The chapter provides details on the research design and methodology adopted for the impact assessment. It includes description of the key activities, data collection methods, and sampling strategies, employed to ensure the reliability and validity of the findings.

2.1 Our Approach

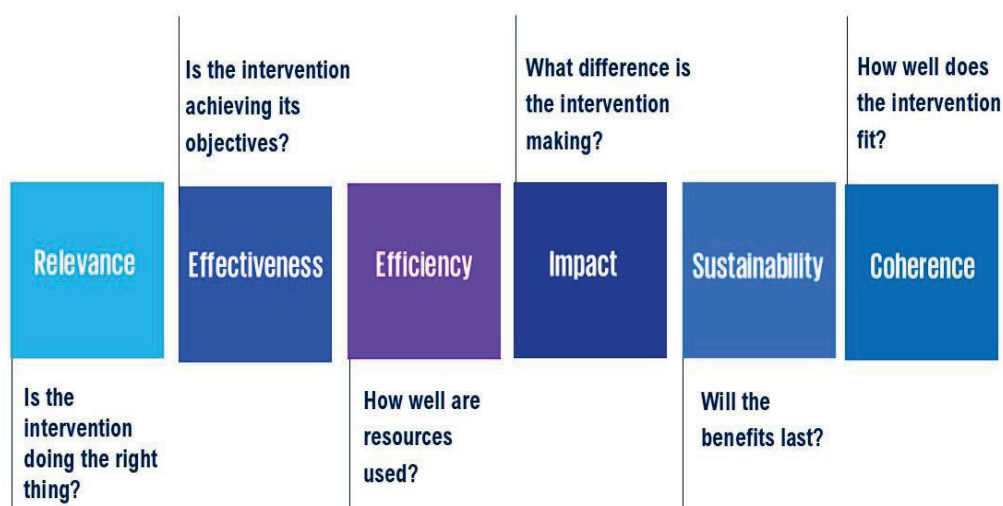
The study applied the OECD DAC and SROI frameworks to design the evaluation and measure the social returns and impacts generated by APL's CSR projects on water stewardship. The OECD DAC framework is a globally recognized approach for assessing the effectiveness of social development programs, while the SROI methodology goes beyond traditional economic metrics to capture broader social and environmental value.

A structured four-phase methodology was adopted to ensure a comprehensive evaluation. This approach integrated the principles of both OECD DAC and SROI throughout the process, enabling a robust assessment of outcomes and the overall impact of the program.

Phase I: Consulting and Scoping	Phase II: Research Design	Phase III: Data Collection	Phase IV: Analysis and Reporting
Kick-off meeting	Development of Impact Map	Development of field visit plan	Analysis of collected data using OECD DAC framework and estimating the SROI of the projects
Desk review of documents and reports related to the program	Mapping the stakeholders	Field visits and stakeholder interactions	Development of draft and final report
Determining the scope of the study	Designing sampling strategy and data collection tools		Presentation to APL Team

2.1.1 OECD-DAC

The Organization for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) introduced its evaluation criteria in 1991 as a structured framework for assessing development programs, whether ongoing or completed. This approach enables a systematic review of multiple dimensions of a program, offering both qualitative insights and quantitative measures of impact. The framework is widely recognized for its ability to evaluate effectiveness and relevance in social development initiatives. It is built around the following six key criteria, which form the basis for comprehensive program assessment under the OECD-DAC guidelines:



These evaluation criteria have been defined below along with illustrative questions:

Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
Relevance	A measure of the extent to which the intervention objectives and design respond to beneficiaries, global, country, and partner/institution needs, policies, and priorities, and continue to do so if circumstances change. ▪ To what extent are the objectives of the project still valid? ▪ Are the activities and outputs of the project consistent with the overall goal? ▪ Are the activities and outputs of the project consistent with the intended impacts and effects?	<i>Commitments of the stakeholders are integrated into Project design and planning</i>
Effectiveness	A measure of the extent to which the intervention achieved, or is expected to achieve, its objectives, and its results, including any differential results across groups. ▪ To what extent were the objectives achieved / are likely to be achieved? ▪ What were the major factors influencing the achievement or non-achievement of the objectives?	<i>Achieved cross-cutting objectives during project implementation</i>

Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
Efficiency	A measure of the extent to which the intervention delivers, or is likely to deliver, results in an economic and timely way. ▪ Were activities cost-efficient? ▪ Were objectives achieved on time? ▪ Was the project implemented in the most efficient way compared to alternatives?	<i>Resources are provided and efficiently used for participation of all stakeholders</i>
Impact	A measure of the extent to which the intervention has generated or is expected to generate significant positive or negative, intended, or unintended, higher-level effects. ▪ What has happened as a result of the project? ▪ What real difference has the activity made to the beneficiaries? How many people have been affected?	<i>Achieved real and long- lasting positive changes in the lives of intended beneficiaries</i>
Sustainability	A measure of the extent to which the net benefits of the intervention continue or are likely to continue. ▪ To what extent did the benefits of a project continue after donor funding ceased? ▪ What were the major factors which influenced the achievement or non-achievement of sustainability of the project? ▪ What can be some of the innovative ways to make the project sustainable in the long run?	<i>Likelihood that project achievements will continue after project</i>
Coherence	A measure of the extent to which the intervention is compatible with other interventions in a country, sector, or institution. ▪ Does the project address the synergies and interlinkages between the	<i>The extent to which other interventions (particularly policies) support or undermine the intervention and vice versa.</i>

Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
	intervention and other interventions in the same organisation and in the same sector/policy landscape? Does it weaken or enhance the impact of any current programs or policies? ▪ Does the program lead to duplication of efforts?	

2.1.2 Social Return on Investment (SROI)

Social Return on Investment (SROI) is a structured approach designed to capture and measure the broader value created by an investment. It covers the social, environmental, and economic benefits that traditional cost-benefit analyses often overlook. This methodology assigns monetary values to social and environmental outcomes, enabling organisations to calculate how much value is generated for every rupee spent on a program. Unlike conventional assessments, SROI focuses on changes that matter most to stakeholders, providing a clear picture of the social impact of projects and policies.

By using SROI, organisations can demonstrate the social value their initiatives deliver, gain deeper insights into stakeholder impact, and integrate these findings into strategic decision-making. It is fundamentally about value rather than just financial returns and can be applied to an entire organisation or a specific program. The approach uses a theory of change or impact map to outline how interventions lead to measurable outcomes, expressed in monetary terms, allowing for a benefit-to-cost ratio calculation. SROI combines qualitative, quantitative, and financial data, along with case studies, to inform future planning. Its key advantage lies in going beyond identifying outcomes to valuing them and calculating their social worth. Steps of a SROI are as follows:



Setting the Scope 	Identification of stakeholders including beneficiary group, finalising the scope- setting the boundary of what is going to be considered for evaluative SROI - stakeholders including beneficiaries, impacts, program period, etc.
Mapping Outcomes 	Creating impact map, identifying investments, and valuing inputs, identifying outcome sand indicators for monitoring / evidencing outcomes
Evidencing Outcomes 	Collecting and analysing outcome data and establishing how long the outcome will last
Establishing Impacts 	Identifying and valuing financial proxies, adjusting outcomes using deadweight, displacement, attribution and drop off, calculating the impact
Calculating SROI 	Programming the value of outcome into future based on the duration for which the impact will last, calculating the net present value including calculation of ratio and undertaking sensitivity analysis.

The process of calculation of SROI largely focuses on deadweight, displacement, attribution, and drop-off in association with any outcomes achieved. All these aspects are generally expressed as percentages and these percentages are applied to the financial proxy of each outcome to arrive at the total impact for the outcome.

Therefore, we used a customised framework involving a combination of OECD-DAC and SROI to obtain a full picture of the impact created by APL.

2.2 Detailed Methodology

The following section discusses the methodology being employed by KPMG in this impact assessment, which has been broken down into four phases.

PHASE I: CONSULTING AND SCOPING

Activity 1: Inception Meeting

The initial step involved a scoping and kick-off meeting between the KPMG team and APL to finalize the work plan. The key tasks, timelines, and approach for the engagement were discussed. A detailed project plan was prepared by KPMG to guide the execution.

Activity 2: Desk Review and Stakeholder Engagement

The team conducted a thorough review of documents provided by APL, including concept notes, annual reports, and progress or closure reports. Secondary research was also conducted to gain an in-depth understanding of the project locations and interventions. Additionally, discussions with APL and implementing partners helped clarify KPIs, map external stakeholders, and define the sampling strategy and size.

PHASE II: RESEARCH DESIGN

Activity 1: Developing the Impact Map / Theory of Change

An impact map based on the theory of change was created to define the project's outcome and impact parameters. This map serves as a logical framework that illustrates how inputs (actions or activities undertaken) lead to outputs (immediate changes resulting from interventions), which then drive outcomes (short- or medium-term effects linked to those outputs) and ultimately generate impact (positive or negative, intended or unintended, direct or indirect) arising from the interventions.

Activity 2: Stakeholder Mapping and Sampling strategy

Stakeholder mapping is the process of identifying all the stakeholders involved in a project and their roles and responsibilities on one map. The main benefit of a stakeholder map is to get a visual representation of all the people who can influence the project and how they are connected. Stakeholders who experience change, whether positive or negative because of the interventions carried out were considered for the study. Furthermore, their pertinence to the scope of the study and relevance to the overall analysis were assessed.



Sampling of stakeholders for engagement was done based on the materiality of the stakeholder and the extent of the impact on the stakeholder. Considering the overall outreach of the project as nearly 2767 beneficiaries, the statistically significant sampling has been derived. Additionally, we have taken extra sample stakeholder to derive accurate social return on investment ratio. The stakeholder-wise mode of interaction has been detailed out below:

Stakeholder type	Universe	Sample	Actual coverage
Farmers Benefited due to water intervention	2,767	100	100
PRI members Benefited due to water intervention	-		6

Stakeholder	Reason for Inclusion	Data collection tool
Farmers who have been benefitted due to water harvesting related interventions	Since the farmers are the direct beneficiaries of this study hence it is important to include them to understand if the objectives of this program have been met.	Structured Questionnaire: were developed In-depth Interview: were also undertaken
Farmers who have been benefitted due to agriculture related interventions	Agriculture is a key intervention, Hence, it is critical to get their perspective of the beneficiaries	Structured Questionnaire: were developed for farmers

Stakeholder	Reason for Inclusion	Data collection tool
		<i>In-depth Interview:</i> <i>were also undertaken</i>
Community members benefitted due to potable drinking water	The community members from the intervention area have been a key stakeholder and receiver of the impact hence, it is important to get their perspective.	<i>Semi-structured Questionnaire:</i> were developed for farmers
WUA members	In order to understand the governance mechanism established over the water usage, these stakeholders are important	<i>Structured Questionnaire:</i> were developed <i>In-depth Interview:</i> <i>were also undertaken</i>
PRI Members and government officials	In order to understand broad perspective of the community members through elected members	<i>Structured Questionnaire:</i> were developed <i>In-depth Interview:</i> <i>were also undertaken</i>
Stakeholders excluded from the study		
Community members from periphery of intervention villages	Excluded - It was understood from the implementing team that due to no direct intervention, these stakeholders will remain outside the scope of the intervention	Not applicable

The study includes three categories of beneficiaries: primary, secondary, and tertiary. Farmers, as the direct and intended recipients of project interventions, constitute the primary beneficiaries. Their family members and other community stakeholders constitute the secondary beneficiaries. Additionally, interactions were conducted with institutional stakeholders such as Panchayati Raj Institution (PRI) representatives and government officials, who constitute the tertiary stakeholder.

Stakeholder	Project Objectives	Inputs	Output	Outcome	Evidence Indicator
Farmers, Community members FPO/VI/WUA	To promote basic supplementary irrigation facilities by creating and strengthening water harvesting structures and increase water storage and availability	Construction and refurbishment of lakes, ponds and other water harvesting structures, Capacity building, Access to Finance, Time	Number of families reached out/availed benefits of water harvesting structures	Increase in agricultural production	Changes in availability of cultivated land, Changes in cropping pattern by farmers, Changes in multi-seasonal cropping
				Access to secure livelihood	Changes in the input cost required for agriculture
				Creation of sustainable water supply	Changes in the irrigation fed agriculture, changes in the availability of water, reduced dependency on the other sources of water
				Creation of employment opportunities	Changes in the labour employment by the local population
	To improve and stabilize surface soil to convert unirrigated land to irrigated land.		No. of families benefited from Group wells & Borewell	Access to potable water	Reduction in water borne diseases (Improvement in
	To organize and strengthen the village institutions around water harvesting and related livelihoods				

					health), reduction of drudgery (time saved)
				Access to secure livelihood	Changes in the input cost required for agriculture, adoption of improved agriculture practices
			No. of village institutions benefited	Establishing community stewardship over the common water resources	Community led governance of its resources, effective operations, and maintenance of water structures
			Increase in water storage capacity	Improved biodiversity in the catchment area	Increase in biomass in command area, Improved bio-diversity – presence of bird and animal species, Improved soil health, Reduced soil pollution.

Activity 3: Development of Data Collection Tools

The study adopted a mixed-methods approach, combining quantitative and qualitative techniques for data collection and analysis. Initially, a comprehensive desk review was conducted to assess existing knowledge and identify gaps for further investigation. Following the literature review and research design, survey instruments were created based on the impact map to gather both quantitative and qualitative data from a sample population using offline methods. These tools captured participants' experiences, attitudes, and behaviors. Additionally, semi-structured interviews were designed for key stakeholders, including experts, PRI members, government officials, community leaders, and practitioners, to gain deeper insights into the research topic and emerging best practices. All tools were aligned with program objectives and the scope outlined in the RFP, with additional questions incorporated to enrich the case study. The tools developed include:

- Tools for individual interactions
- Tools for focus group discussions
- Tools for other key stakeholder interactions
- Development of a research and data collection plan

PHASE III: DATA COLLECTION

Activity 1: Development of Field-Visit Plan

Stakeholder interactions were planned in coordination with APL and the project implementing partner. A detailed timeline was prepared for the field visits, with the implementing partner providing support for scheduling meetings, mobilizing stakeholders, and arranging translators where necessary. The team also consulted with the partner to anticipate potential challenges such as language barriers, cultural sensitivities, or safety concerns. These measures ensured that the data collection process was efficient and conducted in an ethical manner.

Activity 2: Conducting Field Visits

Stakeholder consultations were carried out through individual interviews, focus group discussions (FGDs), and key informant interviews (KII). To ensure effective communication, KPMG included facilitators with prior experience and proficiency in local language. The data collection team underwent training and sensitization sessions to engage stakeholders appropriately. Before the main exercise, tools were pre-tested. Throughout the process, data collection was closely monitored for completeness, accuracy and consistency, including backchecks and triangulation.

PHASE IV: ANALYSIS AND REPORTING

Activity 1: Data analysis and preliminary findings

During the data analysis, both qualitative and quantitative analysis were conducted on the data collected. To enhance accuracy and reliability, the findings from the quantitative data collected on the ground were

triangulated to an extent. The collected information was thoroughly analysed on a location disaggregated basis, allowing for a detailed understanding of the specific areas involved. To calculate the social returns and impacts resulting from the program, the SROI framework and OECD-DAC framework were utilized. Additionally, a sensitivity analysis was conducted to examine the results of the ROI. The data and observations obtained during the primary data collection phase and document review were carefully analysed to inform report writing. The findings were further scrutinised basis the assurance standards for SROI assessments.

Activity 2: Development of Report and Presentation

A comprehensive report was prepared for Asian Paints Limited at the enterprise level, capturing key observations, analyses, findings, and recommendations from the assessment. The report adhered to OECD-DAC and SROI framework guidelines to ensure accuracy and relevance. A draft version was shared with APL for review and feedback prior to finalisation. The finalised report was then presented to APL's leadership. Additionally, separate project-level reports were developed, providing detailed data and analysis. All collected data and corresponding analyses were also shared with APL.

Analysis and Findings

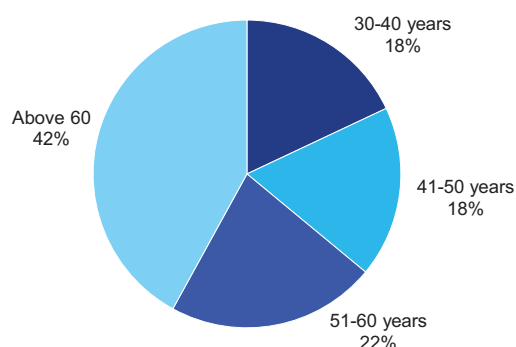
3. Analysis and Findings

The section below highlights the findings and observations based on the interactions conducted with sampled beneficiaries of the Water for Livelihood program supported by Asian Paints Limited, across three villages named Thirupandiyur, Kovalveed, and Thiruvankaranai in Sriperumbudur, Tamil Nadu.

3.1 Demographic Profile

3.1.1 Age

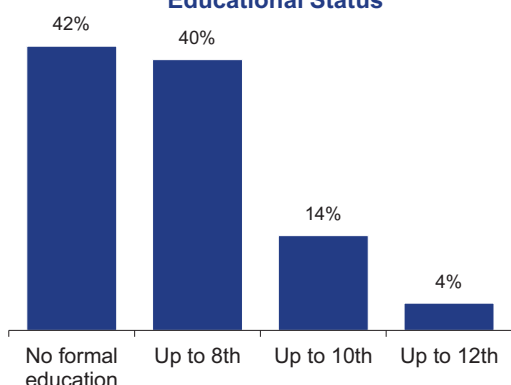
Age Profile



Among the respondents, people aged 60 years and above constituted a major share with 42%, followed by 22% with age between 51-60 years. There was an equal proportion of respondents (18% each) belonging to the age groups of 41-50 years and 30-40 years. The overall distribution shows that the participation was concentrated by senior households.

3.1.2 Education

Educational Status



The educational profile of the respondents indicates that a major proportion had limited access to formal schooling. Majority of the beneficiaries did not attend school or studied till primary and upper primary grades only. Very few of the respondents studied up to 12th and none of them got college education.

3.1.3 Source of Income

All the respondents reported agriculture as their primary source of income. Besides agriculture, many respondents (72 per cent) were also involved in other livelihood option which served as their secondary source of income. These additional sources contributed to financial stability for the respondents who were vulnerable to the seasonality of agricultural work. The break-up of livelihoods of those who had an additional source of income is shown below.

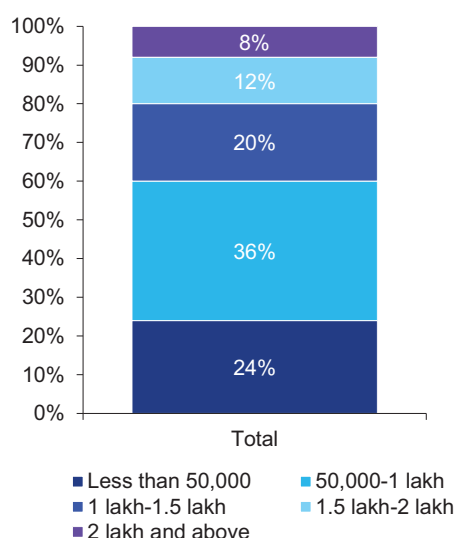
100%

of the respondents shared that they were primarily dependent upon agriculture for livelihood purposes

Secondary Sources of income	% of the respondents
Labourer	36%
Cattle rearing	33%
Aquaculture	31%

3.1.4 Income Profile

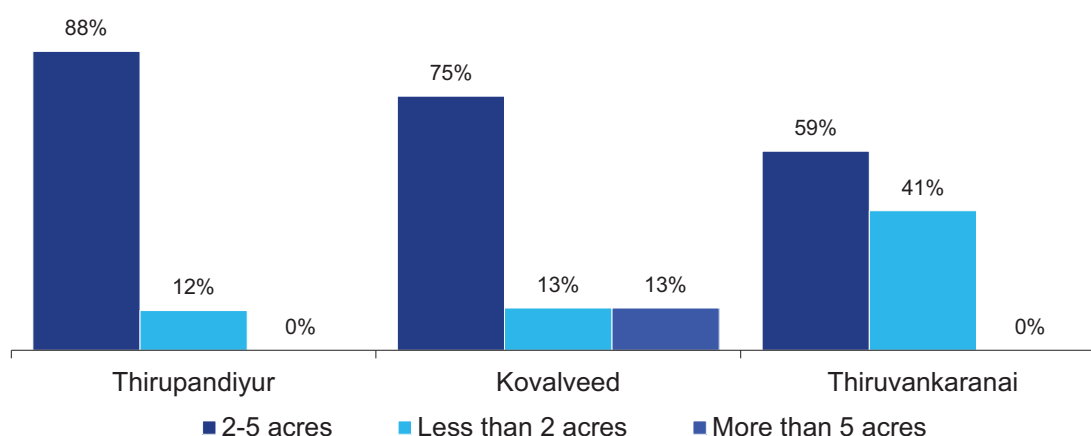
Household Income (in INR)



The household income distribution shows that most beneficiaries earn low income, with 38% earning between ₹50,000–1 lakh annually and 24% earning less than ₹50,000. A very small share reported annual incomes between ₹1.5–2 lakh and ₹2 lakh and above. 100% of beneficiaries have agriculture as their primary source of income. Around quarter of the respondents reported cattle rearing and daily wage labour as their secondary sources of income. A similar proportion of respondents also practiced aquaculture in the lake created by the APL intervention, which served as their secondary source of income.

3.1.5 Agricultural Landholding Pattern

Area under cultivation (in acres)



Across the three villages, marginal and small farmers form the predominant category. In Thiruvankaranai village, relatively higher number of farmers cultivate in less than 2 acres and most of them do not own the

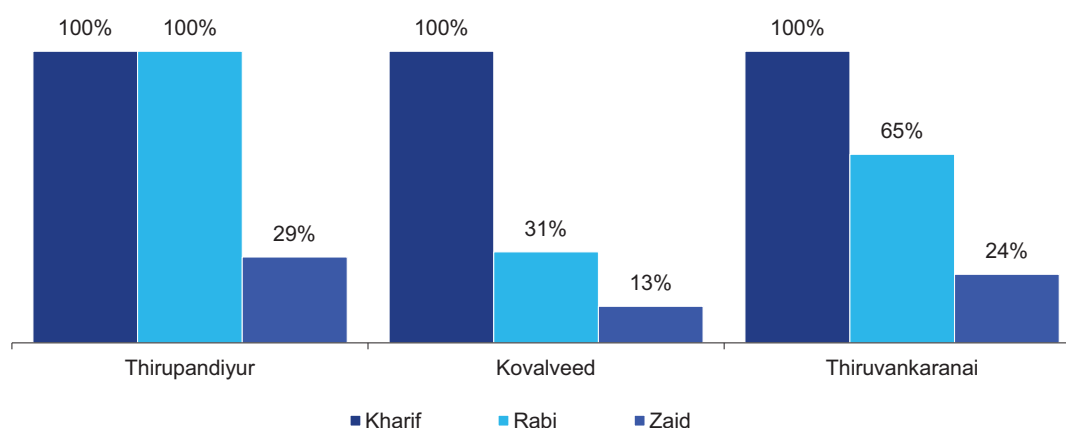
land that they cultivate in. Kovalveed has a few farmers cultivating in more than 5 acres of land, with 10 acres being the largest reported cultivated area. In all these villages, paddy is the main crop cultivated by the farmers. A few of them cultivate vegetables as secondary crops for self-consumption.

Status of irrigational facility:

Village Name	Yes	No, only dependent on rains
Thirupandiyur	41%	59%
Kovalveed	0%	100%
Thiruvankaranai	18%	82%

In all three villages, the respondents reported a high dependency on monsoon rains for cultivation and they lack irrigation facilities such as open well or borewell. There is 100% dependency on the rains in Kovalveed. In Thirupandiyur and Thiruvankaranai, a small share of respondents owns open well/borewell, but these are not reliable sources as they don't cater to the water requirements consistently throughout the year and are susceptible to seasonal variations. The non-availability of a reliable source of water for agriculture limits the farmers' capacity to cultivate in multiple seasons.

Season of Cultivation (Post-intervention)



The seasonal cultivation profile for the three villages sheds some light into the conditions of water availability in them. All the respondents across the three villages reported full dependence on rainfall for cultivation during monsoon and practice 100% cultivation in the Kharif season. The variability appears in the Rabi and Zaid seasons. Thirupandiyur, with 100 per cent Rabi and 29 per cent Zaid, shows relatively better water availability beyond monsoon months. The presence of open wells/bore wells with the residents and a naturally good aquifer recharge supports the cultivation of a second crop after the monsoon season. In, Thiruvankaranai, the presence of moderate Rabi cultivation suggests that farmers can partially extend the growing season. Kovalveed is a water-scarce region and experiences faster depletion of groundwater after the Kharif cycle. None of the respondents of this village owned a functional well/borewell that could support cultivation long after the monsoon.

84% of respondents reported practicing multi-season cropping due to improved availability of water, post-intervention

3.2 Support received from the intervention

Support received from the project	% of respondents
Water efficiency	90%
Improved agricultural practices	65%
Direct irrigation from Water Harvesting Structure	86%
Training/exposure visit	62%
Farm bunding	20%

65 per cent of farmers acknowledged that their agricultural practices improved after the intervention, enabling them to cultivate more than one crop or in one more season than what was prior to the intervention. The farmers also shifted to the use of improved seed varieties and practiced soil-moisture conservation practices. The high share of farmers reporting benefits around water efficiency (90 per cent) and direct irrigation from water harvesting structures (86 per cent) highlights the central role of water security in agriculture. In the intervention villages, farmers typically struggle with groundwater depletion after the monsoon and their well/borewells do not sufficiently cater to the irrigation needs. For the farmers who did not own any irrigation facility prior to the intervention, direct irrigation from the Water Harvesting Structure has helped them cultivate crops in the Rabi and Zaid seasons. 62 per cent of the respondents benefited from training and exposure visits and expressed adoption of new technologies and practices in agriculture, this was also supplemented by the provision of free machinery (such as sprayer, weed-remover, harvester).

3.2 Water Harvesting Structure

As part of the project's evaluation, detailed consultations were held with beneficiaries to capture their experiences and perspectives on the interventions. All the respondents shared that the water-focused activities had contributed positively to their livelihoods and expressed satisfaction with the project's outcomes. They also highlighted being actively involved during both the planning and implementation phases, with their suggestions meaningfully incorporated into project decisions. This reflects the project's commitment to ensuring community ownership for long-term sustainability of the project.

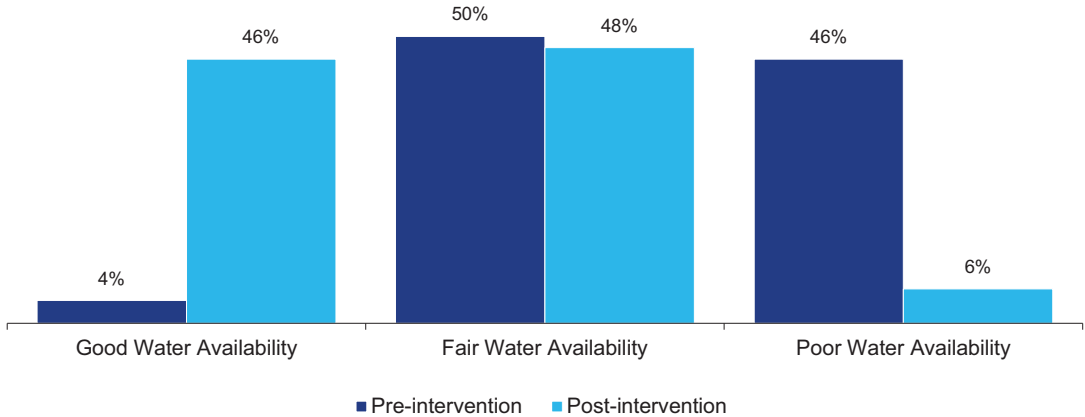
3.2.1 Impact on availability of water

Availability of water:

Prior to the project, half of the respondents rated water availability as fair and a significant 46 per cent of the respondents rated it as bad. This is reflective of the hydrology of the region. In all the three villages, although monsoon offers some seasonal relief, the hard-rock aquifer system offers limited water storage, leading to quick depletion of water once the rains recede. This situation is particularly evident in Kovalveed

village, with water bodies mostly drying up in early summer. Post-intervention, ground water recharge has improved and the proportion of respondents rating the water availability declined steeply to 6%. The overall availability of water has improved, with 'fair' rating turning to 'good'. Also, 80 per cent of the respondents who owned a well/borewell reported increased availability of water in the well.

Availability of Water



Accessibility of water and accessibility for social groups:

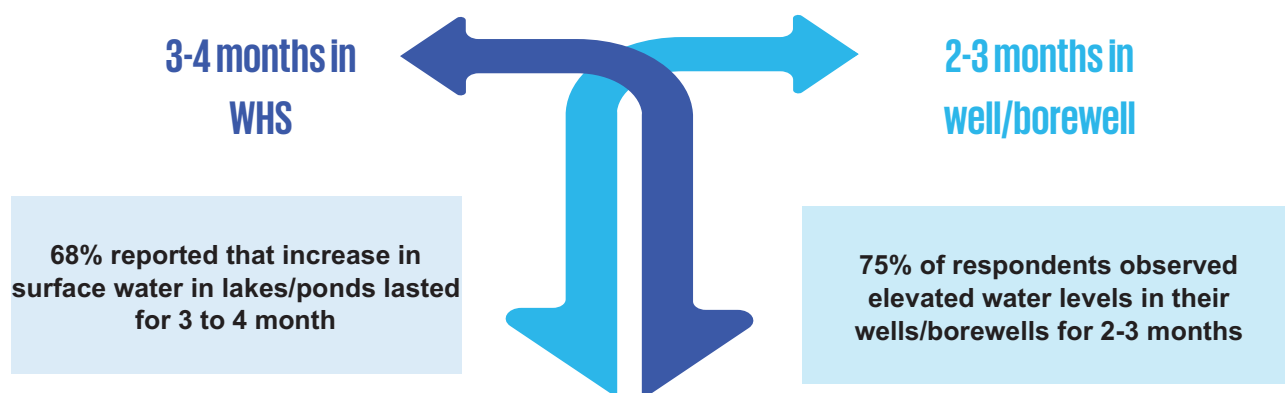
90% of respondents reported improved water accessibility

100% respondents reported accessibility for all social groups-class, caste, race, religion, differently abled, elderly, etc.

The intervention has resulted in a clear improvement in water accessibility for most households. 90 per cent of respondents reported that accessing water has become easier after the intervention. This suggests that the intervention has reduced the effort and time previously required to secure water for a most of the households. A small proportion of respondents (10 per cent) indicated that they did not experience any improvement. Many of these respondents had their farmland situated far from the constructed waterbodies, which limited the

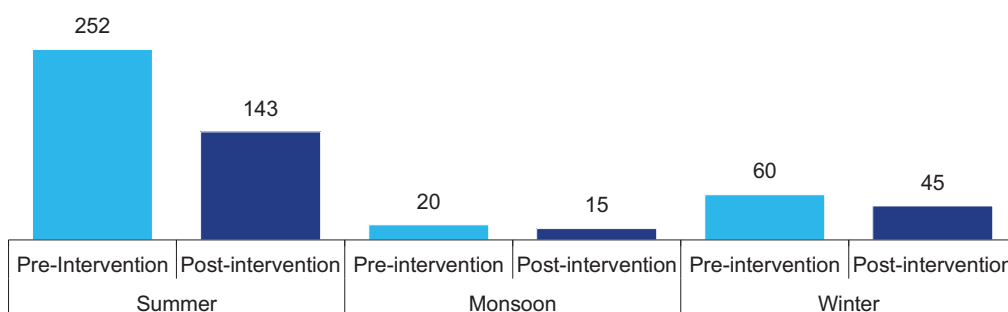
extent to which they could directly benefit from the outcomes of the intervention. Also, the project has taken the necessary measures to ensure that all social groups, regardless of caste, class, race, religion, or other factors, have equal access to the support interventions. All the respondents confirmed accessibility of the project across all social groups.

Duration of availability of water in Water Harvesting Structure/Borewell/Well post intervention:



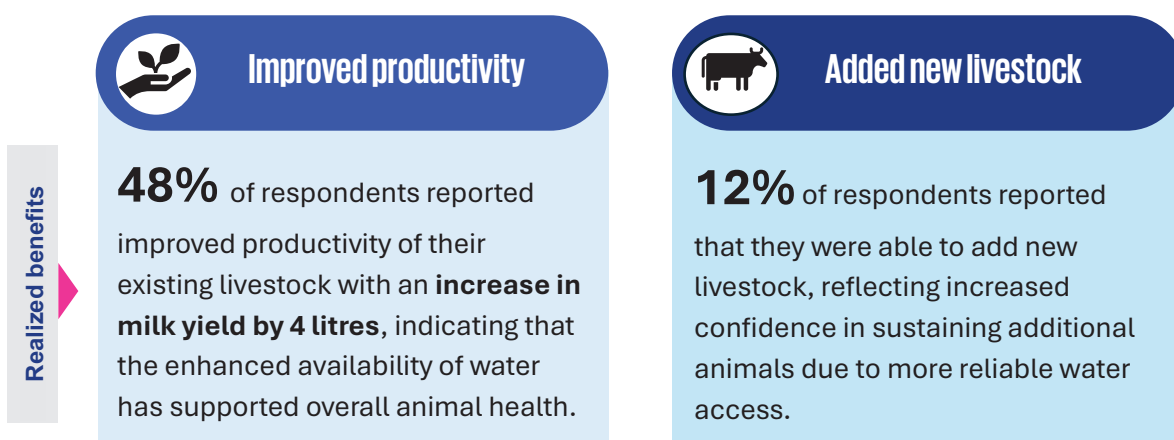
Depth of water availability in well/borewell:

Average depth of water availability in well/borewell (in ft.)



Discussions with respondents revealed that the intervention had a positive impact on the depth of water available in wells and borewells across seasons. Many shared that, before the intervention, water levels in summer declined much, with wells going as deep as 252 feet to access water. After the intervention, the respondents reported that the depth reduced to 143 feet on an average, indicating improved recharge and reduced stress on groundwater. A similar pattern was observed during the monsoon, where respondents noted that even though water was usually easier to access, the depth reduced from 20 feet to 15 feet because of retention of surface water and quicker percolation. In winter too, the depth improved from 60 feet to 45 feet as the restored water bodies that served as natural recharge structures.

3.2.2. Impact on Livestock

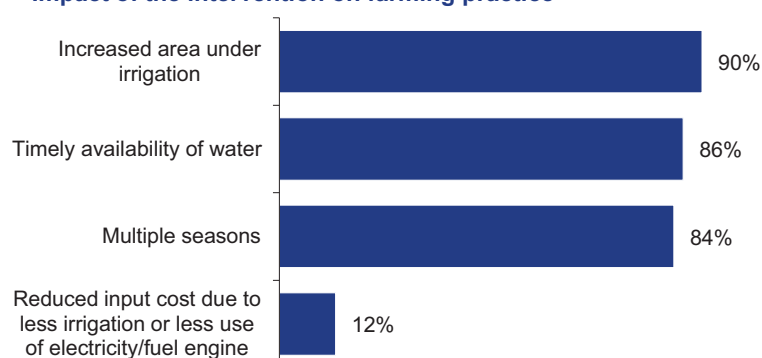


₹5,900

The improvements in livestock productivity and the addition of new livestock have contributed to a rise in household earnings. On average, respondents reported an **increase in income of ₹5,900** after the intervention.

3.2.3. Impact on farming practices

Impact of the intervention on farming practice



The intervention has brought about positive changes in farming practices across the villages, with 90 per cent of respondents reporting an increase in the area under irrigation. Farmers who previously were fully dependent on monsoon reported that more area of their farmland has received adequate irrigation post-intervention. 86 per cent reported timely availability of water and acknowledged that the intervention has helped reduce delays in irrigation during critical crop stages.

84 per cent of respondents reported that they are now able to cultivate in multiple seasons. In Kovalveed, where water scarcity previously limited farmers to a single Kharif crop with often uncertain yields, the improvement in water availability has enabled farmers to achieve better crop growth and harvests during the cultivation season. Only 12 per cent of the respondents reported reduced input costs. This is largely because most beneficiaries already receive free irrigation under the Tamil Nadu government scheme. For those who expanded their cropped area or began cultivating in additional seasons after the intervention, irrigation-related expenses naturally increased compared to earlier, resulting in fewer respondents reporting cost savings.

Impact on area of irrigation:

Village	Pre-intervention (unit in acre)	Post-intervention (unit in acre)	Delta change (in %)
Thirupandiyur	1.2	2.8	133%
Kovalveed	1	3	200%
Thiruvankaranai	0.5	2.4	380%

The irrigated area has increased across all three villages after the intervention. The scale of change varies based on each village's earlier dependence on rainfall and the size of their landholdings. In

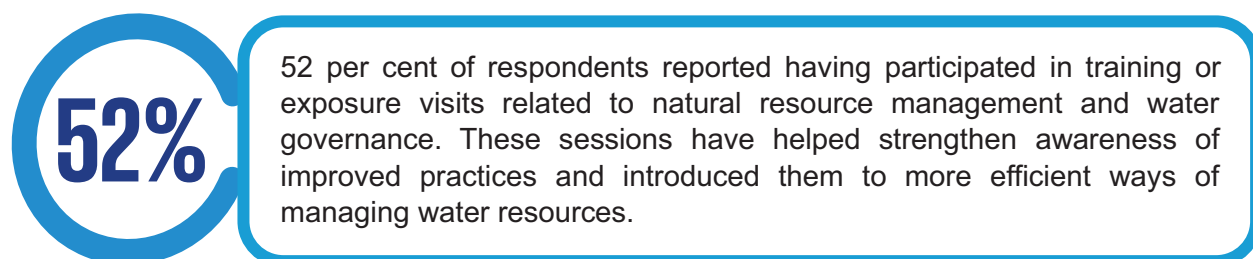
Thiruvankaranai, most households previously depended solely on monsoon and managed smaller plots. Improved access to water has allowed these farmers to irrigate and utilise a greater portion of their land than before. In Kovalveed, the farmers were almost entirely reliant on rain-fed conditions prior to the project, which constrained their ability to irrigate beyond a limited portion of their land. After the intervention, the farmers have been able to bring a larger portion of their land under irrigation.

3.3 Water Governance

3.3.1 Member of WUA Group



Interactions with the beneficiaries revealed that most of the respondents were members of a water user association (WUA). Day-to-day responsibilities related to the upkeep of the ponds and lakes that were created are undertaken by the panchayat with the collective action of the members of WUA. Although WUA membership is high, the sustainability of the water assets has been driven more by panchayat-led maintenance than by active community-based management through the WUAs. Revitalising the WUA by formalising bylaws, defining member roles, and aligning it with the Panchayat's maintenance responsibilities can create a shared, accountable governance structure. Strengthening O&M processes through regularised fee collection and transparent expenditure tracking will ensure sustained upkeep and reduce the dependence on the Panchayat alone. 28 per cent of respondents are not part of any WUA, and these non-members are mostly those who experience only limited benefits from the intervention, as their farmland is located far from the lake/pond.



3.4 Agriculture and Livelihood

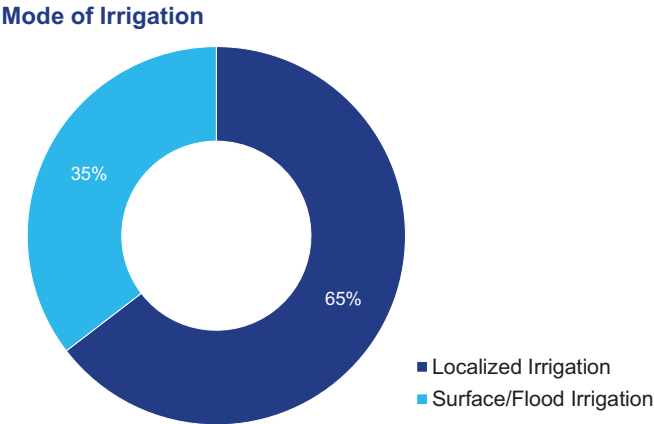
3.4.1 Impact on agricultural land

	Pre-intervention (unit in acre)	Post-intervention (unit in acre)
Total Cultivable Area (average)	2.8	2.9
Total Irrigated Area (average)	0.9	2.9

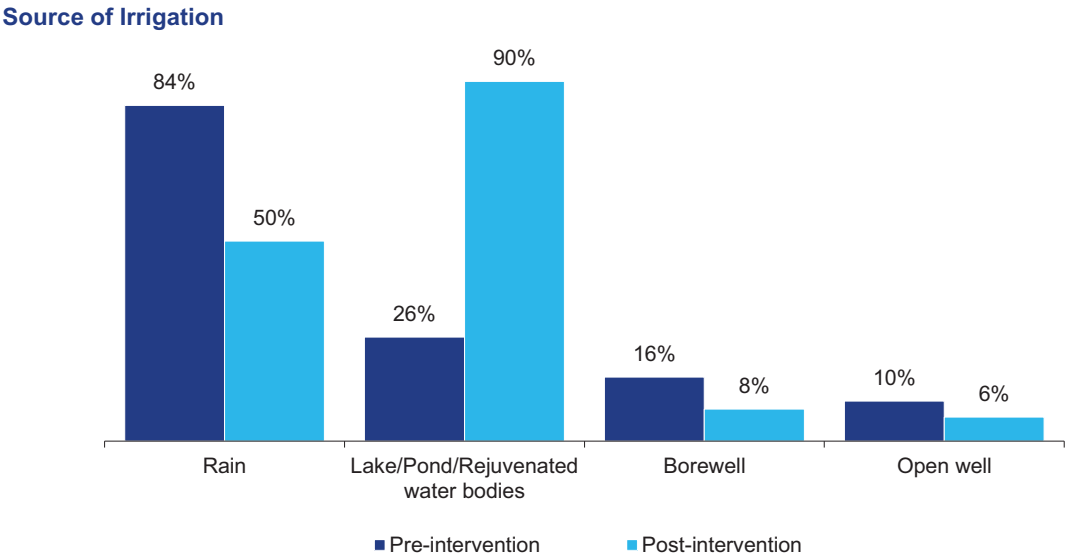
The intervention has helped farmers make better use of their agricultural land by improving the availability of water for cultivation. Discussions with respondents showed a slight increase in the total cultivable area, which reflects farmers bringing previously unused or fallow portions of their land into active cultivation rather than any change in landholdings. While the total cultivable area has remained almost the same before and after the project, the area that farmers are actually able to irrigate has increased significantly. Earlier, only a small portion of land could be irrigated (nearly 1 acre), but after the intervention, a much larger share of their land is now receiving adequate water (nearly 3 acres). Because of this, farmers are able to cultivate more crops and in more number of seasons.

3.4.2 Impact on mode of irrigation

Post-intervention, majority of the respondents use localized irrigation, where they apply water directly to the crop area instead of spreading it across the whole field. This shows that farmers are using water more carefully than before and making good use of the improved water availability. The remaining 34 per cent of farmers continue to use surface or flood irrigation. As paddy is the primary crop grown, and it requires standing water during certain stages of growth, surface/flood irrigation usually becomes the preferred choice. However, this shift suggests that, even while growing a water-intensive crop like paddy, farmers are trying to use water more efficiently and make better use of the improved water availability created through the intervention.



3.4.3 Impact on source of irrigation



The intervention has brought a major shift in the sources of irrigation used by farmers. Earlier, most farmers depended almost entirely on rainfall for irrigation. After the creation of the lakes and the pond in the villages, farmers now have a much more reliable and accessible source of water. As dependence on rain has reduced, farmers are now able to draw water from the newly created structures during key crop stages. The use of borewells and open wells was limited prior to the intervention and these structures dried up during summer, making them less reliable sources. Overall, the creation of the lakes and pond has strengthened irrigation reliability and reduced the vulnerability associated with rain-fed farming.

3.4.4 Impact on Agricultural Yield



The intervention has contributed to improvement in agricultural yields across all three villages. In Thirupandiyur, paddy yields increased from 22 to 27.5 quintals per acre, reflecting better water availability and crop performance. Kovalveed, which previously recorded the lowest average yield of 18 quintals per acre among the villages due to water scarcity, showed improvement in yield by 6 quintals per acre. In Thiruvankaranai, yields increased from 20 to 25 quintals per acre, demonstrating gains similar to the other villages. The respondents attributed the increase in yield to improved water availability and new agricultural practices adopted from the trainings and exposure visits that they attended.

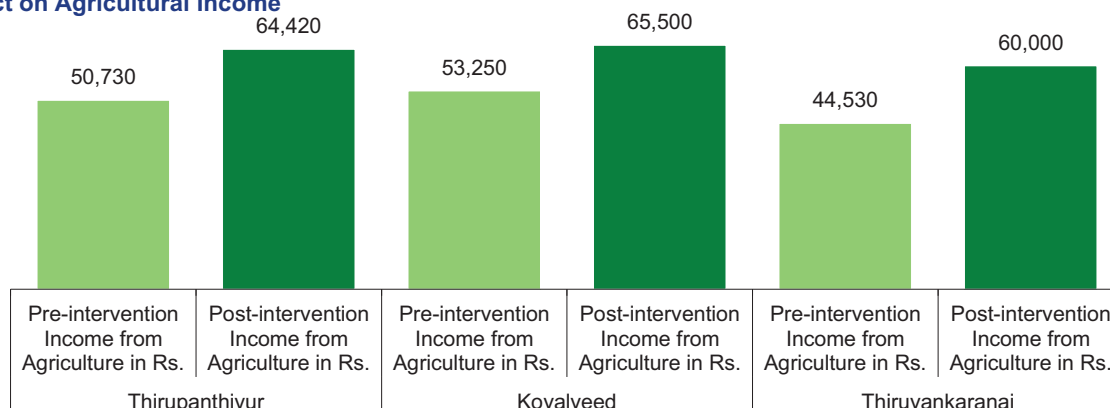
3.4.5 Impact on Agricultural Income

After the intervention, all villages recorded higher income from agriculture. Earlier, farmers earned less because they depended mainly on rainfall and could grow crops only in a limited way. Post-intervention, the respondents reported earning more from their fields due to better water availability, healthier crop growth, and the ability to cultivate more land than before. Villages of Kovalveed and Thiruvankaranai that previously struggled with unreliable irrigation saw particularly strong improvements. Even in Thirupandiyur, where agricultural activity was already comparatively stable, farmers noted a meaningful increase in their earnings. The village-wise break-down of increase in income is shown in the graph below.



On an average, the farmers reported 28% increase in their agricultural income post-intervention

Impact on Agricultural Income



3.4.6 Impact on Asset Creation



In the focus group discussions held with farmers, it was observed that none of the respondents had purchased any new assets during the recent period. As essential farming machinery was available to them on rent, the respondents stated that the need for individual investments was reduced. However, a few farmers mentioned that they were considering purchasing their own equipment in the future, depending on how their crop yields progress over the next few agricultural cycles. Among the women participants, several who were active members of Self-Help Groups (SHGs) reported experiencing improved financial management. These insights indicate that while asset acquisition had not yet increased, the enabling environment created through accessible machinery and strengthened financial practices may encourage future investments.

3.4.7 Impact on Water Quality

The water quality across all three sampling locations is generally good, with most parameters falling well within the acceptable limits prescribed by IS 10500:2012 for drinking water. The pH levels remain in the safe neutral to slightly alkaline range, and the Total Dissolved Solids (TDS) values are low, indicating clean, low-salinity water. Essential minerals such as calcium, magnesium, and chloride appear in modest concentrations, far below the maximum allowable limits, suggesting the water is soft and unlikely to cause scaling or taste issues. Overall, the chemical composition reflects fresh, low-mineral water suitable for consumption from a chemical standpoint.

Likewise, alkalinity levels remain within the desirable range. Sodium and potassium values are also moderate and typical of natural surface water sources. Collectively, these results indicate that the sampled waters are chemically safe and of good quality.

Good (Acceptable)	
Medium (Permissible)	
Harmful (Non-Permissible)	

Indicators	Thirupandiyur Pond	Thirupandiyur Lake	Thiruvankaranai lake
pH	7.38	6.76	7.29
EC (µS/cm)	230	550	180
Total Dissolved Salts – TDS (mg/L)	150	360	120
Total Alkalinity as Calcium Carbonate (mg./lit.)	39.90	39.90	139.65
Potassium (mg./lit.)	20	20	15
Chloride (mg./lit.)	28.08	9.36	28.08
Calcium (mg./lit.)	20	10	16
Magnesium (mg./lit.)	12	7	10
Sodium (mg./lit)	35	32	34

3.4.8 Impact on Environment

100%

of the respondents shared that they have observed an increase in green cover near the intervention site

100%

of the respondents shared that they have observed an increase in the presence of birds and animals in the intervention site, which was a rare sight previously

In the focus group discussions, respondents stated that they have seen an increase in vegetation cover near the intervention sites because of increased availability of ground water. Many respondents also

reported seeing birds near the pond and the lakes. Some of the respondents in Thiruvankaranai also reported of having seen animals from the wild drinking water from the lake.

3.4.9 Other Impacts

The creation of the lake at Thiruvankaranai has generated new livelihood opportunities for the local community. Several respondents reported that they have begun practicing fishing in the newly formed waterbody, which has now become an important additional source of income for their households. Beyond direct income generation, the lake has also contributed to seasonal employment through activities such as net making and routine maintenance of the waterbody. Community members noted that the improved water availability has supported livestock rearing and kitchen gardens, helping diversify their livelihoods. The presence of a stable water source has also reduced the time and effort spent on water collection, allowing families, especially women, to engage in other productive tasks and wage work. The lake has become a multi-benefit asset, strengthening both economic activities and the overall resilience of the village.

3.4.10 Brand Recall

The stakeholder consultations revealed a strong brand recall for Asian Paints Limited (APL) among community members across the project villages. Beneficiaries clearly recognized APL as the primary donor supporting the water harvesting interventions, and this awareness was further reinforced by the physical branding at each rejuvenated water body (lake/pond), displaying the APL branding along with details water capacity. During interactions, villagers consistently expressed gratitude for the support extended by APL, noting that the project has brought meaningful improvements to their agricultural productivity and daily lives.

3.4.10 Case Study

A smallholder farmer cultivating two acres of paddy in Sriperumbudur, was dependent solely on agriculture for supporting his family of five members. His livelihood was constantly challenged by irregular rainfall, limited water availability, and traditional farming practices that limited productivity. Despite his hard work, his farm generally produced about 40 bags of paddy per harvest, earning him nearly Rs. 48,000, that left little room for savings or growth.

The waterbody rejuvenation intervention paved a turning point. The water harvesting structures improved water storage and groundwater recharge for surrounding farms, including his farm. He was also introduced to modern agricultural practices through training. Guidance on lean farming techniques, irrigation management and organic inputs enabled him to adopt more efficient cultivation methods. With improved water availability and enhanced farming knowledge, he gradually began to see a change in his fields. His paddy yield increased by nearly 20 per cent, raising his harvest income to around Rs. 60,000. Beyond the numbers, the intervention strengthened his confidence and gave him the tools to farm more sustainably. His story is an example of how adequate access to water resources and practical agricultural training can transform small farms into more resilient and productive livelihoods.



The farmer in his paddy field

Income pre-intervention (in INR)	Income post-intervention (in INR)
48,000	60,000

Measuring the Social Return

4. Measuring the Social Return

As explained in Chapter 2, this report has used two evaluation frameworks which are OECD-DAC and SRoI. Generally, OECD-DAC helps in gaining a qualitative understanding of the impact. On the other hand, SRoI helps organizations in evaluating changes which are being created by measuring social, environmental, and economic outcomes and providing monetary values to represent them. SRoI also helps in understanding the total value generated for every rupee invested for interventions.

There are two types of SRoI:

- Evaluative, which is conducted retrospectively and based on actual outcomes that have already taken place.
- Forecast, which predicts how much social value will be created if the activities meet their intended outcome.

For this study, both evaluative as well as forecasting SRoI has been considered. SRoI primarily involves six stages which are as follows:

Stage 1: Establishing Scope and identifying key stakeholders

Stage 2: Mapping outcomes

Stage 3: Evidencing outcomes and giving them a value

Stage 4: Establishing impact

Stage 5: Calculating the SRoI

Stage 6: Reporting

Stage 1 and Stage 2 have been discussed in-depth in Chapter 2. Further stages have been elaborated in the ensuing sections.

5.1 Evidencing Outcomes

After creating the impact map, outcome indicators were developed based on interactions with beneficiaries and other key stakeholders such as PRI members and implementation teams. Evidence of these outcomes was gathered through both primary and secondary data sources.

Quantity of Change: The quantity of change for the impact map was calculated by extrapolating responses from the sample to the entire beneficiary population. Based on the data collected, a proportionate percentage of total beneficiaries was estimated to represent the overall impact.

The details about the evidence indicators for the outcomes and the quantity of change against each indicator are provided below:

Duration of Outcome:

Some outcomes are long-term, lasting throughout a beneficiary's life, while others persist only as long as the intervention continues. For this SRoI analysis, impacts from infrastructure-related activities are considered for up to 5 years, whereas intangible interventions such as training are assumed to have an impact for 3 years. These timelines are based on the following assumptions:

- Water resource development creates lasting effects on groundwater and surface water levels, with corresponding economic and social benefits

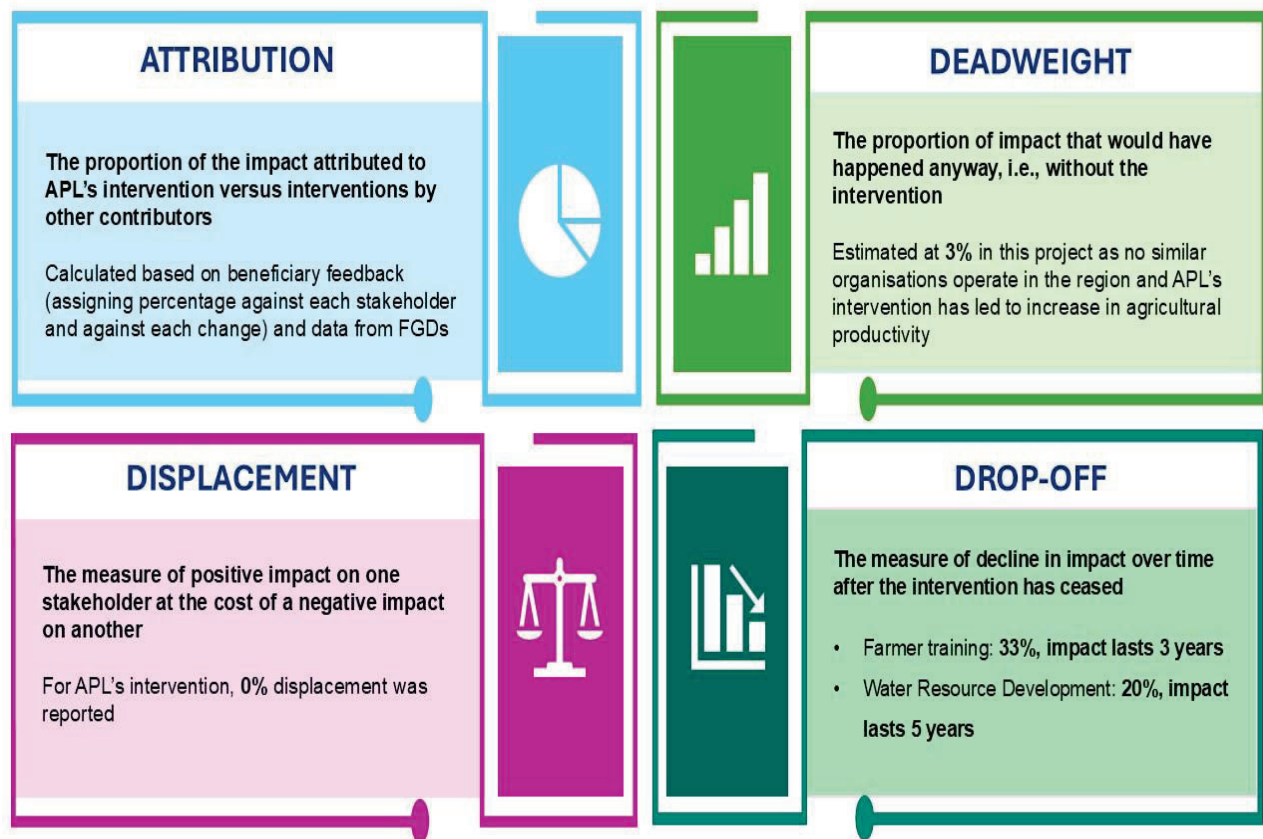
- Training-based interventions require periodic updates due to technological, market, and climate changes
- Based on the nature of interventions and evolving income-generating activities, beneficiary and stakeholder contributions will eventually outweigh the impacts due to initial support from APL

Financial Proxy and Value of Financial Proxy:

To assign value to outcomes, financial proxies were used, following standard practice of using market prices where possible. For intangible outcomes without direct market value, the closest comparable proxy was identified. Refer to the table for outcome-wise details.

4.2 Establishing Impacts

An important part of SROI is 'measuring impact' by accounting for attribution, deadweight, displacement, and drop-off.



4.3 Calculating Impact

$$\text{Impact} = \text{Quantity of outcome} * \text{Financial Proxy Value} * (\text{Attribution} - \text{Deadweight} - \text{Displacement} - \text{Drop-off for each year})$$

SRoI is a ratio of cumulative present value for each outcome against the total investment in the project i.e., **SRoI = Total NPV of social value / Total investment**

Total Input Value: For SRoI calculation, inputs from APL, beneficiaries, and other stakeholders were considered, assuming all contributions collectively created the observed impact. Without any one of these inputs, the current outcomes would not have been achieved. Inputs included financial contributions from APL, beneficiaries, and stakeholders, as well as the time invested by beneficiaries in training and exposure activities. Financial values were provided by APL, while non-financial inputs were estimated in consultation with the APL CSR team.

The below table represents the total cumulative investments from all the stakeholders towards the project from the time period 2023-24:

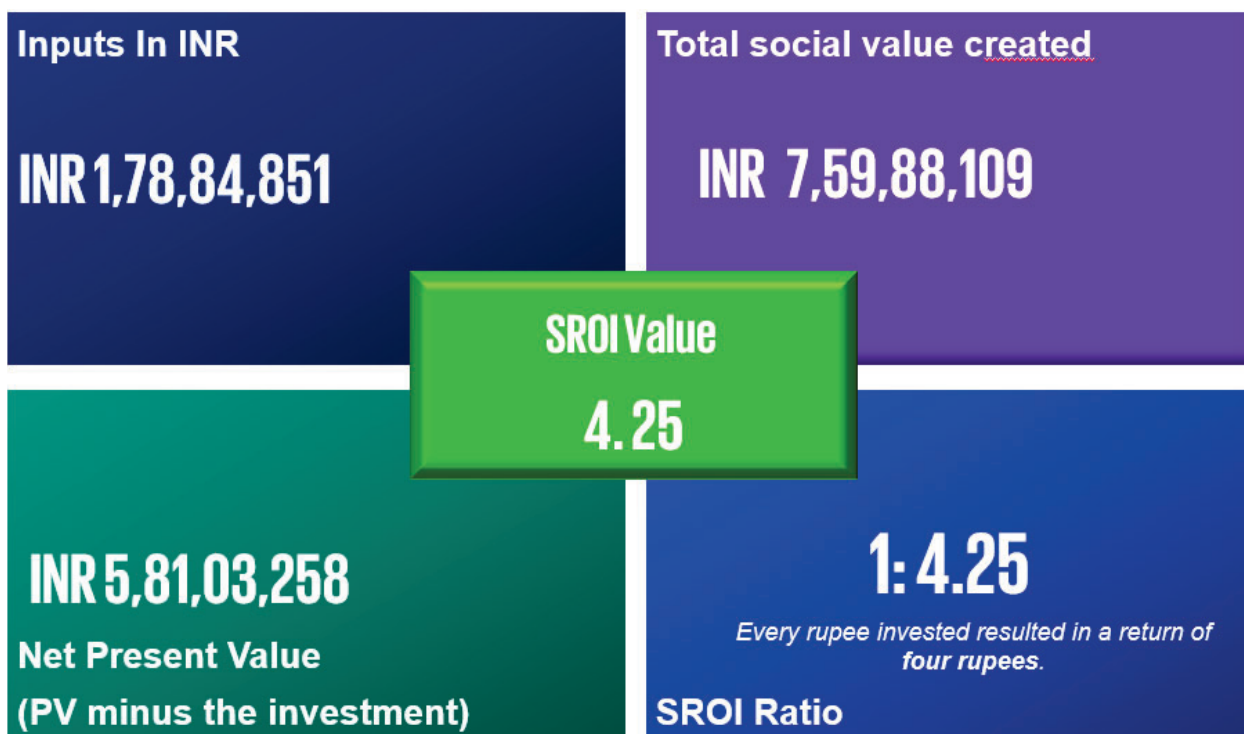
InputType	Inputdescription	Total Input value(INR)
Financial inputs	CSR Funding from APL	1,78,84,851
Total		1,78,84,851

Net Present Value: The Impact Value is adjusted to reflect the Net Present Value (NPV) of the projected outcome values. This is to reflect the present-day value of benefits projected into the future.

A **discount rate of 5%** has been used for the NPV calculations.

$$\text{SRoI} = \{\text{Total present value of impact} / \text{Total present value of input}\}$$

The below table depicts the NPV evaluated as of 2025 and forecasted for 2030 (considering the duration period of 5 years for each outcome):



The SROI for this analysis- evaluative SROI (as on 2025) and evaluative cum forecast SROI (as on 2030) is derived from dividing the total present value of the impacts by the total input value of the investment. This is considered because the beneficiaries who have received the support in 2025 would realise the impact for the next 5 years i.e., by 2030.

The below table shows the SROI Value and the SROI Ratio before sensitivity analysis:

For every INR 1 invested, the programme has generated social impact of INR 4.25.

Sensitivity Analysis: Our calculations to arrive at the results provided in this report are relied on a variety of primary and secondary data, but the beneficiary data introduced a higher level of uncertainty. This survey was utilized to estimate the attribution, additionality of APL interventions to specific outcomes, and the duration of time the impact would last.

Sensitivity Analysis was used to test variables and assumptions to ensure that conservative estimates have been used in arriving at the SROI. For each impact area, we tested the impact of using one standard deviation above and below the average response to attribution survey questions.

With sensitivity computation, the value of the APL program can then be stated in a range. For every INR 1 invested, the social value generated is between INR 2.74 and INR 3.88.

Sr. No.	Base case Parameters	Base case SROI	Test case Parameters (Min-Max)	Test case SROI
1	Deadweight	3.36	Deadweight is 0%	3.52

Sr. No.	Base case Parameters	Base case SROI	Test case Parameters (Min-Max)	Test case SROI
			Deadweight is 8%	3.24
2	Displacement		Displacement 0%	3.44
			Displacement is 10%	3.07
3	Attribution		Attribution is 80%	3.88
			Attribution is 70%	2.84
4	Drop-off		Drop-off is 3 years	2.74
			Drop-off is 5 years	3.41

Limitations & assumptions for the SROI study

- The study is limited to the sample of beneficiaries interacted with on-ground during field visits.
- The survey conducted with sample beneficiaries is subjective in nature.
- The study is limited to the recall of the participants in the study.
- The financial proxies are limited to publicly available resources. The financial proxies are representative and based on professional judgement, but it may not be reflective of actual costs incurred due to several considerations. (Refer to Appendix B for details of financial proxies)
- The deadweight, displacement, drop off values are derived from the responses from the stakeholders.

While information obtained from the public domain or external sources has not been verified for authenticity, accuracy, or completeness, we have obtained information, as far as possible, from sources generally considered to be reliable. However, it must be noted that some of these websites/third party sources may not be updated regularly. We assume no responsibility for the reliability and credibility of such information.

Way Forward

5. Way Forward

The insights generated through Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) have provided a comprehensive understanding of the community practices and the evolving dynamics of water management and livelihood practices in the location. Interactions with diverse stakeholders including farmers, women, Water User Associations (WUAs), and Panchayat representatives highlighted clear improvements in water availability and agricultural potential following the rejuvenation of water bodies, but also revealed persistent challenges that may limit the long-term sustainability of the intervention.

Key Observations	Recommendations
Low participation of women; major water-related decisions taken mainly by men.	Introduce gender-focused training, create women-led water committees and ensure women's involvement across project stages.
Farmers continue to grow paddy as the dominant crop in both Kharif and Rabi despite improved water availability; very low crop diversification observed.	Promote crop diversification through demonstrations, farmer field schools, and incentives for adopting less water-intensive crops. Establish community water-use guidelines.
WUAs remain largely inactive; members unclear about roles, responsibilities, and post-project maintenance obligations.	Establish WUA bylaws that clarify governance roles, member responsibilities, decision-making processes, and coordination mechanisms with the Panchayat. This will help shift the WUA from an inactive group to a functioning institution with shared accountability.
Lack of designated funds and systems for long-term maintenance of rejuvenated lakes and ponds (O&M).	Establish a clear Operations & Maintenance (O&M) resource plan, including an annual O&M budgeting by Panchayat, community/user contributions, WUA-managed maintenance funds and defined protocols for desilting, vegetation control, bund repairs, and periodic structural inspections. Strengthen O&M by moving from ad-hoc, nominal user payments to a structured, transparent contribution system aligned with actual maintenance needs. The WUA working jointly with the Panchayat should maintain public records of collections and expenditures to build community trust and participation.

6. Annexure

Financial Proxies used for SRoI

Outputs	Outcomes	Indicators	Valuation Approach (monetary)	Monetary Valuation
Construction and refurbishment of Check dams/ Water Harvesting Structures	Creation of sustainable water supply through increment in availability and accessibility of water	Increase in water harvesting capacity (Quantum of Water Potential created or Water Harvested in Cubic Metre)	Groundwater abstraction charges for Drinking and Domestic use (Central Water Commission) per cubic metre	2.00
		Increased availability of water for irrigation - surface water from Water Harvesting Structure (Number of farmers x Avg increase in Irrigated land)	Irrigation charges by Tamil Nadu government (per hectare)	61.78
		Increased availability of water in wells / borewells (number of farmers/community members x Avg increase in availability of water in months/days)	Average HH requires 220 LPCD daily and using it for a months gets us the water requirement = 6600/HH/month Average charges for purchasing water (One water tanker of 4000 litre capacity) - INR 200/-	330.00
	Increased agriculture production due to increment in availability of water	Increase in agriculture produce (Number of farmers x Avg increase in yield in the year)	Average increase in Yield indicated by respondents (Quintals) MSP of Paddy in TN- 2265/Q FY 25-26	2300.00
		Reduction in Cost of Cultivation (Number of farmers x Avg reduction in cost annually)	Average reduction in Cost of Cultivation indicated by respondents (INR)	5120.00
		Reduction in Cost of Irrigation (Number of farmers using Mobile Engines for irrigation x Avg hours of irrigation)	Average reduction in Irrigation cost indicated by respondents (INR)	2639

Outputs	Outcomes	Indicators	Valuation Approach (monetary)	Monetary Valuation
	Increased access to water for animal husbandry activities	Increase in annual income due to availability of quality potable water for cattles and other animals (Number of households x % increase in milk yield)	Average increase in Milk Yield (in Litres per day) x Amount received for 1L of milk in Tamil Nadu	60.00
Trainings/ Workshops/ Demonstrations/ Non-pesticide management/ Mulching	Increased agriculture production due to enhanced agriculture practice	Adoption of improved agriculture practices (% of members indicating adoption of improved agriculture practices)	Training cost	5000.00
Establishing village-level institutions	Community led governance of water resources at village level	Formation of water committees in villages and creation of bylaws for water management in village (Number of village water user groups formed)	Subsidy given for training of Farmer Groups under ATMA scheme (NMAET)	5000.00
Provision of plant/saplings to the farmers	Improved income diversification	Number of farmers expecting improved income	Cost of a mango sapling at market price	40.00



IMPACT ASSESSMENT OF WATER RESOURCE MANAGEMENT AT KASNA, UTTAR PRADESH

March 2026

Asian Paints Limited



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24 March 2026

Subject: Final report for Impact assessment of CSR Projects

Dear Mr. Amit Kumar,

We appreciate the opportunity to assist Asian Paints Limited in providing **Impact assessment of CSR Projects** related services.

Please find enclosed our final report, which has been prepared in accordance with the scope and terms stated in our engagement letter dated 3rd February 2026. With this deliverable, we have completed our obligations as stated in our engagement letter.

It has been our privilege to have this opportunity to work with you, and we look forward to continuing our relationship.

Yours sincerely

Signed by:


Jignesh Bhalkar

Partner,

KPMG Assurance and Consulting Services LLP

Disclaimer

- *Our report has been prepared solely for Asian Paints Limited. KPMG does not accept or assume any liability, responsibility, or duty of care for any use of or reliance on this report by anyone, other than our Client, to the extent agreed in the Agreement.*
- *Impact assessment is limited to the projects allocated by Asian Paints Limited*
- *OECD DAC and SROI framework has been used in preparing the report as detailed herein. No professional assurance standards ex. ISAE, SSAE etc. have been applied while preparing this report and accordingly the rigors applicable under such standards are not applicable for the scope covered by our report.*
- *Procedures, analysis and recommendations, if any, are advisory in nature basis the information collected from various sources both publicly and those provided by the client.*
- *Our observations represent our understanding and interpretation of the facts based on reporting of beneficiaries and stakeholders.*
- *Our report, by its very nature, may involve numerous assumptions, inherent risks, and uncertainties, both general and specific. The conclusions drawn shall be based on the information available with us at the time of preparing the report.*
- *We shall not perform an audit and shall not express an opinion or any other form of assurance. Further, comments in our report are not and shall not be intended, nor should they be interpreted to be legal advice or opinion. Client shall be fully and solely responsible for applying independent judgment, with respect to the findings included in the report, to make appropriate decisions in relation to future course of action, if any. We shall not take responsibility for the consequences resulting from decisions based on information included in the report.*
- *While information obtained from the public domain or external sources has not been verified for authenticity, accuracy, or completeness, we have obtained information, as far as possible, from sources generally considered to be reliable. However, it must be noted that some of these websites/third party sources may not be updated regularly. We assume no responsibility for the reliability and credibility of such information.*
- *Our work shall be limited to the specific procedures described in this Engagement Letter and shall be based only on the information and analysis of the data obtained through interviews of beneficiaries supported under the programme, selected as sample respondents and discussions with APL team and stakeholders of the programme. Accordingly, changes in circumstances or information available after the review could affect the findings outlined in our report.*
- *In no circumstances shall we be liable, for any loss or damage, of whatsoever nature, arising from information material to our work being withheld or concealed from us or misrepresented to us by any person to whom we make information requests.*
- *In accordance with its policy, KPMG advises that neither it nor any of its partner, director or employee undertakes any responsibility arising in any way whatsoever, to any person other than Client in respect of the matters dealt with in this report, including any errors or omissions therein, arising through negligence or otherwise, howsoever caused.*
- *In connection with our report or any part thereof, KPMG does not owe duty of care (whether in contract or in tort or under statute or otherwise) to any person or party to whom the report is circulated to and KPMG shall not be liable to any party who uses or relies on this report. KPMG thus disclaims all responsibility or liability for any costs, damages, losses, liabilities, expenses incurred by such third party arising out of or in connection with the report or any part thereof.*
- *By reading our report, the reader of the report shall be deemed to have accepted the terms mentioned hereinabove.*

List of Abbreviations

APL	Asian Paints Limited	mS/cm	Milli Siemens per centimeters
ATMA	Agricultural Technology Management Agency	MSP	Minimum Support Price
BCM	Billion Cubic Meters	NITI	National Institution for Transforming India
BIS	Bureau of Indian Standards	NMAET	National Mission on Agricultural Extension and Technology
BOD	Biochemical Oxygen Demand	NPV	Net Present Value
CGWB	Central Ground Water Board	O&M	Operation and Maintenance
CGWB	Central Ground Water Board	OC	Organic Carbon
CPCB	Central Pollution Control Board	OECD-DAC	Organisation for Economic Co-operation and Development-Development Assistance Committee
CSR	Corporate Social Responsibility	OOPE	Out-of-Pocket Expenditure
CWC	Central Water Commission	pH	Potential of Hydrogen
dS/m	Deci Siemens per Meter	ppm	Parts Per Million
EC	Electrical Conductivity	PRI	Panchayati Raj Institution
FGD	Focus Group Discussion	qtl	quintal
FIG/FI	Farmer Interest Group	RFP	Request for Proposal
FPO	Farmer Producer Organization	ROI	Return on Investment
ft	Feet	SAR	Sodium Adsorption Ratio
HH	Household	SDG	Sustainable Development Goal
INR	Indian Rupees	SEZ	Special Economic Zone
IS	Indian Standards	SHG	Self-Help Group
kg/ha	Kilogram per Hectare	SRI	System of Rice Intensification
kg/ha	Kilograms per hectare	SRoI	Social Return on Investment
KII	Key Informant Interview	TDS	Total Dissolved Solids
KPI	Key Performance Indicator	TOC	Theory of Change
LPCD	Litres Per Capita Per Day	tons/acre	Tons per acre
me/L	Milliequivalents per litre	VI	Village Institution
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act	WASH	Water, Sanitation and Hygiene
MIDC	Maharashtra Industrial Development Corporation	WHS	Water Harvesting Structure
MPCE	Monthly Per Capita Expenditure	WUA	Water User Association

Contents

1.	Introduction.....	5
1.1	Background	10
1.2	Asian Paint Limited	11
1.3	About the Study	11
1.4	About the project	12
1.5	About implementing partner	13
1.6	Project Geography	13
2.	APPROACH AND METHODOLOGY	15
2.1	Our Approach	15
2.1.1	OECD-DAC.....	15
2.1.2	Social Return on Investment (SROI).....	18
2.2	Detailed Methodology	19
3.	Analysis and finding section.....	27
3.1	Demographic profile.....	27
3.1.1	Age	27
3.2	Education	27
3.3	Land holding pattern.....	28
3.4	Irrigation facility	29
3.5	Accessibility of the project across all community groups:	30
3.6	Support for water harvesting structures.....	30
3.7	Impact on the availability and accessibility	30
3.8	Impact on surface water	33
3.9	Impact on crop productivity	33
3.10	Impact on income from the agriculture	34
3.11	Impact on the environment	36
4.	MEASURING THE SOCIAL RETURN.....	38
5.1	Evidencing Outcomes	38
5.2	Establishing Impacts	39
5.3	Calculating Impact	39
5.4	SROI Results	40
5.	Way forward.....	44

Executive Summary

1. Executive Summary

Asian Paints Limited has imbibed the philosophy of transformation in its DNA and has consistently reinvented the industry. Aligning with this approach, the company's CSR efforts are focused on achieving holistic and sustainable community development. There is a strong emphasis on fostering robust trust-based relationships with communities located in the vicinity of its plants and people in the unorganized sector. These inclusive development initiatives are concentrated on health and hygiene, water conservation, skill development, and disaster management.

The Water Resource Management initiative undertaken by Asian Paints Ltd. (APL) in partnership with the National Agro Foundation (NAF) has delivered significant and measurable improvements in water security, agricultural outcomes, ecological restoration, and overall community well-being in Kasna village. Through the rejuvenation of seven ponds carried out via desilting, dewatering, restoration of inlet and outlet channels, strengthening of embankments, and upkeep of rainwater harvesting infrastructure, the project has catalyzed meaningful progress across social, environmental, and economic dimensions.

These interventions have enhanced the functionality and resilience of local water bodies, directly contributing to improved groundwater recharge, healthier ecosystems, and increased availability of water for agriculture and domestic use. The initiative stands as a demonstrable example of sustainable water management and community-centric environmental stewardship.

KPMG conducted this impact assessment covering interventions implemented in FY 2023-24, using OECD-DAC and Social Return on Investment (SROI) frameworks and this was conducted using a mixed-method approach. For this study, KPMG interacted in four villages in the Kasna district, including direct beneficiaries and indirect beneficiaries, which include farmers, community members, PRI members and staff of the implementing agency.

Project Objectives

- **Enhancement of Pond Storage Capacity:**
Achieved an additional **40,100 KL** of water-holding capacity through systematic desilting and structural improvements.
- **Groundwater Recharge:**
Enabled measurable augmentation of groundwater levels in areas surrounding the rejuvenated ponds, improving access to water for agriculture and daily needs.
- **Ecological and Structural Restoration:**
Revitalized pond ecosystems and reinforced pond embankments, ensuring long-term stability, improved biodiversity, and resilience against seasonal stresses.

Key Output Numbers

265225
Water potential
created in KL

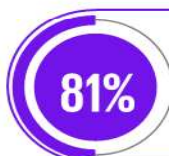
608
Beneficiary covered

Key highlights from the impact assessment study



Increase in water level in wells/borewells

In Kasna, farmers did not report major changes in groundwater levels, as the intervention focused more on canal-based irrigation rather than recharge structures. Water levels remained largely stable across seasons, showing no significant shift before and after the project.



Improved water availability for irrigation purpose post-monsoon

Farmers in Kasna shared that irrigation water was available for longer stretches after the monsoon. About 39% of respondents reported water availability for 1–2 months, 42% experienced 2–3 months, and 18% had access for 3–4 months, allowing them to plan irrigation more comfortably.



Improved water accessibility for irrigation

Irrigation accessibility improved noticeably after the intervention. Initially, 4% rated water access as "Good," 50% as "Fair," and 46% as "Bad." After the project, 46% rated access as "Good" and 48% as "Fair," while only 6% considered it "Bad." This shift shows that farmers found it easier to reach and use water for their fields.



Improved Multi-season cropping

With better access to water, 72% of Kasna farmers reported being able to carry out multi-season cropping. This helped them move beyond single-season dependence and increased productive use of their farmland.



Improved crop yield (Primary crop: Paddy)

Kasna farmers also observed better yields in their primary crop (wheat). The reported improvement was around 22%, which they attributed to more reliable irrigation and timely water availability during crop growth stages.



Increase in Agriculture income

In Kasna, 72% of respondents reported an increase in their agriculture-based income. This improvement was linked to better irrigation access, higher yields, and smoother crop planning through the season.



Impact on income from livestock

Livestock-related earnings improved for 30% of farmers in Kasna. With water becoming easier to access, households were able to maintain their animals more consistently and manage fodder needs more effectively.



Impact on the environment and biodiversity

All the respondents shared that they feel the project intervention resulted positive impact on the environment and biodiversity.



Findings basis IRECS framework

I- Impact

- The intervention in Kasna resulted in clearer improvements in irrigation reliability, with water available for longer periods after the monsoon and farmers experiencing easier access to canal-based irrigation. This supported better farming performance, including wider adoption of multi-season cropping and a crop-yield improvement of about 22%. Households also reported livelihood gains, with 72% noting higher agriculture income and 30% observing better earnings from livestock. Overall, the project helped strengthen farming stability and contributed to positive environmental outcomes shared by the community.

R- Relevance

- Majority of respondents dependent on agriculture
- Interventions such as check dams, desilting, contour trenches, and soil moisture conservation directly respond to the community's need for reliable water access and improved irrigation.

E- Efficiency

- Project completed within set timelines

C-Coherence

- Project Alignment with National Priorities-
- Directly converges with Jal Shakti Abhiyan and 'Catch
- the Rain' campaign of Ministry of Jal Shakti.
- Project align with the SDGs as mentioned, SDGs 6, SDG 1, SDG 2, SDG 15

S-Sustainability

- 100% of respondents shared that this project has brought a positive change in their life
- 100% of respondents shared good ratings for the project
- Positive impact on biodiversity due to increased surface water availability

SROI Results

1

Total CSR Investment

INR 15,035,500

2

SROI Ratio

0.7

3

Sensitivity range

₹0.67 – ₹0.88 per ₹1 invested.

The Social Return on Investment (SROI) assessment indicates that the Water Resource Management Project at Kasna has generated substantial social and economic value, delivering ₹0.70 of social benefit for every ₹1 invested. The strengthened water harvesting structures significantly improved both surface and groundwater availability, leading to notable gains in crop productivity, a 7% rise in agricultural income, better ecological conditions, and enhanced community well-being. Sensitivity analysis further confirms that even under conservative assumptions, the project continues to generate positive value, demonstrating strong resilience and long-term benefit potential.

Way forward

Going forward, the sustainability of these gains depends on establishing structured operations and maintenance systems, particularly through forming a Water User Association with clear roles and seasonal maintenance plans. Strengthening hydraulic connectivity, improving safety around pond structures, conducting regular cleaning and monitoring, and promoting the use of nutrient-rich silt in agriculture will further enhance long-term impact. These steps will ensure that the benefits created, both economic and ecological, continue to grow and remain community-owned over time.

Introduction

2. Introduction

This chapter consists of an overview of the water stress in Indian context and Asian Paints Ltd.'s CSR efforts to address the issue. It provides an overview of the project, implementing partners, project geographies, scope, and purpose of the study.

1.1 Background

Water security has reached a critical inflection point in India because of rapid development, population pressure and climate volatility. As of 2025, India sustains approximately 18% of the global population with only 4% of the world's freshwater resources.¹ The NITI Aayog Annual Report (2024-25) warned that the country's average per capita water availability is projected to decline to 1,341 cubic meters by late 2025, pushing the nation further into the "water-stressed" category (threshold < 1,700 m³) and nearing the "water-scarcity" limit of 1,000 m³.² With abundant flow in Ganga and Brahmaputra basins and much lower availability in west and south-western basins, regional disparities exist that make proper management of local demand essential.

India's water budget remains heavily dependent on a fluctuating monsoon and there are both quantity and quality concerns with groundwater. According to the Dynamic Ground Water Resource Assessment (2024) published by Central Ground Water Board (CGWB), the total annual groundwater recharge is estimated at 446.90 Billion Cubic Meters (BCM), with an annual extractable resource of 406.19 BCM. While the average extraction rate is 60.47%, regional disparities are severe. Out of a total of 6,746 assessment units, approximately 11.1% of assessment units, primarily in Punjab, Haryana, Rajasthan, and Delhi, are classified as "over-exploited", where extraction exceeds natural replenishment.³ On groundwater quality, CGWB's Annual Ground Water Quality Report 2024 highlights localized exceedances of nitrate, fluoride, and arsenic in shallow aquifers across different states, varying seasonally with recharge and agricultural inputs.⁴ The report mentions Triple Contamination Challenge in India's groundwater, referring to the three most widespread contamination threats, each stemming from different sources- nitrate (anthropogenic), fluoride (geogenic) and salinity/electrical conductivity (EC).

Surface water pollution is another important concern. Around 70% of India's surface water is contaminated, ranking the country 120th out of 122 on the global Water Quality Index. Central Pollution Control Board's latest report titled "Polluted River Stretches for Restoration of Water Quality" identifies 150 polluted stretches nationally, including 35 Priority-1 segments where Biochemical Oxygen Demand (BOD) is greater than 30 mg/L. Wastewater from various sources, intensive agriculture, industrial activities, and untreated urban runoff contribute to this pollution, compromising the health of both humans and aquatic ecosystems.

Climate change has added to the risk of water stress. In 2024-25, India experienced a 55% increase in record heatwaves, accelerating evapotranspiration and increasing the demand for irrigation which consumes over 80% of freshwater in rural areas.⁵ Because of climate change, the monsoon pattern has become erratic, characterised by long dry spells followed by intense cloudbursts. When this happens, the natural soil infiltration is affected which results in flash floods and reduced aquifer recharge.

In this challenging water landscape, the importance of watershed management becomes apparent. Watershed management is not merely a focus on water projects but involves a holistic approach to land-use practices, afforestation, and soil and water conservation. Watershed approaches work at the hydrological unit where supply, demand and quality intersect. Steps like planting trees and protecting

¹ United Nations World Water Development Report 2024, sourced at <https://unesdoc.unesco.org/ark:/48223/pf0000388948>

² NITI Aayog Annual Report 2024-25 [NITI AAYOG, India | Annual Report 2024-25](#)

³ [Press Release: Press Information Bureau](#)

⁴ CGWB Annual Ground Water Quality Report 2025 [CGWB - Publications Repository](#)

⁵ [India's Water Crisis: Why Climate-Resilient Governance is Urgent](#)

stream banks, building small check-dams and farm ponds, contouring fields to slow water, using drip/sprinkler irrigation and involving local communities in simple monitoring make more rain soak into the ground, reduce silt in reservoirs, steady flows in the dry season and improve drinking-water availability. Such a holistic approach that addresses not only water scarcity but also soil conservation and natural resource management is crucial for ensuring a sustainable and resilient water future for the country.

1.2 Asian Paint Limited

Asian Paints, headquartered in Mumbai, is one of the largest paint companies in India. Started in 1942, the company currently operates in 14 countries with products sold in over 60 markets. Asian Paints operates in various segments, including decorative paints, industrial and automotive coatings, and home décor products like furniture, lighting, and wallpapers. APL focuses heavily on research and development, which helps it keep introducing new and improved products. The company has also launched eco-friendly and sustainable paints, in line with the growing global preference for environmentally responsible solutions.

Asian Paints goes beyond its core business by actively contributing to social and environmental well-being through its Corporate Social Responsibility (CSR) initiatives. Guided by its values of trust, fairness, and care, the company focuses on creating long-term impact in communities around its operations. Its programmes address key areas such as water conservation, healthcare and skill development, leveraging its expertise to deliver meaningful change. The objective is to empower marginalised communities and improve quality of life by tackling critical social, economic, and environmental challenges. These efforts are closely aligned with the United Nations Sustainable Development Goals (SDGs), particularly, Goal 1 (No Poverty), Goal 2 (Zero Hunger), Goal 3 (Good Health and Well-being), Goal 6 (Clean Water and Sanitation), Goal 8 (Decent work and economic growth), Goal 11 (Sustainable cities and communities) and Goal 17 (Partnership for the goals).

Asian Paints runs several initiatives in water conservation, health and hygiene, skill development, and disaster relief. Its flagship Water Stewardship Program called the Watermark program, focuses on improving water availability and security in communities around its plants. The program combines supply-side measures like pond cleaning, desilting, check-dam construction and renovation, canal lining, and integrated watershed management with demand-side interventions such as micro-irrigation, System of Rice Intensification (SRI), and sustainable farming practices. These efforts aim to restore water bodies, reduce soil erosion, and recharge groundwater, while promoting efficient water use in agriculture. By adopting a holistic approach that includes soil health and pest management, Asian Paints helps strengthen ecosystem services and improve livelihoods.

1.3 About the Study

To understand the impact created by its interventions implemented in FY 2023-24, Asian Paints Ltd. empanelled KPMG to facilitate the impact assessment of its **Participatory Water Resource Management project**. The objective of this study was to assess the impact of these water stewardship activities on the beneficiaries and stakeholders covered under the projects. The study aimed to understand the immediate, medium, and longer-term impact of the interventions on the targeted beneficiaries:

The duration considered for this study is financial year 2023-24.

Impact on Access & Availability of Surface & Ground Water

- To understand the impact on ground-water recharge based on well recharge data
- To understand the duration of water availability post-monsoon (in months)
- To understand the impact of water accessibility,

	availability & livelihood of the farmers
Impact on Potable Water	- To assess the impact on drinking water availability and quality due to rainwater water harvesting structures. - To assess impact on other areas like drudgery reduction, drop in health issues around the drinking water etc.
Impact on Agricultural Land & Practices	- To assess impact on season wise cropping pattern led by the availability of water in the area. - To assess impact on soil health due to balance use of fertilizer because of adoption of recommendations of soil testing report and application of organic fertilizers - To assess impact on knowledge level of the farmers about improved agricultural practices.
Impact on Farmer's Livelihood	- To assess impact of water availability on crop production (yield/acre) - To assess impact of water availability on productivity of livestock animals - To assess impact on net return/acre per farmer. - To assess the impact on livelihood opportunities created through the programme.
Other Impact Areas Apart from Water Rejuvenation & Canal Lining	- To assess knowledge and adoption level of water efficient agricultural and risk mitigation farm practices. - To assess level of ownership by the community in the asset created: Whether community-based institutions had been formed and taking care of maintenance aspects of the assets created under the project.

1.4 About the project

Asian Paints' Water Stewardship Programs signifies the company's dedication to sustainable practices and responsible corporate citizenship. By addressing the challenge of water scarcity through community partnerships and integrated initiatives, Asian Paints aims to make a positive impact on both its operations and the communities it serves.

The Water Resource Management Project at Kasna, focuses on rejuvenating seven village ponds and maintaining rainwater harvesting structures to enhance water availability and ecosystem health. Through interventions such as dewatering, jungle clearance, desilting, and brick lining of embankments, the project aims to restore pond ecosystems and improve water retention capacity. This initiative was designed to enhance water security, reduce soil erosion, and create long-term benefits for rural communities by promoting sustainable water resource practices.

Objectives of the project are:

- To increase the capacity of ponds by 40,100 KL
- To augmentation the groundwater level around the ponds

- To restoration the pond ecosystem and enhance the strength of pond embankments

1.5 About implementing partner

The National Agro Foundation (NAF), founded in 2000 by Bharat Ratna awardee and a prominent figure in Green Revolution, Mr. C. Subramaniam, is a Public Charitable Trust committed to driving a rural transformation centered on agriculture and the upliftment of small and marginal farmers. Guided by the principle of inclusive growth, NAF adopts a holistic “Soil to Market” approach, evolving from Mr. Subramaniam’s visionary “Seed to Grain” philosophy. From its humble beginnings, NAF has grown into a dynamic, professional organization delivering innovative solutions that have significantly impacted rural communities. Through collaborations with government bodies, corporates, and other stakeholders, NAF has implemented programs addressing critical agricultural and rural development challenges, integrating advanced technologies, tailored training, and capacity-building initiatives. With strong research and development efforts, NAF has reached over 875,000 farmers across 6000+ villages in 10 states, reinforcing its commitment to sustainable development. Its partnerships span government and non-government organizations, academic institutions, financial bodies, and corporates. In association with Asian Paints Limited (APL), NAF is actively executing CSR projects focused on water resource development in Telangana, Uttar Pradesh, Karnataka, and Tamil Nadu. This strategic alliance aims to rejuvenate water bodies, enhance farmer livelihoods, and promote efficient natural resource management. Under this collaboration, NAF ensures timely execution of activities within budget, while APL provides essential technical and financial support, fostering a sustainable and inclusive development model that delivers tangible benefits to marginalized communities.

1.6 Project Geography

Kasna is a rapidly developing locality situated in Greater Noida, within Gautam Buddha Nagar district, Uttar Pradesh. The district has witnessed significant urbanization, industrial expansion, and population growth over the past decade. As of 2026, Gautam Buddha Nagar’s estimated population stands at 19.93 lakh, marking a substantial 20.93% increase from the 2011 census, reflecting strong demographic pressure on land and water resources.

Kasna itself is a compact settlement spread across roughly **0.5 km²**, with a population of **1,057 residents** as of 2020, and a population density of 2,095 persons per km². The village exhibits balanced gender distribution with 567 males and 490 females. Strategically located, it lies close to the Indira Gandhi International Airport (approximately 37.79 km) and is well connected through nearby railway stations such as Ajaibpur (5.68 km).

Greater Noida, including Kasna, has emerged as a major technology and industrial hub. The district has seen an increase in data centre development, industrial clusters, educational institutions, and logistics parks. However, this growth has intensified groundwater stress, with multiple reports highlighting rapid depletion of water tables across the district due to high extraction, especially in industrial zones. In 2025, investigations revealed that Greater Noida, including areas near Kasna, was facing falling groundwater levels, often forcing residents and industries to rely on tanker or borewell water, with borewell depths plunging up to 600 feet in certain pockets.

Kasna lies within an active industrial and educational corridor, surrounded by sectors such as Knowledge Park, Omega, Phi, and Chi sectors of Greater Noida. The locality benefits from modern infrastructure, including major highways (NH-248BB, NH-44), schools, healthcare centres, and proximity to major commercial and government establishments. The demographic and economic profile of Kasna reflects a mix of traditional village communities, predominantly Gujar families living alongside newer populations associated with urban employment and industry expansion.

Approach & Methodology

3. APPROACH AND METHODOLOGY

The chapter provides details on the research design and methodology adopted for the impact assessment. It includes description of the key activities, data collection methods, and sampling strategies, employed to ensure the reliability and validity of the findings.

2.1 Our Approach

The study applied the OECD DAC and SROI frameworks to design the evaluation and measure the social returns and impacts generated by APL's CSR projects on water stewardship. The OECD DAC framework is a globally recognized approach for assessing the effectiveness of social development programs, while the SROI methodology goes beyond traditional economic metrics to capture broader social and environmental value.

A structured four-phase methodology was adopted to ensure a comprehensive evaluation. This approach integrated the principles of both OECD DAC and SROI throughout the process, enabling a robust assessment of outcomes and the overall impact of the program.

Phase I: Consulting and Scoping	Phase II: Research Design	Phase III: Data Collection	Phase IV: Analysis and Reporting
Kick-off meeting	Development of Impact Map	Development of field visit plan	Analysis of collected data using OECD DAC framework and estimating the SROI of the projects
Desk review of documents and reports related to the program	Mapping the stakeholders	Field visits and stakeholder interactions	Development of draft and final report
Determining the scope of the study	Designing sampling strategy and data collection tools		Presentation to APL Team

2.1.1 OECD-DAC

The Organization for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) introduced its evaluation criteria in 1991 as a structured framework for assessing development programs, whether ongoing or completed. This approach enables a systematic review of multiple dimensions of a program, offering both qualitative insights and quantitative measures of impact. The framework is widely recognized for its ability to evaluate effectiveness and relevance in social development initiatives. It is built around the following six key criteria, which form the basis for comprehensive program assessment under the OECD-DAC guidelines:



These evaluation criteria have been defined below along with illustrative questions:

Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
Relevance	A measure of the extent to which the intervention objectives and design respond to beneficiaries, global, country, and partner/institution needs, policies, and priorities, and continue to do so if circumstances change. ▪ To what extent are the objectives of the project still valid? ▪ Are the activities and outputs of the project consistent with the overall goal? ▪ Are the activities and outputs of the project consistent with the intended impacts and effects?	<i>Commitments of the stakeholders are integrated into Project design and planning</i>
Effectiveness	A measure of the extent to which the intervention achieved, or is expected to achieve, its objectives, and its results, including any differential results across groups. ▪ To what extent were the objectives achieved / are likely to be achieved? ▪ What were the major factors influencing the achievement or non-achievement of the objectives?	<i>Achieved cross-cutting objectives during project implementation</i>

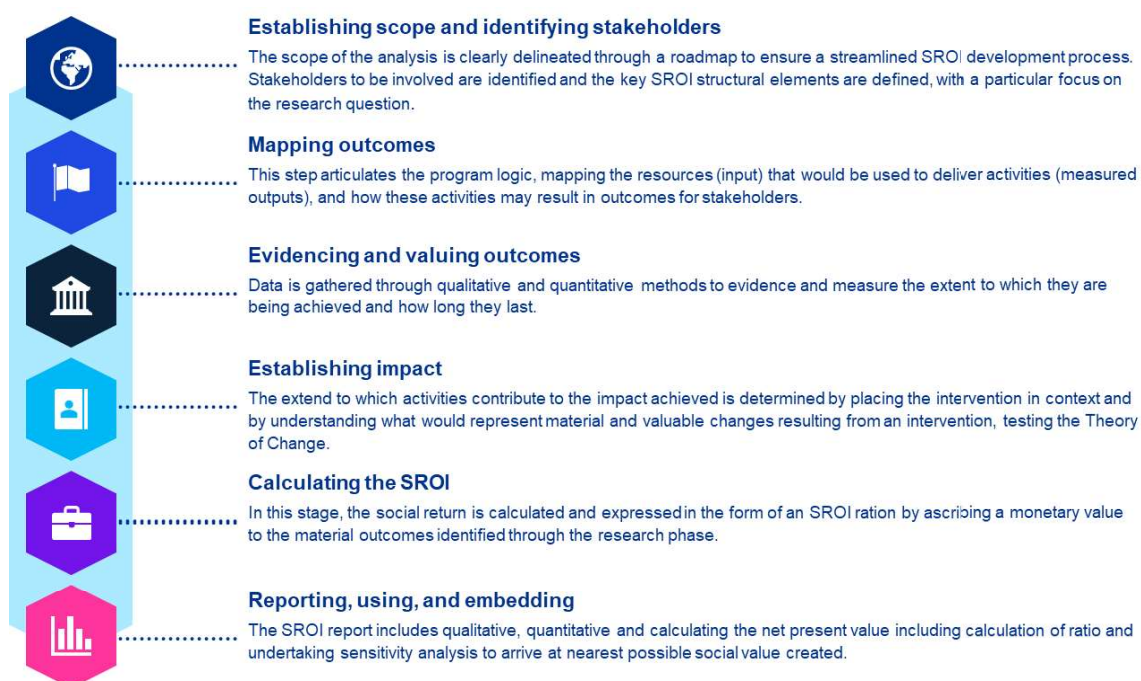
Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
Efficiency	A measure of the extent to which the intervention delivers, or is likely to deliver, results in an economic and timely way. ▪ Were activities cost-efficient? ▪ Were objectives achieved on time? ▪ Was the project implemented in the most efficient way compared to alternatives?	<i>Resources are provided and efficiently used for participation of all stakeholders</i>
Impact	A measure of the extent to which the intervention has generated or is expected to generate significant positive or negative, intended, or unintended, higher-level effects. ▪ What has happened as a result of the project? ▪ What real difference has the activity made to the beneficiaries? How many people have been affected?	<i>Achieved real and long-lasting positive changes in the lives of intended beneficiaries</i>
Sustainability	A measure of the extent to which the net benefits of the intervention continue or are likely to continue. ▪ To what extent did the benefits of a project continue after donor funding ceased? ▪ What were the major factors which influenced the achievement or non-achievement of sustainability of the project? ▪ What can be some of the innovative ways to make the project sustainable in the long run?	<i>Likelihood that project achievements will continue after project</i>
Coherence	A measure of the extent to which the intervention is compatible with other interventions in a country, sector, or institution. ▪ Does the project address the synergies and interlinkages between the intervention and other interventions in	<i>The extent to which other interventions (particularly policies) support or undermine the intervention and vice versa.</i>

Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
	the same organisation and in the same sector/policy landscape? Does it weaken or enhance the impact of any current programs or policies? Does the program lead to duplication of efforts?	

2.1.2 Social Return on Investment (SROI)

Social Return on Investment (SROI) is a structured approach designed to capture and measure the broader value created by an investment. It covers the social, environmental, and economic benefits that traditional cost-benefit analyses often overlook. This methodology assigns monetary values to social and environmental outcomes, enabling organisations to calculate how much value is generated for every rupee spent on a program. Unlike conventional assessments, SROI focuses on changes that matter most to stakeholders, providing a clear picture of the social impact of projects and policies.

By using SROI, organisations can demonstrate the social value their initiatives deliver, gain deeper insights into stakeholder impact, and integrate these findings into strategic decision-making. It is fundamentally about value rather than just financial returns and can be applied to an entire organisation or a specific program. The approach uses a theory of change or impact map to outline how interventions lead to measurable outcomes, expressed in monetary terms, allowing for a benefit-to-cost ratio calculation. SROI combines qualitative, quantitative, and financial data, along with case studies, to inform future planning. Its key advantage lies in going beyond identifying outcomes to valuing them and calculating their social worth. Steps of a SROI are as follows:



Setting the Scope 	Identification of stakeholders including beneficiary group, finalising the scope- setting the boundary of what is going to be considered for evaluative SROI - stakeholders including beneficiaries, impacts, program period, etc.
Mapping Outcomes 	Creating impact map, identifying investments, and valuing inputs, identifying outcome and indicators for monitoring / evidencing outcomes
Evidencing Outcomes 	Collecting and analysing outcome data and establishing how long the outcome will last
Establishing Impacts 	Identifying and valuing financial proxies, adjusting outcomes using deadweight, displacement, attribution and drop off, calculating the impact
Calculating SROI 	Programming the value of outcome into future based on the duration for which the impact will last, calculating the net present value including calculation of ratio and undertaking sensitivity analysis.

The process of calculation of SROI largely focuses on deadweight, displacement, attribution, and drop-off in association with any outcomes achieved. All these aspects are generally expressed as percentages and these percentages are applied to the financial proxy of each outcome to arrive at the total impact for the outcome. Therefore, we used a customised framework involving a combination of OECD-DAC and SROI to obtain a full picture of the impact created by APL.

2.2 Detailed Methodology

The following section discusses the methodology being employed by KPMG in this impact assessment, which has been broken down into four phases.

PHASE I: CONSULTING AND SCOPING

Activity 1: Inception Meeting

The initial step involved a scoping and kick-off meeting between the KPMG team and APL to finalize the work plan. The key tasks, timelines, and approach for the engagement were discussed. A detailed project plan was prepared by KPMG to guide the execution.

Activity 2: Desk Review and Stakeholder Engagement

The team conducted a thorough review of documents provided by APL, including concept notes, annual reports, and progress or closure reports. Secondary research was also conducted to gain an in-depth understanding of the project locations and interventions. Additionally, discussions with APL and implementing partners helped clarify KPIs, map external stakeholders, and define the sampling strategy and size.

PHASE II: RESEARCH DESIGN

Activity 1: Developing the Impact Map / Theory of Change

An impact map based on the theory of change was created to define the project's outcome and impact parameters. This map serves as a logical framework that illustrates how inputs (actions or activities undertaken) lead to outputs (immediate changes resulting from interventions), which then drive outcomes (short- or medium-term effects linked to those outputs) and ultimately generate impact (positive or negative, intended or unintended, direct or indirect) arising from the interventions.

Refer next page for the impact map

Activity 2: Stakeholder Mapping and Sampling strategy

Stakeholder mapping is the process of identifying all the stakeholders involved in a project and their roles and responsibilities on one map. The main benefit of a stakeholder map is to get a visual representation of all the people who can influence the project and how they are connected. Stakeholders who experience change, whether positive or negative because of the interventions carried out were considered for the study. Furthermore, their pertinence to the scope of the study and relevance to the overall analysis were assessed.



Sampling of stakeholders for engagement was done based on the materiality of the stakeholder and the extent of the impact on the stakeholder. Considering the overall outreach of the project as nearly 1400 beneficiaries, the statistically significant sampling has been derived using the method of 95 percent confidence level and five percent margin of error. Additionally, we have taken extra sample stakeholder to derive accurate social return on investment ratio. The stakeholder-wise mode of interaction has been detailed out below:

Stakeholder type	Universe	Sample	Actual coverage
Farmers			
Benefitted due to water intervention	1400		100
PRI Members	-	100	6

Stakeholder	Reason for Inclusion	Data collection tool
Farmers who have been benefitted due to water harvesting related interventions	Since the farmers are the direct beneficiaries of this study hence it is important to include them to understand if the objectives of this program have been met.	Structured Questionnaire: were developed In-depth Interview: were also undertaken
Farmers who have been benefitted due to agriculture related interventions	Agriculture is a key intervention, Hence, it is critical to get their perspective of the beneficiaries	Structured Questionnaire: were developed for Teachers In-depth Interview: were also undertaken
Community members benefitted due to potable drinking water	The community members from the intervention area have been a key stakeholder and receiver of the impact hence, it is important to get their perspective.	Semi-structured Questionnaire: were developed for Teachers
WUA members	In order to understand the governance mechanism established over the water usage, these stakeholders are important	Structured Questionnaire: were developed In-depth Interview: were also undertaken
PRI Members and government officials	In order to understand broad perspective of the community members through elected members	Structured Questionnaire: were developed In-depth Interview: were also undertaken
Stakeholders excluded from the study		
Community members from periphery of intervention villages	Excluded - It was understood from the implementing team that due to no direct intervention, these stakeholders will remain outside the scope of the intervention	Not applicable

The study includes three categories of beneficiaries: primary, secondary, and tertiary. Farmers, as the direct and intended recipients of project interventions, constitute the primary beneficiaries. Their family members and other community stakeholders constitute the secondary beneficiaries. Additionally,

interactions were conducted with institutional stakeholders such as Panchayati Raj Institution (PRI) representatives and government officials, who constitute the tertiary stakeholders.

Activity 3: Development of Data Collection Tools

The study adopted a mixed-methods approach, combining quantitative and qualitative techniques for data collection and analysis. Initially, a comprehensive desk review was conducted to assess existing knowledge and identify gaps for further investigation. Following the literature review and research design, survey instruments were created based on the impact map to gather both quantitative and qualitative data from a sample population using offline methods. These tools captured participants' experiences, attitudes, and behaviors. Additionally, semi-structured interviews were designed for key stakeholders, including experts, PRI members, government officials, community leaders, and practitioners, to gain deeper insights into the research topic and emerging best practices. All tools were aligned with program objectives and the scope outlined in the RFP, with additional questions incorporated to enrich the case study. The tools developed include:

- Tools for individual interactions
- Tools for focus group discussions
- Tools for other key stakeholder interactions
- Development of a research and data collection plan

Impact map

Stakeholder	Project Objectives	Inputs	Output	Outcome	Evidence Indicator
Farmers, Community members FPO/VI/WUA	To promote basic supplementary irrigation facilities by creating and strengthening water harvesting structures and increase water storage and availability;	Construction and refurbishment of check dams, ponds and other WHS, Capacity building, Access to Finance, Time	Number of families reached out / availed benefits of check dams and other water harvesting structures	Increase in agricultural production	Changes in availability of cultivated land Changes in cropping pattern by farmers Changes in multi-seasonal cropping
				Access to secure livelihood	Changes in the input cost required for agriculture
				Creation of sustainable water supply	Changes in the irrigation fed agriculture, changes in the availability of water, reduced dependency on the other sources of water
				Creation of employment opportunities	Changes in the labour employment by the local population
	To improve and stabilize surface soil to convert unirrigated land to irrigated land.		No. of families benefited from Group wells & Borewell	Access to potable water	Reduction in water borne diseases (Improvement in health), reduction of drudgery (time saved)
				Access to secure livelihood	Changes in the input cost required for agriculture, adoption of improved agriculture practices
	To organize and strengthen the village institutions around water harvesting and related livelihoods				

Stakeholder	Project Objectives	Inputs	Output	Outcome	Evidence Indicator
			No. of village institutions benefited	Establishing community stewardship over the common water resources	Community led governance of its resources, effective operations, and maintenance of water structures
			Increase in water storage capacity	Improved biodiversity in the catchment area	Increase in biomass in command area, Improved bio-diversity – presence of bird and animal species, Improved soil health, Reduced soil pollution.

PHASE III: DATA COLLECTION

Activity 1: Development of Field-Visit Plan

Stakeholder interactions were planned in coordination with APL and the project implementing partner. A detailed timeline was prepared for the field visits, with the implementing partner providing support for scheduling meetings, mobilizing stakeholders, and arranging translators where necessary. The team also consulted with the partner to anticipate potential challenges such as language barriers, cultural sensitivities, or safety concerns. These measures ensured that the data collection process was efficient and conducted in an ethical manner.

Activity 2: Conducting Field Visits

Stakeholder consultations were carried out through individual interviews, focus group discussions (FGDs), and key informant interviews (KII). To ensure effective communication, KPMG included facilitators with prior experience and proficiency in local language. The data collection team underwent training and sensitization sessions to engage stakeholders appropriately. Before the main exercise, tools were pre-tested. Throughout the process, data collection was closely monitored for completeness, accuracy and consistency, including backchecks and triangulation.

PHASE IV: ANALYSIS AND REPORTING

Activity 1: Data analysis and preliminary findings

During the data analysis, both qualitative and quantitative analysis were conducted on the data collected. To enhance accuracy and reliability, the findings from the quantitative data collected on the ground were triangulated to an extent. The collected information was thoroughly analysed on a location disaggregated basis, allowing for a detailed understanding of the specific areas involved. To calculate the social returns and impacts resulting from the program, the SROI framework and OECD-DAC framework were utilized. Additionally, a sensitivity analysis was conducted to examine the results of the ROI. The data and observations obtained during the primary data collection phase and document review were carefully analysed to inform report writing. The findings were further scrutinised basis the assurance standards for SROI assessments.

Activity 2: Development of Report and Presentation

A comprehensive report was prepared for Asian Paints Limited at the enterprise level, capturing key observations, analyses, findings, and recommendations from the assessment. The report adhered to OECD-DAC and SROI framework guidelines to ensure accuracy and relevance. A draft version was shared with APL for review and feedback prior to finalisation. The finalised report was then presented to APL's leadership. Additionally, separate project-level reports were developed, providing detailed data and analysis. All collected data and corresponding analyses were also shared with APL.

Analysis and Findings

4. Analysis and finding section

3.1 Demographic profile

Age

The age-wise distribution of respondents provides important insights into how different demographic groups perceive and experience the benefits of water conservation efforts, particularly the construction of ponds in the villages. The largest proportion of respondents (45%) falls within the 25 to 40 years age group, reflecting the active participation of younger and economically productive individuals who are directly involved in agriculture and related livelihoods. Their responses indicate a strong connection between improved water availability and their day-to-day farming activities. The 40 to 60 years age group constitutes 30% of the respondents and represents individuals with significant household and agricultural responsibilities. This group's feedback highlights their deeper understanding of water scarcity challenges and the comparative improvements observed after the creation of ponds. Meanwhile, 25% of respondents are above 60 years of age, and although smaller in proportion, they offer valuable long-term perspectives. Their insights help contextualize the changes in water availability over the years, emphasizing the positive impact of pond construction on groundwater recharge and water storage. Overall, with nearly three-fourths of respondents between 25 and 60 years, it is evident that the economically active population perceives substantial benefits from the water conservation structures, while the contributions from senior community members add credibility by highlighting historical improvements and long-term environmental change.

Age in years	25 to 40	40 to 60	Above 60
	45%	30%	25%

Education

The educational profile of the respondents shows a diverse range of schooling levels. About 14% have no formal education, while 12% studied up to the 5th standard and 8% up to the 8th standard, indicating a segment with limited formal learning. A larger portion, 20%, has completed education up to the 10th standard. The highest share, 34%, has studied up to the 12th standard, showing a strong presence of secondary-level education in the community. Additionally, 12% of respondents have pursued education beyond the 12th standard, reflecting a growing trend toward higher education among the population.

No formal education	Up to 5th	Up to 8th	Up to 10th	Up to 12th	Beyond 12th
14%	12%	8%	20%	34%	12%

Income

Primary source of income

The primary source of income for the majority of respondents is agriculture, accounting for 86%, showing a strong dependence on farming for livelihood. A smaller portion, 10%, is engaged in jobs, while 4% earn through small businesses. The data clearly indicates that agriculture remains the dominant economic activity in the community, with minimal diversification into non-farm sectors.

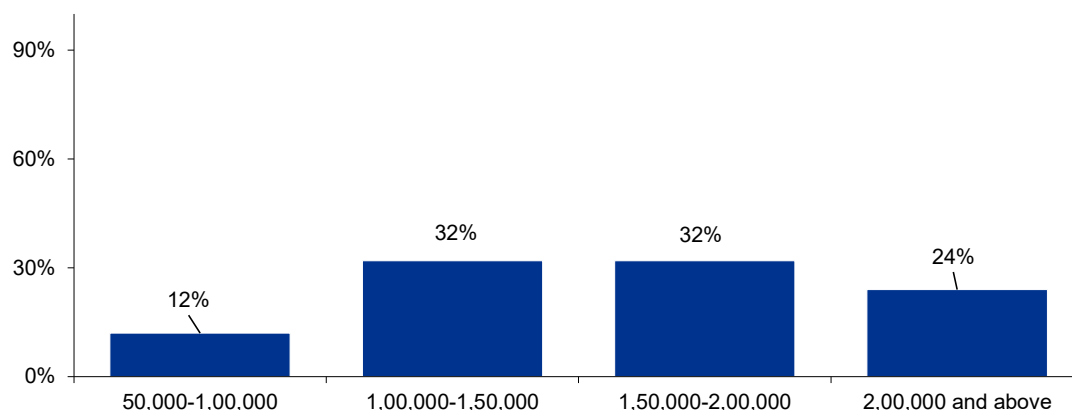
Primary source of income	Percent of Primary source of income
Agriculture	86%
Small business	4%
Job	10%

Secondary sources of income

The secondary income profile of the respondents shows a diversified mix of livelihood activities. Livestock rearing is the most common supplementary source, contributing 43%, indicating its importance in strengthening household resilience. This is followed by small businesses at 20% and jobs at 18%, reflecting moderate engagement in non-farm activities. Additionally, 16% of respondents work as labourers, while 2% depend on migration-based income. Overall, the data highlights that while agriculture remains primary, households rely on multiple secondary sources to stabilize their earnings.

Household income

Household income (unit in INR)

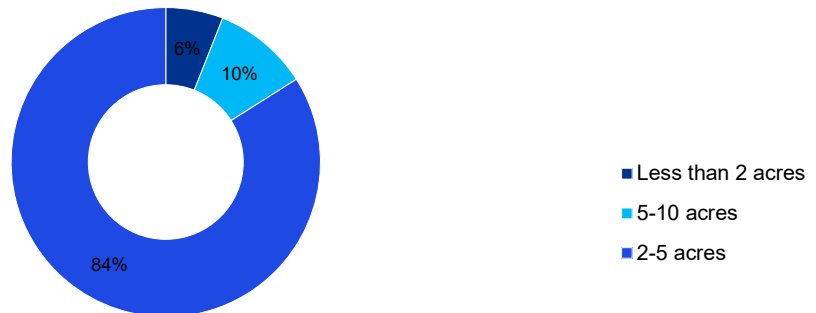


The household income distribution shows that a significant portion of respondents falls within the middle-income categories. About 32% of households earn between ₹1,00,000–1,50,000, and another 32% fall in the ₹1,50,000–2,00,000 range, indicating a concentrated income band for the majority. Additionally, 24% of households report incomes above ₹2,00,000, reflecting a relatively higher-earning segment within the community. Meanwhile, 12% earn between ₹50,000–1,00,000, representing the lower-income group. Overall, most households maintain moderate income levels with a notable proportion achieving higher annual earnings.

Land holding pattern

The distribution of cultivable land among respondents shows that the majority, 84%, possess 2 to 5 acres of agricultural land, indicating predominantly small to medium landholdings within the community. A smaller segment, 10%, owns 5 to 10 acres, representing relatively larger farming units. Only 6% of respondents have less than 2 acres, reflecting a limited presence of marginal farmers. Overall, the data suggests that most households operate on moderately sized agricultural plots, supporting a stable but small-scale farming structure.

Land holding pattern



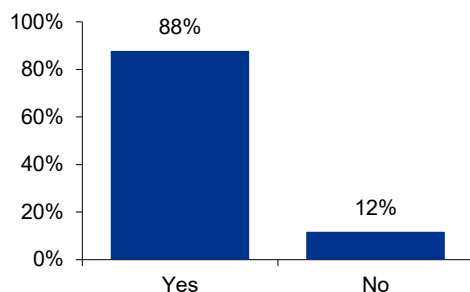
Crop profile

Season	Crops
Kharif	Paddy, Sugarcane
Rabi	Wheat, Mustard
Summer (Zaid)	Sugarcane (continues as a year-round crop)

The cropping pattern in Kasna reflects a typical agrarian structure of western Uttar Pradesh, where Paddy and Sugarcane dominate the Kharif season, while Wheat and Mustard are the primary Rabi crops. Sugarcane continues into the Summer (Zaid) season, highlighting its nature as a long-duration crop and its importance as a stable cash crop for farmers. Overall, the pattern shows a balanced mix of food grains and commercial crops, supporting both subsistence needs and income generation for local households.

Irrigation facility

Irrigation facilities?



The majority of respondents in Kasna have access to irrigation facilities, with 88% reporting the availability of irrigation on their farms. This indicates strong water accessibility and suggests that most farmers are able to cultivate their crops reliably across seasons. Only 12% of farmers lack irrigation, highlighting a relatively small segment that remains dependent on rainfall or external water sources. Overall, the data reflects a well-supported agricultural environment with predominantly

irrigated farming.

3.2 Accessibility of the project across all community groups:

100% respondents reported-



Accessibility for all social groups – class, caste, race, religion, differently abled, elderly, etc.

The analysis reflects the level of inclusivity in the project's activities. The KPIs, accessibility for all social groups, is a critical measure of the project's social inclusivity, and the data indicate that the project has performed well, with a 100% accessibility rate. This indicates that the project has taken the necessary measures to ensure that all social groups, regardless of caste, class, race, religion, or other factors, have equal access to the support interventions. This demonstrates the

project's commitment to social equity and inclusion. By improving accessibility for all social groups, the project can ensure that the benefits of its activities are shared equitably, promoting sustainable development in the region.

3.6 Support for water harvesting structures

As part of the project evaluation, consultations were conducted with project beneficiaries to obtain feedback on the interventions. During these discussions, all respondents reported experiencing positive outcomes from the water-related activities implemented in the project area, indicating a broad level of satisfaction with the project interventions.

The consultations also revealed that beneficiaries were actively engaged during the planning and implementation stages of the project, and that their inputs were considered in decision-making processes. This reflects the participatory approach adopted by the project, which supports community ownership and contributes to the long-term sustainability of the interventions.

During the implementation phase, the implementing partner conducted regular awareness and motivation sessions to engage farmers who initially showed limited interest. These efforts helped address concerns, build understanding of the project benefits, and encourage community participation in project activities.

Impact Findings

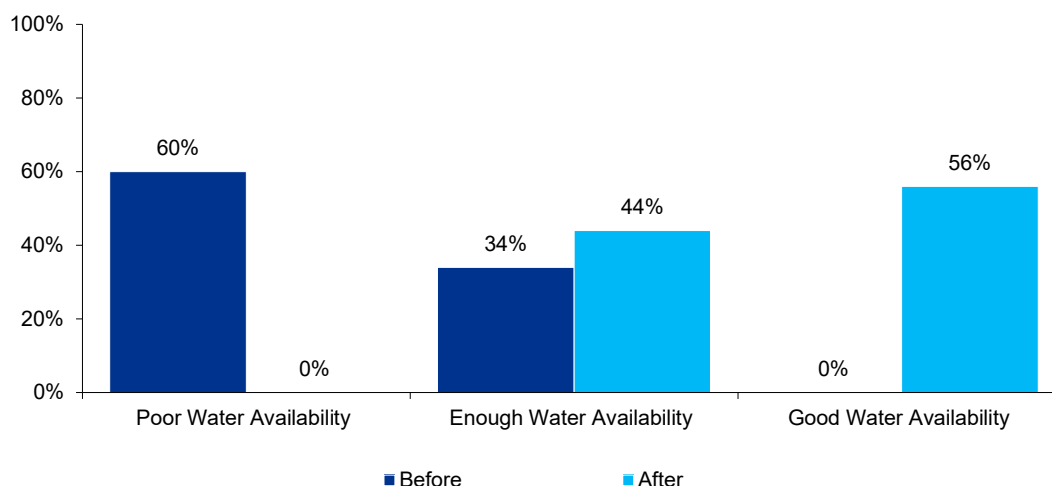
3.7 Impact on the availability and accessibility

The comparison of water availability ratings before and after the project reveals a significant shift in community experience. Before implementation, the situation was largely unsatisfactory, with a majority of respondents rating water availability as either very poor or poor. In fact, 28% rated it as 1, 32% as 2, and 34% as 3, while no one rated it good or excellent. This indicates that water scarcity was a widespread concern and reliable access was limited for most households, directly affecting agricultural and daily needs.

After the project, the ratings display a complete turnaround. A substantial portion of respondents 44% and 46% rated water availability as 3 and 4 respectively, and 10% even rated it as 5, marking it as excellent. Notably, none of the respondents rated water availability as poor or very poor post-project. This shift demonstrates that the intervention not only addressed water shortages but significantly improved reliability and accessibility, allowing households and farmers to benefit from more consistent water supply throughout the year.

Overall, the visible improvement in ratings reflects the effectiveness of the water for livelihood project in enhancing water security in the community. The transition from low ratings to overwhelmingly positive

Perception comparison of Water Availability: Pre- and Post-Intervention



responses suggests that the project directly contributed to reducing water stress and increasing user satisfaction. These positive changes are likely to support improved agricultural productivity, reduce vulnerability to water scarcity, and enhance overall resilience of households in the area.

The intervention has had a positive impact on groundwater access for a majority of respondents, with 66% reporting increased water availability in their wells or borewells. This indicates that the project has effectively improved recharge and water retention in the area. However, 34% of respondents did not observe an increase, suggesting that certain households or locations may still be facing groundwater limitations due to localized hydrogeological variations or slower recharge response. Overall, the results show that the intervention has substantially enhanced water availability for most beneficiaries, though targeted follow-up may be needed for areas that did not experience similar improvements.

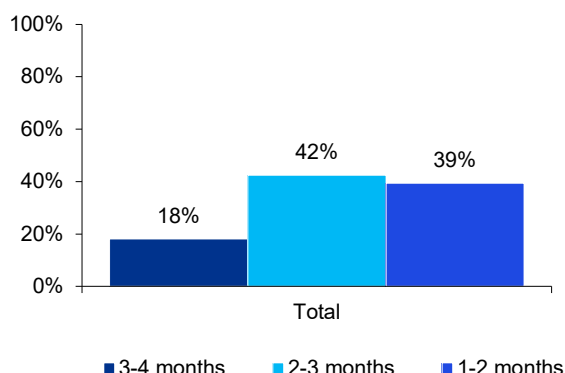
66%

Of the respondents shared that they observed increase in water level in their well or borewell

81%

Of the respondents shared that they have observed an increase in water levels in wells or bore well for minimum for duration of two months

Increase in duration of water availability in wells or borewells



Among those who reported improved well/borewell availability, the most common duration is 2–3 months (42%), followed by 1–2 months (39%), with only 18% experiencing 3–4 months. On average, the gain lasts ~2.3 months, suggesting the intervention provides a meaningful but still season-bound boost. To extend this window, consider pre-monsoon desilting, inlet/outlet maintenance, adding recharge pits/field bunds, and promoting micro-irrigation to stretch water availability into late Rabi and early summer.

Well observation by the farmers

Season		Depth Foot	% Change
Summer	Pre intervention	37	18%
	Post intervention	30	
Monsoon	Pre intervention	5	0%
	Post intervention	5	
Winter	Pre intervention	31	6%
	Post intervention	29	

The respondents' observations show a meaningful improvement in groundwater levels after the integrated watershed management interventions. In the summer season, the depth to water decreased from 37 feet to 30 feet, indicating an 18% rise in water availability an important change during the driest part of the year. Monsoon readings remained constant at 5 feet, which is normal since groundwater tables are naturally high during peak rainfall. In winter, the depth reduced slightly from 31 feet to 29 feet, reflecting a 6% improvement. These seasonal trends, particularly the strong gains in summer, suggest that watershed measures such as recharge structures, soil and water conservation works, and improved infiltration practices have effectively enhanced groundwater recharge. Overall, the data indicates that integrated watershed management has strengthened water security by improving groundwater retention and availability during critical non-monsoon periods.

3.8 Impact on surface water



During the Focus Group Discussion (FGD), it was observed that in locations where excavation works were undertaken, surface water availability has improved and is sustained for a longer duration. As reported by a PRI member, surface water in these areas is now available until the months of March–April, whereas earlier it was available only up to December. Although this surface water is not directly used by households for domestic purposes, it is utilized by some villagers for livestock maintenance.

20% of the respondents shared that they are taking water directly from the surface water or water from water harvesting structures using electric water pumps.

It was noted during FGD those who are extracting water from water harvesting structures are extracting water as per their agricultural need; there is no fixed pattern of extracting water from these structures.

3.9 Impact on crop productivity

The increase in water availability following the intervention has had a direct, positive impact on crop productivity across all major crops grown in the area. Mustard shows a 10% yield increase, reflecting improved moisture availability during critical growth stages, which typically enhances flowering and pod formation. Rice demonstrates a more substantial rise of 22%, which is consistent with its high water requirement. Better and more reliable irrigation ensures proper tillering, panicle formation, and grain filling. The most notable improvement is seen in sugarcane, where yields increased by 106 quintals per acre (26%), indicating that the crop significantly benefited from the enhanced and prolonged water supply, resulting in thicker canes and greater biomass accumulation.

Overall, these yield improvements strongly suggest that the intervention has not only resolved water scarcity but also enhanced crop performance by ensuring timely and adequate irrigation, leading to healthier crop growth and higher productivity. The increases across mustard, rice, and sugarcane collectively demonstrate the crucial role water availability plays in stabilizing and boosting agricultural outputs in Kasna.

Crop	Pre Intervention - Average yield per acre	Post Intervention - Average yield per acre	Change	%
Mustard	10	11	1	10%

Paddy	18	22	4	22%
Sugarcane	400	506	106	26%

3.10 Impact on income from the agriculture

Income pre intervention	Income post intervention	Change	Increase
118400	126818	8418	7%

Unit INR

The rise in household income from ₹118,400 pre-intervention to ₹126,818 post-intervention, reflecting an increase of ₹8,418 (7%), indicates a positive economic impact resulting from improved water availability. With more reliable access to water for irrigation, farmers were able to achieve better crop yields, reduce crop losses, and cultivate more efficiently across seasons. This improvement directly translates into increased agricultural output, as seen in the enhanced productivity of crops like sugarcane, rice, and mustard.

The 7% increase, though moderate, is significant for small and medium farming households as it suggests greater stability in earnings, reduced dependence on external water sources, and improved resilience against seasonal water stress. This rise also implies improved cash flow for essential household needs, investments in inputs, and potential reinvestment into farming activities.

Overall, the income uplift demonstrates that enhanced water availability plays a pivotal role in strengthening farm-based livelihoods, leading to measurable economic gains for the community.

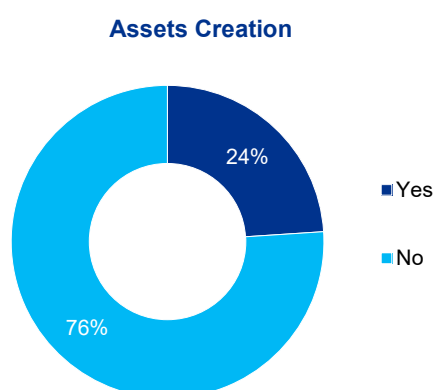
3.11 Impact on animal husbandry

Six percent of the respondents reported that they own livestock. Among these respondents, all indicated that increased water levels have had a positive impact on their livestock. They noted that the availability of surface water has helped improve livestock hygiene. They have reported increased income due to increased water availability

Average income from livestock monthly, Pre-intervention	Average income from livestock monthly, Post-intervention	Change	% Increase
1,667	2,167	500	30%

Unit INR

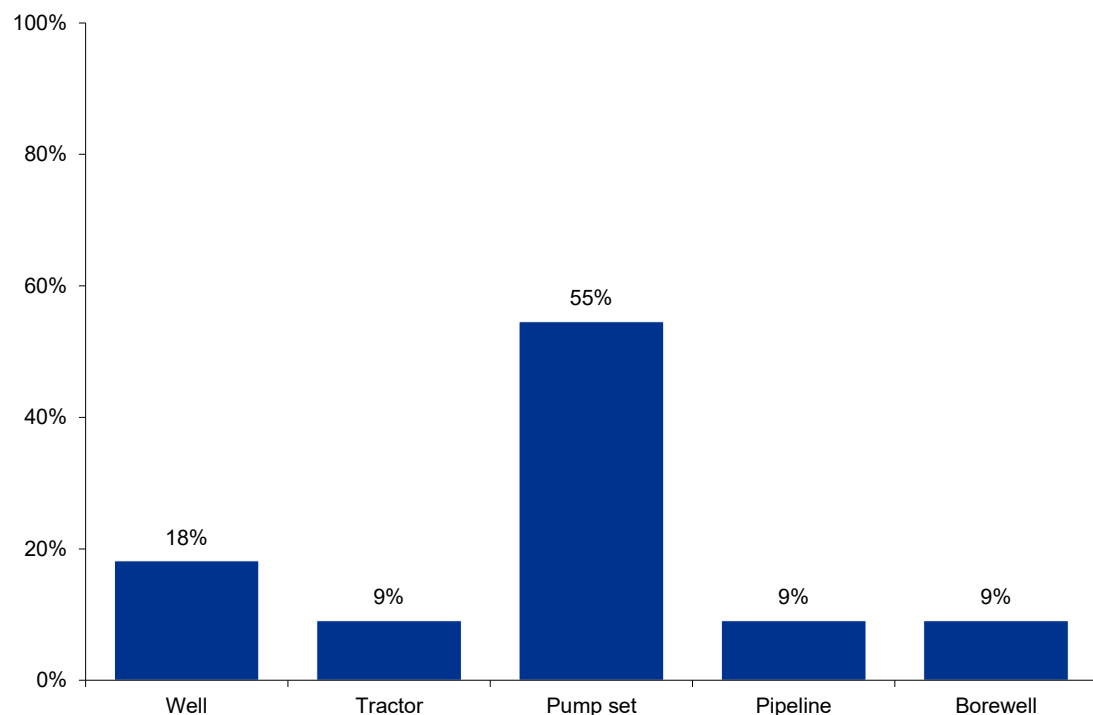
Impact on assets



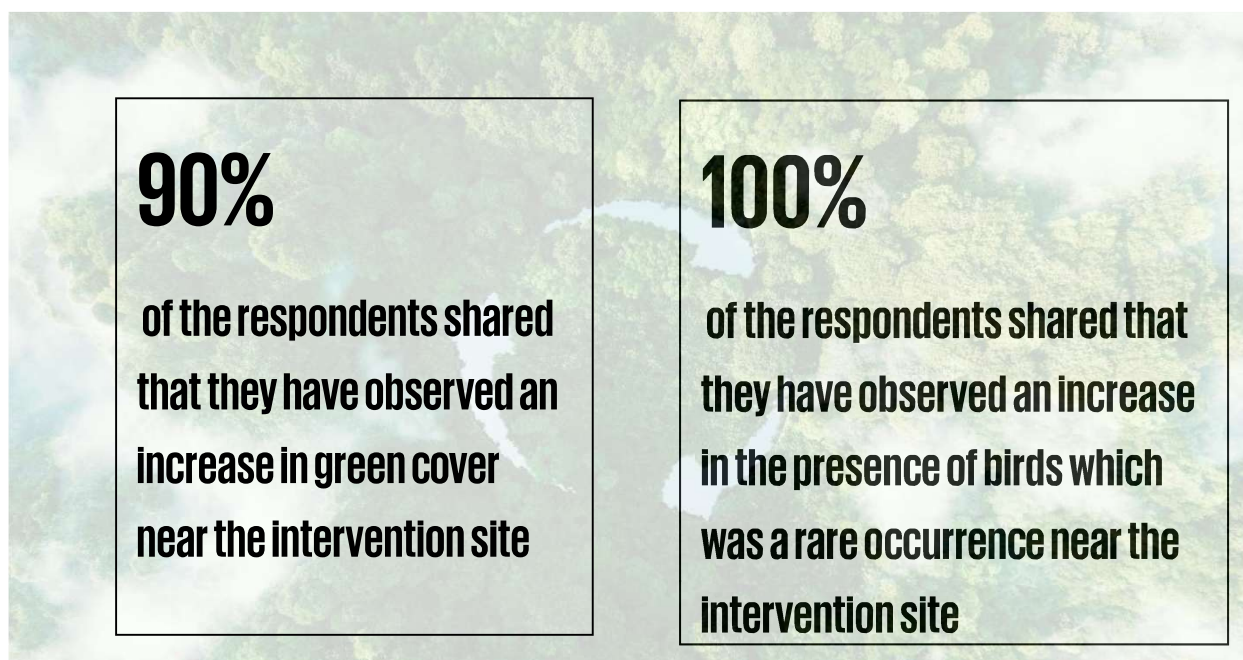
About 24% of respondents reported creating new assets after the intervention, indicating that improved water availability and productivity have translated into reinvestment in farm infrastructure. The majority of these investments are water-access assets, such as pump sets (55%), wells (18%), borewells (9%), and pipelines (9%), showing a strong focus on securing and distributing irrigation water at the farm level. A smaller share invested in tractors (9%), pointing to mechanization gains alongside water infrastructure upgrades.

Overall, the pattern suggests farmers prioritized reliable water extraction and conveyance first (pumps, wells, pipelines), which aligns with the observed improvements in water availability and yields. This asset mix is likely to reduce irrigation downtime, expand irrigated area, and support multi-season cropping, while tractors enhance timeliness of field operations. For sustainability, farmers may benefit from O&M plans (pump servicing, well/pipeline maintenance), energy-efficient or solar pump options, and community norms for equitable water distribution especially where borewell extraction needs careful monitoring.

Assets you have created attributed water increase in the village



3.12 Impact on the environment



During the interaction with PRI members, it was noted that green cover has increased over the last year around the intervention site, mainly due to an increase in the water level of surface water. This has positively resulted in increased frequency of bird visits along the pond site, previously we rarely used to have so many birds at one place.

During interactions with Panchayati Raj Institution (PRI) members, it was observed that the green cover around the intervention site has increased notably over the past year. This improvement is primarily attributed to the rise in surface water levels, which has enhanced soil moisture and supported better vegetation growth in and around the watershed area.

PRI members further noted that the improved water availability has had a positive ecological effect, particularly evident in the increased frequency and diversity of bird visits around the pond

3.13 Case study

Resident of Fatehpur Jadon village in Bulandshahar district, Uttar Pradesh. For many years, our community struggled with severe water scarcity due to the neglected condition of Fatehpur Jadon Pond—3. The pond had become shallow and silted, holding water for only a few months and limiting our agricultural activities as well as groundwater recharge.

With the support of Asian Paints Limited and the dedicated efforts of the National Agro Foundation, the pond underwent a complete transformation. Through desilting, deepening, and strengthening of embankments, its water holding capacity increased significantly. As a result, the pond now retains water for up to seven months, providing much-needed irrigation for 15 families and 30 acres of farmland.

This rejuvenation has revitalized our agriculture, improved groundwater levels, and provided a dependable source of water for our livestock. More importantly, it has restored hope and strengthened the economic resilience of our village. We are deeply grateful to Asian Paints Limited and the National Agro Foundation for enabling this positive and lasting change in our community.

04

Measuring the Social Return

5. MEASURING THE SOCIAL RETURN

As explained in Chapter 2, this report has used two evaluation frameworks which are OECD-DAC and SRoI. Generally, OECD-DAC helps in gaining a qualitative understanding of the impact. On the other hand, SRoI helps organizations in evaluating changes which are being created by measuring social, environmental, and economic outcomes and providing monetary values to represent them. SRoI also helps in understanding the total value generated for every rupee invested for interventions.

There are two types of SRoI:

- Evaluative, which is conducted retrospectively and based on actual outcomes that have already taken place.
- Forecast, which predicts how much social value will be created if the activities meet their intended outcome.

For this study, both evaluative as well as forecasting SRoI has been considered. SRoI primarily involves six stages which are as follows:

Stage 1: Establishing Scope and identifying key stakeholders

Stage 2: Mapping outcomes

Stage 3: Evidencing outcomes and giving them a value

Stage 4: Establishing impact

Stage 5: Calculating the SRoI

Stage 6: Reporting

Stage 1 and Stage 2 have been discussed in-depth in Chapter 2. Further stages have been elaborated in the ensuing sections.

5.1 Evidencing Outcomes

After creating the impact map, outcome indicators were developed based on interactions with beneficiaries and other key stakeholders such as PRI members and implementation teams. Evidence of these outcomes was gathered through both primary and secondary data sources.

Quantity of Change: The quantity of change for the impact map was calculated by extrapolating responses from the sample to the entire beneficiary population. Based on the data collected, a proportionate percentage of total beneficiaries was estimated to represent the overall impact.

The details about the evidence indicators for the outcomes and the quantity of change against each indicator are provided below:

Duration of Outcome:

Some outcomes are long-term, lasting throughout a beneficiary's life, while others persist only as long as the intervention continues. For this SRoI analysis, impacts from infrastructure-related activities are considered for up to 5 years, whereas intangible interventions such as training are assumed to have an impact for 3 years. These timelines are based on the following assumptions:

- Water resource development creates lasting effects on groundwater and surface water levels, with corresponding economic and social benefits
- Training-based interventions require periodic updates due to technological, market, and climate changes

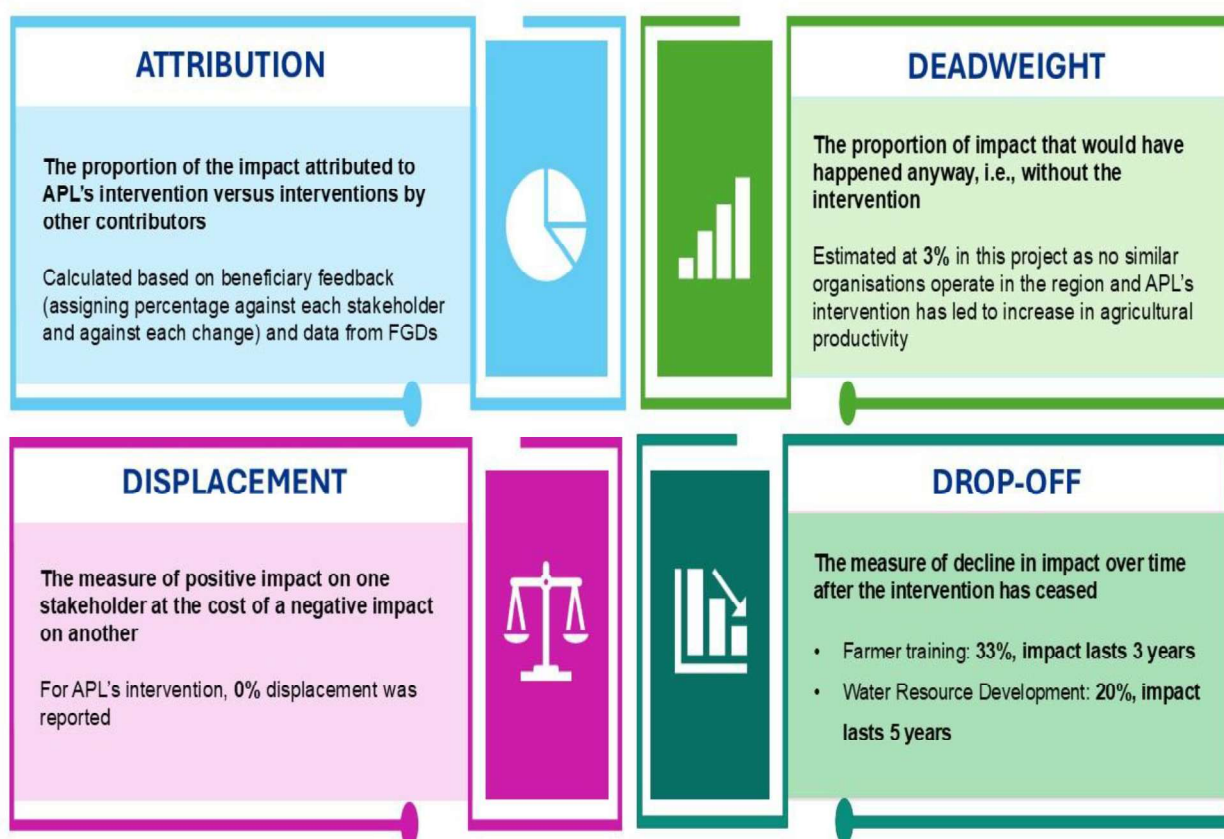
- Based on the nature of interventions and evolving income-generating activities, beneficiary and stakeholder contributions will eventually outweigh the impacts due to initial support from APL

Financial Proxy and Value of Financial Proxy:

To assign value to outcomes, financial proxies were used, following standard practice of using market prices where possible. For intangible outcomes without direct market value, the closest comparable proxy was identified. Refer to the table for outcome-wise details.

5.2 Establishing Impacts

An important part of SROI is 'measuring impact' by accounting for attribution, deadweight, displacement, and drop-off.



5.3 Calculating Impact

$$\text{Impact} = \text{Quantity of outcome} * \text{Financial Proxy Value} * (\text{Attribution} - \text{Deadweight} - \text{Displacement} - \text{Drop-off for each year})$$

SROI is a ratio of cumulative present value for each outcome against the total investment in the project i.e., **SROI = Total NPV of social value / Total Investment**

Total Input Value: For SROI calculation, inputs from APL, beneficiaries, and other stakeholders were considered, assuming all contributions collectively created the observed impact. Without any one of these inputs, the current outcomes would not have been achieved. Inputs included financial contributions from APL, beneficiaries, and stakeholders, as well as the time invested by beneficiaries in training and exposure activities. Financial values were provided by APL, while non-financial inputs were estimated in consultation with the APL CSR team.

The below table represents the total cumulative investments from all the stakeholders towards the project from the time period 2023- 2024:

InputType	Inputdescription	Total Inputvalue(INR)
Financial inputs	CSR Funding from APL	1,50,35,500
Total		1,50,35,500

Net Present Value: The Impact Value is adjusted to reflect the Net Present Value (NPV) of the projected outcome values. This is to reflect the present-day value of benefits projected into the future.

A **discount rate of 5%** has been used for the NPV calculations.

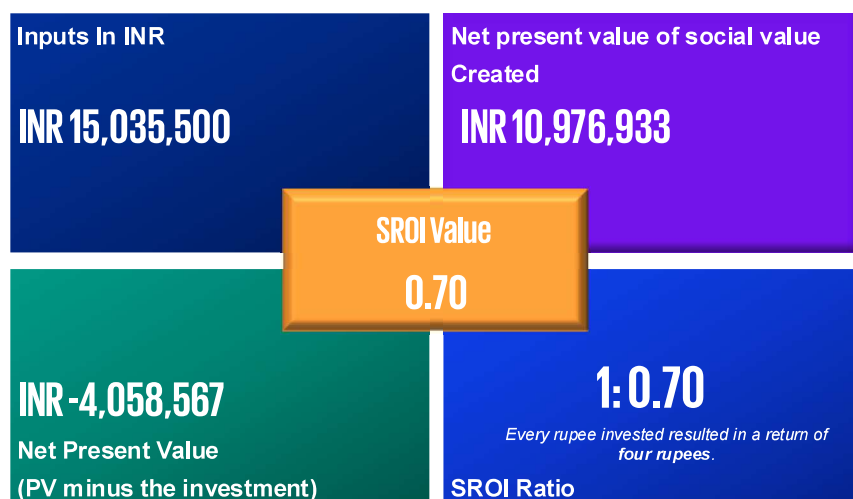
$$\text{SROI} = \{\text{Total present value of impact} / \text{Total present value of input}\}$$

The below table depicts the NPV evaluated as of 2025 and forecasted for 2030 (considering the duration period of 5 years for each outcome):

5.4 SROI Results

The SROI for this analysis- evaluative SROI (as on 2025) and evaluative cum forecast SROI (as on 2030) - is derived from dividing the total present value of the impacts by the total input value of the investment. This is considered because the beneficiaries who have received the support in 2024 would realise the impact for the next 5 years i.e., by 2030.

The below table shows the SROI Value and the SROI Ratio before sensitivity analysis:



For every INR 1 invested, the programme has generated social impact of INR 0.70

Sensitivity Analysis: Our calculations to arrive at the results provided in this report are relied on a variety of primary and secondary data, but the beneficiary data introduced a higher level of uncertainty. This survey was utilized to estimate the attribution, additionality of APL interventions to specific outcomes, and the duration of time the impact would last.

Sensitivity Analysis was used to test variables and assumptions to ensure that conservative estimates have been used in arriving at the SROI. For each impact area, we tested the impact of using one standard deviation above and below the average response to attribution survey questions.

With sensitivity computation, the value of the APL program can then be stated in a range. For every INR 1 invested, the social value generated is between INR 0.67 and INR 0.88.

Sr. No.	Base case Parameters	Base case SROI	Test case Parameters (Min-Max)	Test case SROI
1	Deadweight	0.70	Deadweight is 0%	0.80
			Deadweight is 15%	0.71
			Displacement 0%	0.75
2	Displacement		Displacement is 5%	0.72
			Attribution is 85%	0.85
3	Attribution		Attribution is 75%	0.67
			Drop-off is 3 years	0.75
4	Drop-off		Drop-off is 5 years	0.88

Limitations & assumptions for the SROI study

- SROI for the project may appear low due to contextual factors not fully captured in standard assessments. Many projects have a low direct beneficiary count, resulting in limited monetizable returns, and beneficiary recall may also be low when benefits emerge gradually. In several areas, high baseline agricultural productivity reduces measurable incremental gains. Additionally, many water structures hold significant religious, social, and cultural value for communities benefits that are deeply impactful but not easily quantifiable, thereby contributing to a lower calculated SROI despite strong community relevance.
- The study is limited to the sample of beneficiaries interacted with on-ground during field visits.
- The survey conducted with sample beneficiaries is subjective in nature.
- The study is limited to the recall of the participants in the study.
- The financial proxies are limited to publicly available resources. The financial proxies are representative and based on professional judgement, but it may not be reflective of actual costs incurred due to several considerations. (Refer to Appendix B for details of financial proxies)
- The deadweight, displacement, drop off values are derived from the responses from the stakeholders.
- While information obtained from the public domain or external sources has not been verified for authenticity, accuracy, or completeness, we have obtained information, as far as possible, from sources generally considered to be reliable. However, it must be noted that some of these websites/third party sources may not be updated regularly. We assume no responsibility for the reliability and credibility of such information.



Way Forward

6. Way forward

The consultation process across Sultanpur, Fatehpur Jadav, and Dudhera villages highlights a set of interconnected issues related to water harvesting structures (WHS), their management, and their broader socio-economic and environmental impact. Discussions with farmers, Panchayat representatives, and community members reveal that although the ponds have significantly improved water availability, raised groundwater levels, enhanced farm productivity, and improved mobility and safety, several structural, governance-related, and operational challenges remain unaddressed.

Key issue (with evidence)	Draft recommendation
No formal O&M governance: Maintenance is ad-hoc; no Water Users Association (WUA)	Constitute a WUA with a simple charter (roles, fee collection, seasonal O&M plan), integrate the lease agreement with explicit maintenance clauses (repair SLAs, penalties/incentives), and publish a maintenance calendar pre- and post-monsoon.
Structural issues & incomplete hydraulic connectivity:	Repair inlets/outlets; design and construct shallow, lined naalis to interconnect WHS and drain monsoon water along the natural trench; include silt traps and gated controls.
Safety & controlled access: Deep pond sections pose	Install perimeter fencing with one/two stabilized ramps (gabion or RCC steps) at designated shallow points; add warning signage.
Cleanliness & nuisance: Plastic waste, heavy grass growth; earlier mosquito nuisance and unsafe surroundings improved but needs routine upkeep;	Monthly cleaning drive (community + MNREGA/contracted labor); pre-monsoon de-silting of inlets; install a project information board (capacity, dates, contact for O&M).
Monitoring gap: Benefits noted (e.g., water level rise ~20 ft; faster irrigation; yield gains), but no systematic monitoring or shared records.	Set up community water ledger: weekly staff-gauge levels, monthly nearby tubewell depth, and intake/outflow logs; simple pre/post crop yield register for 10–15 adjoining farms per WHS.

7. Annexures

Outputs	What changes?	How much?	Monetary valuation	
Rejuvenation of ponds	Creation of sustainable water supply through increment in availability and accessibility of water	Increase in water harvesting capacity (Quantum of Water Potential created or Water Harvested in kilolitres)	Groundwater abstraction charges for Drinking and Domestic use (Central Water Commission) per cubic metre	2
		Increased availability of water in wells / borewells due to ground water recharge (number of farmers/community members x Avg increase in availability of water in months/days)	Average HH requires 220 LPCD daily and using it for a months gets us the water requirement = 6600/HH/month Charges for purchasing water (One water tanker of 4000 litre capacity) - INR 200/	330
Improved agriculture practices	Increased agriculture productivity due to enhanced agriculture practice and increased water availability	Increase in agriculture produce (Number of farmers x Avg increase in yield in the year)	Average increase in Yield indicated by respondents (Quintals) MSP of Sugar Cane in UP- per Q Average per Quintal cost -400 Rs (https://www.commodityonline.com/mandiprices/rice)	400
		Reduction in Cost of Cultivation (Number of farmers x Avg reduction in cost annually)	Average reduction in Cost of Cultivation indicated by respondents (INR) - 15,000/ beneficiary	15000
		Reduction in Cost of Irrigation due to improved irrigation (Number of farmers using Mobile Engines for irrigation x Avg hours of irrigation)	Average cost of borewell drilling is 100 Rs/ feet. Assuming 5 feet drilling (https://www.agrifarming.in/borewell-drilling-cost-pump-price-and-pipe-cost)	500
Improved recreational usage	improved usage for recreational, cultural aspects	Increased number of community members using ponds for recreational and cultural activities	Entry fee for public park	10

IMPACT ASSESSMENT OF WATER RESOURCE DEVELOPMENT- CANAL LINING PROJECT, ROHTAK

March 2026

Asian Paints Limited





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Strictly Private and Confidential

Mr. Amit Kumar Singh
Vice-President, Corporate affairs & CSR
Asian Paints Limited
Mumbai, Maharashtra– 400055
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24 March 2026

Subject: Final report for Impact assessment of CSR Projects

Dear Mr. Amit Kumar,

We appreciate the opportunity to assist Asian Paints Limited in providing **Impact assessment of CSR Projects** related services.

Please find enclosed our final report, which has been prepared in accordance with the scope and terms stated in our engagement letter dated 3rd February 2026. With this deliverable, we have completed our obligations as stated in our engagement letter.

It has been our privilege to have this opportunity to work with you, and we look forward to continuing our relationship.

Yours sincerely

Signed by:

Jignesh Thakkar,

Partner,

KPMG Assurance and Consulting Services LLP

Disclaimer

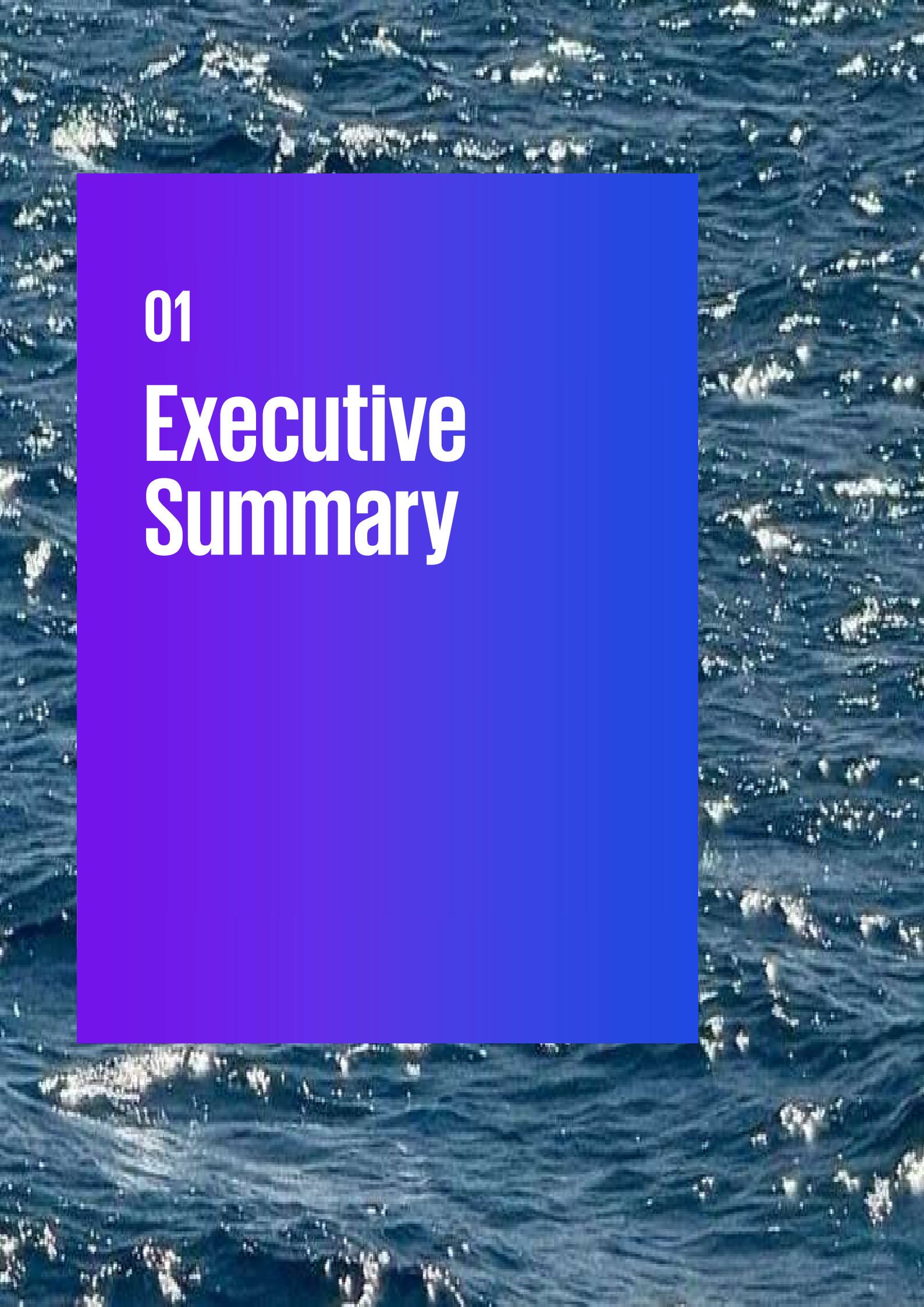
- Our report is prepared solely for Asian Paints Limited; KPMG does not accept or assume any liability or responsibility or duty of care for any use of or reliance on this report by anyone other than our Client to the extent agreed in the Agreement;
- Impact assessment is limited to the projects allocated by Asian Paints Limited
- OECD DAC and SROI framework has been used in preparing the report as detailed herein. No professional assurance standards e.g. ISAE 3000 etc. have been applied while preparing this report and accordingly the rigors applicable under such standards are not applicable for the scope covered by our report;
- Procedures, analysis and recommendations, if any, are advisory in nature based on the information collected from various sources both publicly and those provided by the client;
- Our observations represent our understanding and interpretation of the facts based on reporting of beneficiaries and stakeholders;
- Our report by its very nature may involve numerous assumptions, inherent risks and uncertainties both general and specific. The conclusions drawn shall be based on the information available with us at the time of preparing the report;
- We shall not perform an audit and shall not express an opinion or any other form of assurance. Further, comments in our report are not and shall not be intended nor should they be interpreted to be legal advice or opinion. Client shall be fully and solely responsible for applying independent judgment with respect to the findings included in the report to make appropriate decisions in relation to future course of action if any. We shall not take responsibility for the consequences resulting from decisions based on information included in the report;
- While information obtained from the public domain or external sources has not been verified for authenticity, accuracy or completeness, we have obtained information as far as possible from sources generally considered to be reliable. However, it must be noted that some of these websites, third party sources may not be updated regularly. We assume no responsibility for the reliability and credibility of such information;
- Our work shall be limited to the specific procedures described in this Engagement Letter and shall be based only on the information and analysis of the data obtained through interviews of beneficiaries supported under the programme, selected as sample respondents and discussions with APL team and stakeholders of the programme. Accordingly, changes in circumstances or information available after the review could affect the findings outlined in our report;
- In no circumstances shall we be liable for any loss or damage of whatsoever nature arising from information material to our work being withheld or concealed from us or misrepresented to us by any person to whom we make information requests;
- In accordance with its policy, KPMG advises that neither it nor any of its partner, director or employee undertakes any responsibility arising in any way whatsoever to any person other than Client in respect of the matters dealt with in this report including any errors or omissions therein arising through negligence or otherwise howsoever caused;
- In connection with our report or any part thereof, KPMG does not owe duty of care (whether in contract or in tort or under statute or otherwise) to any person or party to whom the report is circulated to and KPMG shall not be liable to any party who uses or relies on this report. KPMG thus disclaims all responsibility or liability for any costs, damages, losses, liabilities, expenses incurred by such third party arising out of or in connection with the report or any part thereof;
- By reading our report, the reader of the report shall be deemed to have accepted the terms mentioned hereinabove;

List of Abbreviations

APL	Asian Paints Limited	mS/cm	Milli Siemens per centimeters
ATMA	Agricultural Technology Management Agency	MSP	Minimum Support Price
BCM	Billion Cubic Meters	NITI	National Institution for Transforming India
BIS	Bureau of Indian Standards	NMAET	National Mission on Agricultural Extension and Technology
BOD	Biochemical Oxygen Demand	NPV	Net Present Value
CGWB	Central Ground Water Board	O&M	Operation and Maintenance
CGWB	Central Ground Water Board	OC	Organic Carbon
CPCB	Central Pollution Control Board	OECD-DAC	Organisation for Economic Co-operation and Development-Development Assistance Committee
CSR	Corporate Social Responsibility	OOPE	Out-of-Pocket Expenditure
CWC	Central Water Commission	pH	Potential of Hydrogen
dS/m	Deci Siemens per Meter	ppm	Parts Per Million
EC	Electrical Conductivity	PRI	Panchayati Raj Institution
FGD	Focus Group Discussion	qtl	quintal
FIG/FI	Farmer Interest Group	RFP	Request for Proposal
FPO	Farmer Producer Organization	ROI	Return on Investment
ft	Feet	SAR	Sodium Adsorption Ratio
HH	Household	SDG	Sustainable Development Goal
INR	Indian Rupees	SEZ	Special Economic Zone
IS	Indian Standards	SHG	Self-Help Group
kg/ha	Kilogram per Hectare	SRI	System of Rice Intensification
kg/ha	Kilograms per hectare	SRoI	Social Return on Investment
KII	Key Informant Interview	TDS	Total Dissolved Solids
KPI	Key Performance Indicator	TOC	Theory of Change
LPCD	Litres Per Capita Per Day	tons/acre	Tons per acre
me/L	Milliequivalents per litre	VI	Village Institution
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act	WASH	Water, Sanitation and Hygiene
MIDC	Maharashtra Industrial Development Corporation	WHS	Water Harvesting Structure
MPCE	Monthly Per Capita Expenditure	WUA	Water User Association

Contents

1.	Executive Summary	5
2.	Introduction	9
2.1.	Background	9
2.2.	About Asian Paint Limited.....	10
2.3.	About The Study.....	10
2.4.	About The Project.....	11
2.5.	About Implementing Partner	12
2.6.	Project Geography	12
3.	Approach And Methodology	14
3.1.	Our Approach.....	14
3.2.	Oecd-Dac	14
3.3.	Social Return On Investment (Sroi)	17
	Detailed Methodology	18
4.	Analysis And Finding.....	25
4.1.	Demographic Profile	25
4.2.	Crop Profile	27
4.3.	Irrigation Facility.....	27
	Accessibility Of The Project Across All Community Groups:.....	28
4.4.	Impact On Availability And Accessibility Of Water	28
4.5.	Impact On Agricultural Productivity	29
4.6.	Impact On Income From Agriculture	30
4.7.	Impact On Assets	30
4.8.	Case Study.....	31
5.	Measuring The Social Return.....	33
5.1.	Evidencing Outcomes.....	33
5.2.	Establishing Impacts.....	34
5.3.	Calculating Impact.....	35
5.4.	SROI Results	36
6.	Way Forward.....	39



01

Executive Summary

1. Executive summary

Asian Paints Limited has imbibed the philosophy of transformation in its DNA and has consistently reinvented the industry. Aligning with this approach, the company's CSR efforts are focused on achieving holistic and sustainable community development. There is a strong emphasis on fostering robust trust-based relationships with communities located in the vicinity of its plants and people in the unorganized sector. These inclusive development initiatives are concentrated on health and hygiene, water conservation, skill development, and disaster management.

India's increasing water stress driven by rapid development, population pressure, and climate variability has intensified the need for efficient and sustainable irrigation solutions, particularly in agrarian regions like Rohtak. In this context, Asian Paints Ltd., under its Water Stewardship Program, implemented the Water Resource Development–Canal Lining Project in partnership with the National Agro Foundation to enhance water availability, reduce seepage losses, and strengthen agricultural resilience. The project aimed to improve irrigation efficiency, expand the irrigated command area, and secure livelihoods for small and marginal farmers who are highly dependent on timely and reliable water access. Using the OECD-DAC IRECS framework and Social Return on Investment (SROI) methodology, the assessment evaluates the project's relevance, effectiveness, coherence, sustainability, and long-term impact on communities, while outlining strategic directions for strengthening institutional mechanisms and ensuring continued benefits.

KPMG conducted this impact assessment covering interventions implemented in FY 2023-24, using OECD-DAC and Social Return on Investment (SROI) frameworks and this was conducted using a mixed-method approach. For this study, KPMG interacted in two villages in the Rohtak district, including direct beneficiaries and indirect beneficiaries, which include farmers, community members, PRI members and staff of the implementing agency.

Project objective

- The main purpose behind the lining of the canal is to reduce the seepage losses
- Prevention of Water Logging
- Increase in Commanded Area
- Canal lining can also increase the channel capacity

Refer to the next page for the key highlights

Key Output Numbers

265225

Water potential
created in KL

608

Beneficiary covered

Key highlights from the impact assessment study



Improved water availability for irrigation purpose post-monsoon

Since Rohtak relies on canal irrigation, water availability patterns differed from groundwater-based villages. Farmers noted that water access continued through the canal system rather than depending on post-monsoon storage. Thus, availability was determined by canal release cycles, not seasonal recharge.



Improved water accessibility for irrigation

Water accessibility improved meaningfully after the canal lining intervention. Before the project, 0% of farmers rated irrigation access as "Good," 34% as "Fair," and 60% as "Bad." After the intervention: 56% rated access as "Good," 44% rated it as "Fair," 0% rated it as "Bad." This shift indicates that canal lining helped water flow more consistently and reduced losses along the channel.



S



Improved Multi-season cropping

With better and more predictable canal water, 96% of farmers in Rohtak reported that they could engage in multi-season cropping. This allowed them to make better use of their land and plan cropping cycles with fewer disruptions.



Improved crop yield (Primary crop: Paddy)

Crop yields also improved. Farmers growing wheat, the primary crop in Rohtak, experienced a yield increase of around 22%, which they linked to more reliable irrigation from the canal system.



Increase in Agriculture income

Around 28% of respondents in Rohtak reported an increase in agriculture-based income. This improvement was mainly driven by better water accessibility and improved crop yields following the canal lining work.



Impact on the environment and biodiversity

All the respondents shared that they feel the project intervention resulted positive impact on the environment and biodiversity.



Findings basis IRECS framework

I- Impact

- The intervention in Rohtak led to clearer improvements in irrigation reliability, with water access maintained through the canal system rather than depending on post-monsoon recharge. This resulted in noticeably better water accessibility, as farmers reported a strong shift from poor to good access after canal lining. These changes enabled 96% of farmers to engage in multi-season cropping and supported a crop-yield increase of about 22%, especially for wheat, the main crop in the area. Around 28% of households also reported higher agricultural income, and respondents shared that the intervention contributed positively to the surrounding environment and biodiversity.

R- Relevance

- Majority of respondents dependent on agriculture
- Interventions such as check dams, desilting, contour trenches, and soil moisture conservation directly respond to the community's need for reliable water access and improved irrigation.

E- Efficiency

- Project completed within set timelines

C-Coherence

- Project Alignment with National Priorities-
- Directly converges with Jal Shakti Abhiyan and 'Catch
- the Rain' campaign of Ministry of Jal Shakti.
- Project align with the SDGs as mentioned, SDGs 6, SDG 1, SDG 2, SDG 15

S-Sustainability

- 100% of respondents shared that this project has brought a positive change in their life
- Majority of respondents were confident about sustaining the change in long term through community collectivism PRI members also showed their interest to sustain the impact

Social Return on Investment

1

Total CSR Investment

INR 2,63,62,052

2

SROI Ratio

1.54

3

Sensitivity range

₹1.22 – ₹1.62 per ₹1 invested.

Asian Paints Limited's Water Resource Development–Canal Lining Project in Rohtak was evaluated using the Social Return on Investment (SROI) framework to quantify the social, economic, and environmental value generated through the intervention. The assessment combined evaluative and forecast SROI approaches, considering both the actual outcomes achieved during FY 2023–24 and the

projected benefits expected to accrue over the next five years, the typical lifespan of infrastructure-based water interventions.

The analysis demonstrates strong value creation, with the programme generating an SROI ratio of ₹1.54 for every ₹1 invested. This means that each rupee contributed by Asian Paints Ltd. resulted in 1.54 rupees of measurable social impact for the beneficiary communities. When tested through sensitivity analysis, the SROI ratio ranged between ₹1.22 and ₹1.62, confirming the robustness of the results even under conservative assumptions.

Sensitivity analysis further reinforced the stability of the SROI ratio, with variations in attribution, deadweight, and duration assumptions showing minimal deviation from the base case. This confirms that the intervention delivers consistent and resilient social value.

Overall, the SROI findings clearly demonstrate that the Canal Lining Project has delivered high social returns, strengthened agricultural resilience, improved water security, and enhanced economic stability for farmers in Rohtak. With continued focus on governance, quality assurance, and community-led maintenance, the project's long-term social value is expected to remain strong and sustainable.

Way Forward

To ensure long-term sustainability of the canal lining intervention, the project should now prioritise strengthening community institutions especially Water User Associations (WUAs) by formalising their roles, establishing clear responsibilities for water distribution and maintenance, and providing regular training on governance and O&M practices. Enhancing women's participation through structured leadership roles and capacity-building will further improve inclusiveness and decision-making.

Equally important is improving implementation quality through third-party quality checks, joint inspections with community members, and a simple grievance redressal system to address construction or maintenance issues promptly. Establishing preventive maintenance plans and community-managed funds will help protect infrastructure and ensure continuous benefits over the years.

Finally, the project can amplify its impact by promoting water-efficient irrigation practices, crop diversification, and climate-resilient agriculture. Strengthening market linkages, soil management training, and coordination with government departments will help farmers fully leverage improved water security, leading to stronger livelihoods and more resilient agricultural systems.

2. Introduction

This chapter consists of an overview of the water stress in Indian context and Asian Paints Ltd.'s CSR efforts to address the issue. It provides an overview of the project, implementing partners, project geographies, scope, and purpose of the study.

2.1. Background

Water security has reached a critical inflection point in India because of rapid development, population pressure and climate volatility. As of 2025, India sustains approximately 18% of the global population with only 4% of the world's freshwater resources.¹ The NITI Aayog Annual Report (2024-25) warned that the country's average per capita water availability is projected to decline to 1,341 cubic meters by late 2025, pushing the nation further into the "water-stressed" category (threshold < 1,700 m³) and nearing the "water-scarcity" limit of 1,000 m³.² With abundant flow in Ganga and Brahmaputra basins and much lower availability in west and south-western basins, regional disparities exist that make proper management of local demand essential.

India's water budget remains heavily dependent on a fluctuating monsoon and there are both quantity and quality concerns with groundwater. According to the Dynamic Ground Water Resource Assessment (2024) published by Central Ground Water Board (CGWB), the total annual groundwater recharge is estimated at 446.90 Billion Cubic Meters (BCM), with an annual extractable resource of 406.19 BCM. While the average extraction rate is 60.47%, regional disparities are severe. Out of a total of 6,746 assessment units, approximately 11.1% of assessment units, primarily in Punjab, Haryana, Rajasthan, and Delhi, are classified as "over-exploited", where extraction exceeds natural replenishment.³ On groundwater quality, CGWB's Annual Ground Water Quality Report 2024 highlights localized exceedances of nitrate, fluoride, and arsenic in shallow aquifers across different states, varying seasonally with recharge and agricultural inputs.⁴ The report mentions Triple Contamination Challenge in India's groundwater, referring to the three most widespread contamination threats, each stemming from different sources- nitrate (anthropogenic), fluoride (geogenic) and salinity/electrical conductivity (EC).

Surface water pollution is another important concern. Around 70% of India's surface water is contaminated, ranking the country 120th out of 122 on the global Water Quality Index. Central Pollution Control Board's latest report titled "Polluted River Stretches for Restoration of Water Quality" identifies 150 polluted stretches nationally, including 35 Priority-1 segments where Biochemical Oxygen Demand (BOD) is greater than 30 mg/L. Wastewater from various sources, intensive agriculture, industrial activities, and untreated urban runoff contribute to this pollution, compromising the health of both humans and aquatic ecosystems.

Climate change has added to the risk of water stress. In 2024-25, India experienced a 55% increase in record heatwaves, accelerating evapotranspiration and increasing the demand for irrigation which consumes over 80% of freshwater in rural areas.⁵ Because of climate change, the monsoon pattern has become erratic, characterised by long dry spells followed by intense cloudbursts. When this happens, the natural soil infiltration is affected which results in flash floods and reduced aquifer recharge.

In this challenging water landscape, the importance of water resource management becomes apparent.

¹ United Nations World Water Development Report 2024, sourced at <https://unesdoc.unesco.org/ark:/48223/pf0000388948>

² NITI Aayog Annual Report 2024-25 [NITI AAYOG, India | Annual Report 2024-25](#)

³ [Press Release: Press Information Bureau](#)

⁴ CGWB Annual Ground Water Quality Report 2025 [CGWB - Publications Repository](#)

⁵ [India's Water Crisis: Why Climate-Resilient Governance is Urgent](#)

2.2. About Asian Paint Limited

Asian Paints, headquartered in Mumbai, is one of the largest paint companies in India. Started in 1942, the company currently operates in 14 countries with products sold in over 60 markets. Asian Paints operates in various segments, including decorative paints, industrial and automotive coatings, and home décor products like furniture, lighting, and wallpapers. APL focuses heavily on research and development, which helps it keep introducing new and improved products. The company has also launched eco-friendly and sustainable paints, in line with the growing global preference for environmentally responsible solutions.

Asian Paints goes beyond its core business by actively contributing to social and environmental well-being through its Corporate Social Responsibility (CSR) initiatives. Guided by its values of trust, fairness, and care, the company focuses on creating long-term impact in communities around its operations. Its programmes address key areas such as water conservation, healthcare and skill development, leveraging its expertise to deliver meaningful change. The objective is to empower marginalised communities and improve quality of life by tackling critical social, economic, and environmental challenges. These efforts are closely aligned with the United Nations Sustainable Development Goals (SDGs), particularly, Goal 1 (No Poverty), Goal 2 (Zero Hunger), Goal 3 (Good Health and Well-being), Goal 6 (Clean Water and Sanitation), Goal 8 (Decent work and economic growth), Goal 11 (Sustainable cities and communities) and Goal 17 (Partnership for the goals).

Asian Paints runs several initiatives in water conservation, health and hygiene, skill development, and disaster relief. Its flagship Water Stewardship Program called the Watermark program, focuses on improving water availability and security in communities around its plants. The program combines supply-side measures like pond cleaning, desilting, check-dam construction and renovation, canal lining, and integrated watershed management with demand-side interventions such as micro-irrigation, System of Rice Intensification (SRI), and sustainable farming practices. These efforts aim to restore water bodies, reduce soil erosion, and recharge groundwater, while promoting efficient water use in agriculture. By adopting a holistic approach that includes soil health and pest management, Asian Paints helps strengthen ecosystem services and improve livelihoods.

2.3. About the Study

To understand the impact created by its interventions implemented in FY 2023-24, Asian Paints Ltd. empaneled KPMG to facilitate the impact assessment of its **Participatory Water Resource Management project**. The objective of this study was to assess the impact of these water stewardship activities on the beneficiaries and stakeholders covered under the projects. The study aimed to understand the immediate, medium, and longer-term impact of the interventions on the targeted beneficiaries:

The duration considered for this study is financial year 2023-24.

Impact on Access & Availability of Surface & Ground Water

- To understand the impact on ground-water recharge based on well recharge data
- To understand the duration of water availability post-monsoon (in months)
- To understand the impact of water accessibility, availability & livelihood of the farmers

Impact on Potable Water	• To assess the impact on drinking water availability and quality due to rainwater water harvesting structures. • To assess impact on other areas like drudgery reduction, drop in health issues around the drinking water etc.
Impact on Agricultural Land & Practices	• To assess impact on season wise cropping pattern led by the availability of water in the area. • To assess impact on soil health due to balance use of fertilizer because of adoption of recommendations of soil testing report and application of organic fertilizers • To assess impact on knowledge level of the farmers about improved agricultural practices.
Impact on Farmer's Livelihood	• To assess impact of water availability on crop production (yield/acre) • To assess impact of water availability on productivity of livestock animals • To assess impact on net return/acre per farmer. • To assess the impact on livelihood opportunities created through the programme.
Other Impact Areas Apart from Water Rejuvenation & Canal Lining	• To assess knowledge and adoption level of water efficient agricultural and risk mitigation farm practices. • To assess level of ownership by the community in the asset created: Whether community-based institutions had been formed and taking care of maintenance aspects of the assets created under the project.

2.4. About the project

Asian Paints' Water Stewardship Programs signifies the company's dedication to sustainable practices and responsible corporate citizenship. By addressing the challenge of water scarcity through community partnerships and integrated initiatives, Asian Paints aims to make a positive impact on both its operations and the communities it serves.

The Water Resource Development-Canal Lining Project at Rohtak, Haryana, undertaken by Asian Paints Limited in partnership with National Agro Foundation, aims to improve irrigation efficiency and agricultural sustainability by reducing seepage losses and preventing waterlogging. The initiative focuses on lining canals in Nonand and Chuliana villages to increase channel capacity and expand the commanded area. Key interventions include earthwork excavation, brick lining, cement concrete basement lining, plastering, installation of inlet caps, tractor crossing slabs, and provision of hand pumps for drinking water. The project is expected to enhance water availability for farmland, reduce maintenance costs, minimize groundwater extraction, lower fuel consumption for pumping, and improve crop yields through better-quality river water.

Objectives of the project are:

- To reduce the seepage losses by lining the canal
- To prevent waterlogging
- To increase the channel capacity

2.5. About implementing partner

The National Agro Foundation (NAF), founded in 2000 by Bharat Ratna awardee and a prominent figure in Green Revolution, Mr. C. Subramaniam, is a Public Charitable Trust committed to driving a rural transformation centered on agriculture and the upliftment of small and marginal farmers. Guided by the principle of inclusive growth, NAF adopts a holistic “Soil to Market” approach, evolving from Mr. Subramaniam’s visionary “Seed to Grain” philosophy. From its humble beginnings, NAF has grown into a dynamic, professional organization delivering innovative solutions that have significantly impacted rural communities. Through collaborations with government bodies, corporates, and other stakeholders, NAF has implemented programs addressing critical agricultural and rural development challenges, integrating advanced technologies, tailored training, and capacity-building initiatives. With strong research and development efforts, NAF has reached over 875,000 farmers across 6000+ villages in 10 states, reinforcing its commitment to sustainable development. Its partnerships span government and non-government organizations, academic institutions, financial bodies, and corporates. In association with Asian Paints Limited (APL), NAF is actively executing CSR projects focused on water resource development in Telangana, Uttar Pradesh, Karnataka, and Tamil Nadu. This strategic alliance aims to rejuvenate water bodies, enhance farmer livelihoods, and promote efficient natural resource management. Under this collaboration, NAF ensures timely execution of activities within budget, while APL provides essential technical and financial support, fostering a sustainable and inclusive development model that delivers tangible benefits to marginalized communities.

2.6. Project Geography

Rohtak is located in the south-eastern part of Haryana, forming a part of the fertile Indo-Gangetic plains. The region is largely flat, with gentle slopes and alluvial soil that supports extensive agriculture. Its elevation averages around 220–230 metres above sea level, making it suitable for crops such as wheat, rice, and sugarcane.

The climate of Rohtak is typically semi-arid and continental, featuring hot summers, cool winters, and a monsoon season that brings most of the annual rainfall. The area does not have major perennial rivers, but several minor seasonal streams and canals especially those linked to the Western Yamuna Canal system provide essential irrigation.

Geographically, Rohtak is well-connected, lying close to the national capital, Delhi, which influences its urban growth and economic activity. Surrounding the city are patches of scrub vegetation, agricultural fields, and small water bodies, contributing to the region’s agro-ecological identity.

02

Approach & Methodology

3. APPROACH AND METHODOLOGY

The chapter provides details on the research design and methodology adopted for the impact assessment. It includes description of the key activities, data collection methods, and sampling strategies, employed to ensure the reliability and validity of the findings.

3.1. Our Approach

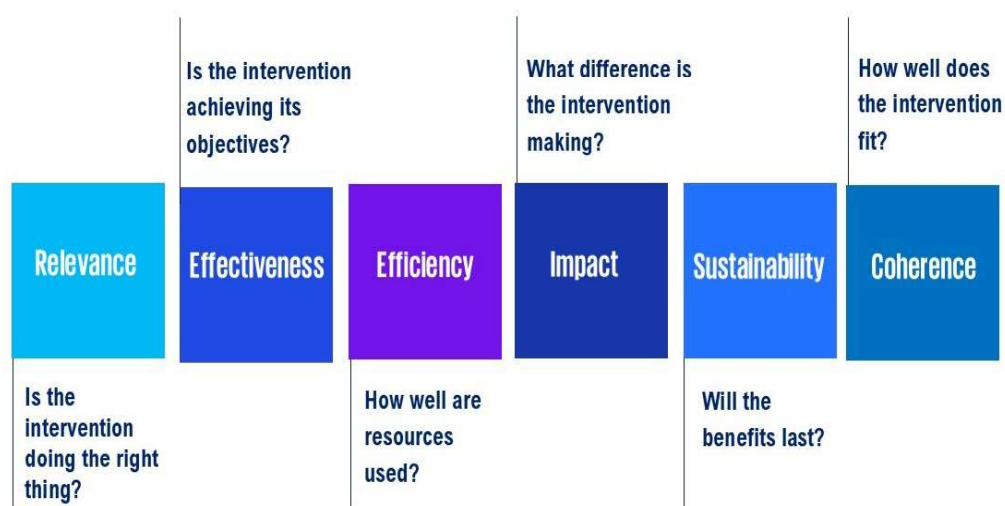
The study applied the OECD DAC and SROI frameworks to design the evaluation and measure the social returns and impacts generated by APL's CSR projects on water stewardship. The OECD DAC framework is a globally recognized approach for assessing the effectiveness of social development programs, while the SROI methodology goes beyond traditional economic metrics to capture broader social and environmental value.

A structured four-phase methodology was adopted to ensure a comprehensive evaluation. This approach integrated the principles of both OECD DAC and SROI throughout the process, enabling a robust assessment of outcomes and the overall impact of the program.

Phase I: Consulting and Scoping	Phase II: Research Design	Phase III: Data Collection	Phase IV: Analysis and Reporting
Kick-off meeting	Development of Impact Map	Development of field visit plan	Analysis of collected data using OECD DAC framework and estimating the SROI of the projects
Desk review of documents and reports related to the program	Mapping the stakeholders	Field visits and stakeholder interactions	Development of draft and final report
Determining the scope of the study	Designing sampling strategy and data collection tools		Presentation to APL Team

3.2. OECD-DAC

The Organization for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) introduced its evaluation criteria in 1991 as a structured framework for assessing development programs, whether ongoing or completed. This approach enables a systematic review of multiple dimensions of a program, offering both qualitative insights and quantitative measures of impact. The framework is widely recognized for its ability to evaluate effectiveness and relevance in social development initiatives. It is built around the following six key criteria, which form the basis for comprehensive program assessment under the OECD-DAC guidelines:



These evaluation criteria have been defined below along with illustrative questions:

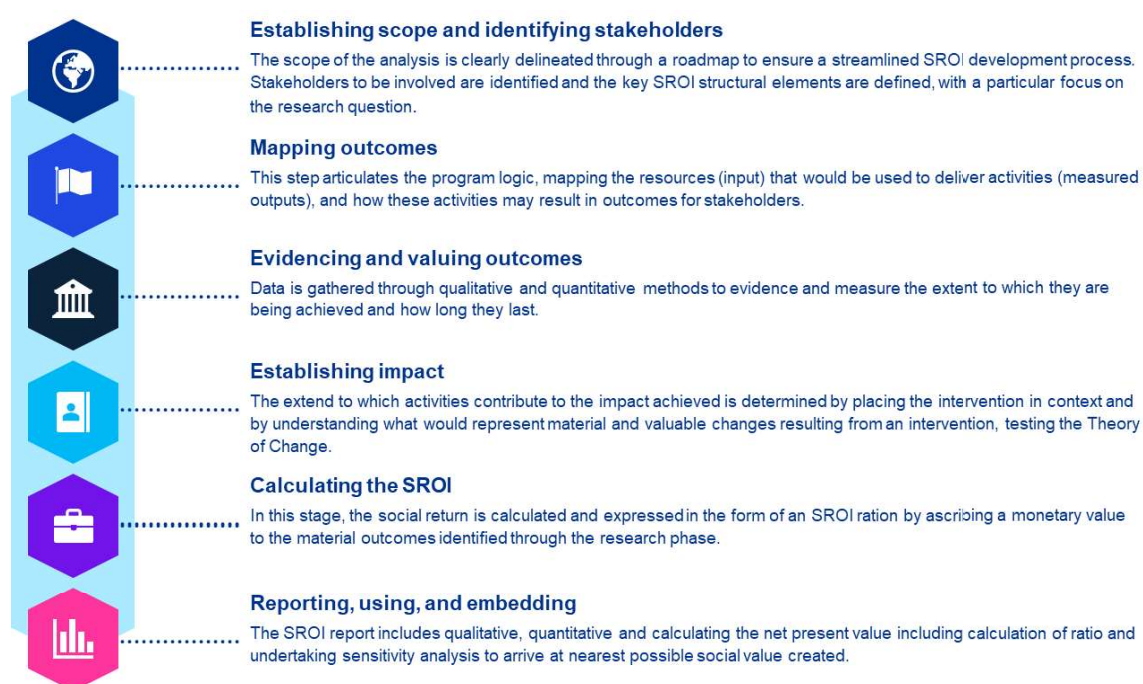
Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
Relevance	A measure of the extent to which the intervention objectives and design respond to beneficiaries, global, country, and partner/institution needs, policies, and priorities, and continue to do so if circumstances change. ▪ To what extent are the objectives of the project still valid? ▪ Are the activities and outputs of the project consistent with the overall goal? ▪ Are the activities and outputs of the project consistent with the intended impacts and effects?	<i>Commitments of the stakeholders are integrated into Project design and planning</i>
Effectiveness	A measure of the extent to which the intervention achieved, or is expected to achieve, its objectives, and its results, including any differential results across groups. ▪ To what extent were the objectives achieved / are likely to be achieved? ▪ What were the major factors influencing the achievement or non-achievement of the objectives?	<i>Achieved cross-cutting objectives during project implementation</i>

Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
Efficiency	A measure of the extent to which the intervention delivers, or is likely to deliver, results in an economic and timely way. ▪ Were activities cost-efficient? ▪ Were objectives achieved on time? ▪ Was the project implemented in the most efficient way compared to alternatives?	<i>Resources are provided and efficiently used for participation of all stakeholders</i>
Impact	A measure of the extent to which the intervention has generated or is expected to generate significant positive or negative, intended, or unintended, higher-level effects. ▪ What has happened as a result of the project? ▪ What real difference has the activity made to the beneficiaries? How many people have been affected?	<i>Achieved real and long-lasting positive changes in the lives of intended beneficiaries</i>
Sustainability	A measure of the extent to which the net benefits of the intervention continue or are likely to continue. ▪ To what extent did the benefits of a project continue after donor funding ceased? ▪ What were the major factors which influenced the achievement or non-achievement of sustainability of the project? ▪ What can be some of the innovative ways to make the project sustainable in the long run?	<i>Likelihood that project achievements will continue after project</i>
Coherence	A measure of the extent to which the intervention is compatible with other interventions in a country, sector, or institution. ▪ Does the project address the synergies and interlinkages between the intervention and other interventions in the same organisation and in the same sector/policy landscape? Does it weaken or enhance the impact of any current programs or policies? ▪ Does the program lead to duplication of efforts?	<i>The extent to which other interventions (particularly policies) support or undermine the intervention and vice versa.</i>

3.3. Social Return on Investment (SROI)

Social Return on Investment (SROI) is a structured approach designed to capture and measure the broader value created by an investment. It covers the social, environmental, and economic benefits that traditional cost-benefit analyses often overlook. This methodology assigns monetary values to social and environmental outcomes, enabling organisations to calculate how much value is generated for every rupee spent on a program. Unlike conventional assessments, SROI focuses on changes that matter most to stakeholders, providing a clear picture of the social impact of projects and policies.

By using SROI, organisations can demonstrate the social value their initiatives deliver, gain deeper insights into stakeholder impact, and integrate these findings into strategic decision-making. It is fundamentally about value rather than just financial returns and can be applied to an entire organisation or a specific program. The approach uses a theory of change or impact map to outline how interventions lead to measurable outcomes, expressed in monetary terms, allowing for a benefit-to-cost ratio calculation. SROI combines qualitative, quantitative, and financial data, along with case studies, to inform future planning. Its key advantage lies in going beyond identifying outcomes to valuing them and calculating their social worth. Steps of a SROI are as follows:



Setting the Scope 	Identification of stakeholders including beneficiary group, finalising the scope- setting the boundary of what is going to be considered for evaluative SROI - stakeholders including beneficiaries, impacts, program period, etc.
Mapping Outcomes 	Creating impact map, identifying investments, and valuing inputs, identifying outcome sand indicators for monitoring / evidencing outcomes

 Evidencing Outcomes	Collecting and analysing outcome data and establishing how long the outcome will last
 Establishing Impacts	Identifying and valuing financial proxies, adjusting outcomes using deadweight, displacement, attribution and drop off, calculating the impact
 Calculating SROI	Programming the value of outcome into future based on the duration for which the impact will last, calculating the net present value including calculation of ratio and undertaking sensitivity analysis.

The process of calculation of SROI largely focuses on deadweight, displacement, attribution, and drop-off in association with any outcomes achieved. All these aspects are generally expressed as percentages and these percentages are applied to the financial proxy of each outcome to arrive at the total impact for the outcome. Therefore, we used a customised framework involving a combination of OECD-DAC and SROI to obtain a full picture of the impact created by APL.

Detailed Methodology

The following section discusses the methodology being employed by KPMG in this impact assessment, which has been broken down into four phases.

PHASE I: CONSULTING AND SCOPING

Activity 1: Inception Meeting

The initial step involved a scoping and kick-off meeting between the KPMG team and APL to finalize the work plan. The key tasks, timelines, and approach for the engagement were discussed. A detailed project plan was prepared by KPMG to guide the execution.

Activity 2: Desk Review and Stakeholder Engagement

The team conducted a thorough review of documents provided by APL, including concept notes, annual reports, and progress or closure reports. Secondary research was also conducted to gain an in-depth understanding of the project locations and interventions. Additionally, discussions with APL and implementing partners helped clarify KPIs, map external stakeholders, and define the sampling strategy and size.

PHASE II: RESEARCH DESIGN

Activity 1: Developing the Impact Map / Theory of Change

An impact map based on the theory of change was created to define the project's outcome and impact parameters. This map serves as a logical framework that illustrates how inputs (actions or activities undertaken) lead to outputs (immediate changes resulting from interventions), which then drive outcomes (short- or medium-term effects linked to those outputs) and ultimately generate impact (positive or negative, intended or unintended, direct or indirect) arising from the interventions.

Impact Map

Stakeholder	Project Objectives	Inputs	Output	Outcome	Evidence Indicator
Farmers, Community members FPO/VI/WUA	To promote basic supplementary irrigation facilities by creating lining of canal is to reduce the seepage losses	Construction and refurbishment of canal lining	Number of families reached out / availed benefits of canal lining	Increase in agricultural production	Changes in availability of cultivated land Changes in cropping pattern by farmers Changes in multi-seasonal cropping
				Access to secure livelihood	Changes in the input cost required for agriculture
				Creation of sustainable water supply	Changes in the irrigation fed agriculture, changes in the availability of water, reduced dependency on the other sources of water
				Creation of employment opportunities	Changes in the labour employment by the local population
	To improve and stabilize surface soil to convert unirrigated land to irrigated land.		No. of families benefited from Group wells & Borewell	Access to potable water	Reduction in water borne diseases (Improvement in health), reduction of drudgery (time saved)
				Access to secure livelihood	Changes in the input cost required for agriculture, adoption of improved agriculture practices
	To organize and strengthen the village institutions around water harvesting and related livelihoods		No. of village institutions benefited	Establishing community stewardship over the common water resources	Community led governance of its resources, effective operations, and maintenance of water structures
				Increase in water storage capacity	Increase in biomass in command area, Improved bio-diversity – presence of bird and animal species, Improved soil health, Reduced soil pollution.

Activity 2: Stakeholder Mapping and Sampling strategy

Stakeholder mapping is the process of identifying all the stakeholders involved in a project and their roles and responsibilities on one map. The main benefit of a stakeholder map is to get a visual representation of all the people who can influence the project and how they are connected. Stakeholders who experience change, whether positive or negative because of the interventions carried out were considered for the study. Furthermore, their pertinence to the scope of the study and relevance to the overall analysis were assessed.



Sampling of stakeholders for engagement was done based on the materiality of the stakeholder and the extent of the impact on the stakeholder. Considering the overall outreach of the project as nearly 180 beneficiaries, the statistically significant sampling has been derived. Additionally, we have taken extra sample stakeholder to derive accurate social return on investment ratio. The stakeholder-wise mode of interaction has been detailed out below:

Stakeholder type	Universe	Sample	Actual coverage
Farmers Benefitted due to water intervention	180	100	60 [#]
PRI Member	-		4

The actual coverage is lesser than the planned of 100 respondents due to unavailability of beneficiaries during the survey

Stakeholder	Reason for Inclusion	Data collection tool
Farmers who have been benefitted due to water harvesting related interventions	Since the farmers are the direct beneficiaries of this study hence it is important to include them to understand if the objectives of this program have been met.	Structured Questionnaire: were developed In-depth Interview: were also undertaken
Farmers who have been benefitted due to agriculture related interventions	Agriculture is a key intervention, Hence, it is critical to get their perspective of the beneficiaries	Structured Questionnaire: were developed In-depth Interview: were also undertaken
Community members benefitted due to potable drinking water	The community members from the intervention area have been a key stakeholder and receiver of the impact hence, it is important to get their perspective.	Semi-structured Questionnaire: were developed
WUA members	In order to understand the governance mechanism established over the water usage, these stakeholders are important	Structured Questionnaire: were developed In-depth Interview: were also undertaken
PRI Members and government officials	In order to understand broad perspective of the community members through elected members	Structured.Questionnaire; were developed In_depth.Interview; were.also.undertaken
Stakeholders excluded from the study		
Community members from periphery of intervention villages	Excluded - It was understood from the implementing team that due to no direct intervention, these stakeholders will remain outside the scope of the intervention	Not applicable

The study includes three categories of beneficiaries: primary, secondary, and tertiary. Farmers, as the direct and intended recipients of project interventions, constitute the primary beneficiaries. Their family members and other community stakeholders constitute the secondary beneficiaries. Additionally, interactions were conducted with institutional stakeholders such as Panchayati Raj Institution (PRI) representatives and government officials, who constitute the tertiary stakeholders.

Activity 3: Development of Data Collection Tools

The study adopted a mixed-methods approach, combining quantitative and qualitative techniques for data collection and analysis. Initially, a comprehensive desk review was conducted to assess existing knowledge and identify gaps for further investigation. Following the literature review and research design, survey instruments were created based on the impact map to gather both quantitative and qualitative data from a sample population using offline methods. These tools captured participants' experiences, attitudes, and behaviors. Additionally, semi-structured interviews were designed for key stakeholders, including experts, PRI members, government officials, community leaders, and practitioners, to gain deeper insights into the research topic and emerging best practices. All tools were aligned with program objectives and the scope outlined in the RFP, with additional questions incorporated to enrich the case study. The tools developed include:

- Tools for individual interactions
- Tools for focus group discussions
- Tools for other key stakeholder interactions
- Development of a research and data collection plan

PHASE III: DATA COLLECTION

Activity 1: Development of Field-Visit Plan

Stakeholder interactions were planned in coordination with APL and the project implementing partner. A detailed timeline was prepared for the field visits, with the implementing partner providing support for scheduling meetings, mobilizing stakeholders, and arranging translators where necessary. The team also consulted with the partner to anticipate potential challenges such as language barriers, cultural sensitivities, or safety concerns. These measures ensured that the data collection process was efficient and conducted in an ethical manner.

Activity 2: Conducting Field Visits

Stakeholder consultations were carried out through individual interviews, focus group discussions (FGDs), and key informant interviews (KII). To ensure effective communication, KPMG included facilitators with prior experience and proficiency in local language. The data collection team underwent training and sensitization sessions to engage stakeholders appropriately. Before the main exercise, tools were pre-tested. Throughout the process, data collection was closely monitored for completeness, accuracy and consistency, including backchecks and triangulation.

PHASE IV: ANALYSIS AND REPORTING

Activity 1: Data analysis and preliminary findings

During the data analysis, both qualitative and quantitative analysis were conducted on the data collected. To enhance accuracy and reliability, the findings from the quantitative data collected on the ground were triangulated to an extent. The collected information was thoroughly analysed on a location disaggregated basis, allowing for a detailed understanding of the specific areas involved. To calculate the social returns and impacts resulting from the program, the SROI framework and OECD-DAC framework were utilized. Additionally, a sensitivity analysis was conducted to examine the results of the ROI. The data and observations obtained during the primary data collection phase and document review

were carefully analysed to inform report writing. The findings were further scrutinised basis the assurance standards for SROI assessments.

Activity 2: Development of Report and Presentation

A comprehensive report was prepared for Asian Paints Limited at the enterprise level, capturing key observations, analyses, findings, and recommendations from the assessment. The report adhered to OECD-DAC and SROI framework guidelines to ensure accuracy and relevance. A draft version was shared with APL for review and feedback prior to finalisation. The finalised report was then presented to APL's leadership. Additionally, separate project-level reports were developed, providing detailed data and analysis. All collected data and corresponding analyses were also shared with APL.



03

Analysis and Findings

4. Analysis and finding

4.1. Demographic profile

Age

The age distribution of respondents indicates that the sample is predominantly middle-aged, with 50% falling in the 40–60 years bracket, followed by a substantial proportion (40%) in the 25–40 years group and a smaller segment (10%) above 60 years. This profile suggests that perspectives captured in the assessment largely reflect individuals in their prime working years likely to be actively engaged in operational decision-making, maintenance, and day-to-day management related to the supply channel lining intervention. The relatively lower representation of respondents above 60 implies that viewpoints of senior stakeholders may be underrepresented; therefore, findings should be interpreted with this caveat. Overall, the composition is suitable for assessing adoption, operational efficiency, and maintenance practices, though complementary engagement with older stakeholders could enrich insights on legacy practices, long-term sustainability, and intergenerational knowledge transfer.

Education

The educational profile of the respondents shows a diverse mix, with the majority having completed schooling up to the middle or secondary level. Specifically, 24% of respondents are educated up to the 8th standard, followed by 22% up to the 12th standard and 20% up to the 10th standard. A smaller proportion (12% each) either have no formal education or have studied only up to the 5th standard, while 10% have pursued education beyond the 12th standard.

This distribution indicates that most respondents possess basic to moderate literacy, which is beneficial for understanding and adopting technical aspects of the supply channel lining intervention, such as water management practices, maintenance protocols, and record-keeping.

Income

Primary..and.secondary.source.of.income

Primary source of income	Percent of Primary source of income
Agriculture	98%
Small business	2%

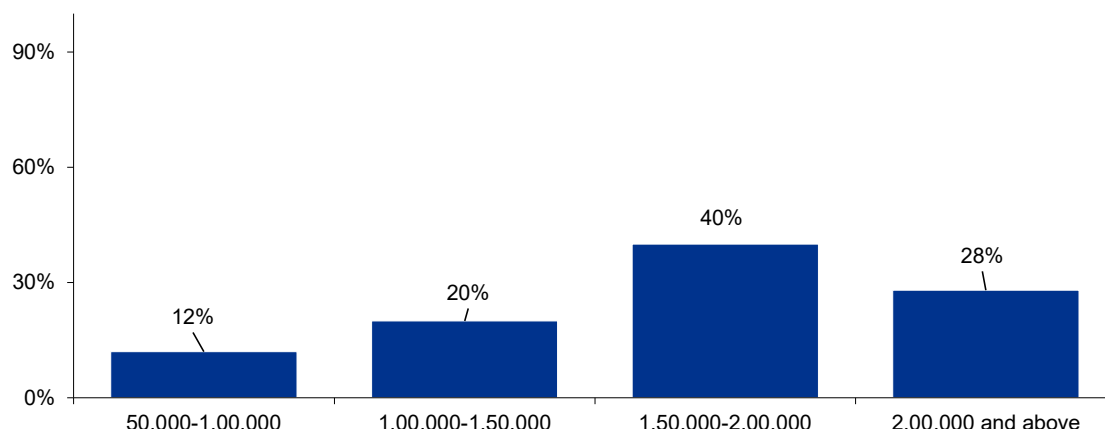
Secondary source of income	Percent of Secondary source of income
Job	15%
Labourer	28%
Livestock	43%
Small business	15%

Agriculture is the primary source of income for nearly all respondent households (98%), with a small proportion reporting small business as their main source (2%). This profile indicates that outcomes of the supply channel lining intervention such as reliability and efficiency of water delivery are likely to have a direct bearing on household production decisions and income stability. As secondary sources,

households report livestock (43%), wage labour (28%), salaried jobs (15%), and small business (15%). The prominence of livestock as a supplementary activity suggests potential indirect benefits through improved fodder availability and water access, while the share engaged in wage labour points to sensitivity to seasonal agricultural cycles and local employment conditions. The presence of salaried jobs and small businesses indicates some diversification; targeted extension support and market linkages could help translate irrigation gains into broader livelihood improvements.

Income profile

Household income (unit in INR)

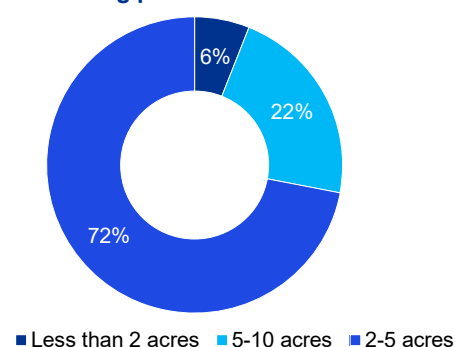


The household income distribution is concentrated in the ₹1,50,000–₹2,00,000 band (40%), with 28% at ₹2,00,000 and above, 20% between ₹1,00,000–₹1,50,000, and 12% between ₹50,000–₹1,00,000 (annual). This profile suggests a mid-range income concentration with a smaller share at the lower band, which has implications for cost-sharing and operation-and-maintenance (O&M) arrangements under the supply channel lining intervention.

Land holding pattern

Most respondents cultivate small to semi-medium landholdings, with 72% operating 2–5 acres, 22% operating 5-10 acres, and 6% cultivating less than 2 acres. This landholding structure indicates that the supply channel lining intervention primarily interface with smallholder production systems where timely and reliable delivery at lower per-farm discharge rates is important. In practical terms, turnout spacing, flow regulation, and scheduling will need to support equitable distribution across numerous smaller parcels, including attention to tail-end reliability.

Land holding pattern



4.2. Crop profile

The crop pattern in both Chuliana and Nonad villages reflects a predominantly cereal-based agricultural system, with rice and wheat forming the major components of the annual cropping cycle. Farmers in both villages commonly cultivate rice during the kharif season, making use of monsoon rainfall and available irrigation to support this water-intensive crop. In the rabi season, wheat is the principal crop, supported by canal water, residual soil moisture, and supplementary irrigation. This rice–wheat rotation is the primary livelihood base for the majority of households and shapes their input use, labour demand, and irrigation requirements.

During the summer (zaid) season, a smaller proportion of farmers diversify into short-duration vegetable crops. These include locally preferred vegetables that can be grown with limited but timely irrigation, contributing additional income and supporting household consumption needs. The shift toward vegetables is generally observed among farmers with assured access to water, and the supply channel lining intervention has the potential to further support such diversification by improving water conveyance efficiency and reliability.

Overall, the crop profile in both villages indicates a strong reliance on the rice–wheat system, with emerging opportunities for summer vegetable cultivation in areas with improved irrigation access. This cropping pattern underscores the importance of reliable water supply for sustaining productivity and enabling gradual diversification.

4.3. Irrigation facility

Respondents reported that following the implementation of the supply channel lining project, all households now have assured access to irrigation facilities. This marks a significant improvement in water availability at the field level, particularly during critical growth stages of major crops. The enhanced conveyance efficiency has reduced water losses and improved the reliability of supply, enabling farmers to plan their irrigation schedules with greater certainty.

Farmers in both Chuliana and Nonad predominantly use flood irrigation for their major crops, particularly paddy in the kharif season and wheat in the rabi season. Flood irrigation remains the most common method due to familiarity, ease of application, and suitability for the cropping pattern, especially in paddy fields where standing water is traditionally maintained. For wheat, farmers typically use field channels or temporary bunds to direct water across the plots. While this method is water-intensive, it is widely practiced due to its simplicity and the existing field layouts.

With improved irrigation access post-intervention, farmers have experienced more timely and uniform distribution of water, which supports better crop establishment and reduces risks associated with delayed watering. The reliability of water has also encouraged some farmers to consider diversifying into summer vegetables, which require frequent irrigation but depend heavily on a dependable water source.

Accessibility of the project across all community groups:

100% respondents reported-

Accessibility for all social groups
– class, caste, race, religion,
differently abled, elderly, etc.



Analysis reflects the level of inclusivity in the project's activities. The KPIs-accessibility for all social groups, is a critical measure of the project's social inclusivity, and the data indicate that the project has performed well, with a 100% accessibility rate. This indicates that the project has taken the necessary measures to ensure that all social groups, regardless of caste, class, race, religion, or other factors, have equal access to the support

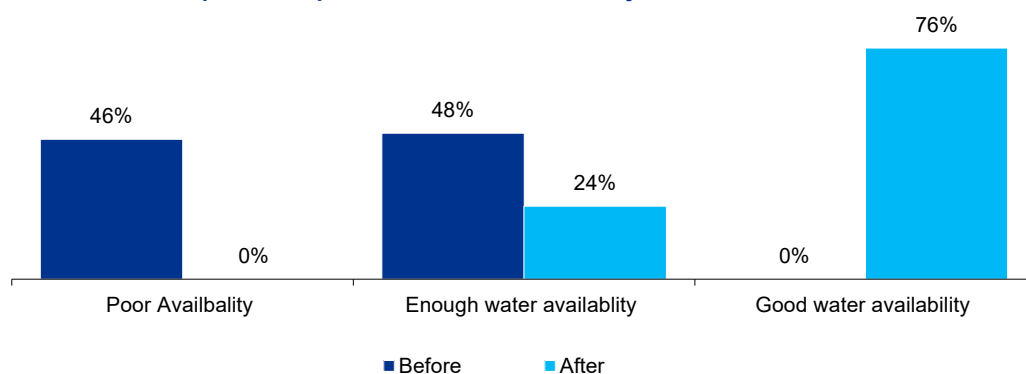
interventions. This demonstrates the project's commitment to social equity and inclusion. By improving accessibility for all social groups, the project can ensure that the benefits of its activities are shared equitably, promoting sustainable development in the region.

As part of the project evaluation, consultations were conducted with beneficiaries to understand their experiences and gather feedback on the interventions. All respondents reported that the water-related activities had a positive impact on their livelihoods, indicating a high level of satisfaction with the project's efforts in this area. Beneficiaries also noted that they were engaged during both the planning and implementation stages, and that their inputs were considered in decision-making. This reflects the project's strong emphasis on participatory processes, which is essential for ensuring community ownership, effective implementation, and long-term sustainability of the interventions.

4.4. Impact on availability and accessibility of water

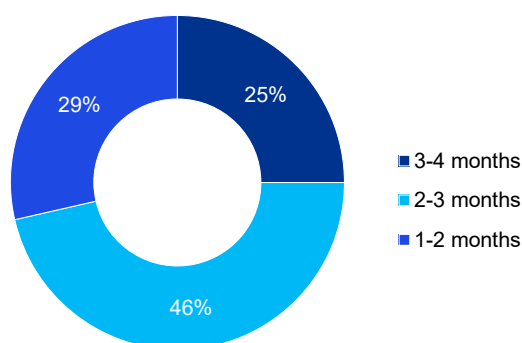
Significant improvement in perceived water availability after the intervention. Before the project, 46% of respondents reported poor water availability, but this dropped to 0% afterwards. Similarly, none of the respondents rated water availability as "good" before the intervention, whereas **100%** rated it as good and enough after the project. The proportion of respondents reporting "enough" water availability also reduced from 48% to 24%, indicating a clear shift from moderate to high satisfaction. Overall, the intervention transformed water access from largely inadequate to consistently reliable for the majority of beneficiaries.

Perception comparison of Water Availability: Pre- and Post-Intervention



The small proportion reporting no improvement may reflect location-specific issues, variations in field-level infrastructure, or differences in cropping patterns and water demand. Addressing these gaps through targeted field assessments and minor adjustments in distribution practices can help ensure that all beneficiaries experience consistent improvements. Overall, the feedback indicates a positive shift in water accessibility for the majority of respondents, strengthening the foundation for improved agricultural productivity and crop management.

Increased duration of water availability



Among respondents who reported improved water accessibility after the intervention, 46% experienced an increase lasting 2–3 months, 29% reported 1-2 months, and 25% reported 3-4 months. This distribution indicates that most households gained an extended irrigation window sufficient to cover critical crop stages within a season, with a quarter reporting a longer extension that can support more complete irrigation rotations and potentially enable short-duration summer vegetables where water demand is manageable.

The variation in reported duration likely reflects differences in location along the channel, turnout management, on-farm conveyance conditions, and local scheduling practices.

4.5. Impact on agricultural productivity

Average irrigated area - Pre intervention	Average irrigated area - Post Intervention	Change	Increase in irrigated area
2.10	2.80	0.70	33%

Unit: Acre

Based on the respondents responses, households own 3.8 acres on average. The average irrigated area increased from 2.1 acres (pre-intervention) to 2.8 acres (post-intervention), indicating an absolute gain of 0.7 acre per household and a relative increase of approximately 33%. In proportional terms, the share of land under irrigation rose from ~55% of total holdings before the project (2.1/3.8) to ~74% after the project (2.8/3.8), an improvement of about 19 percentage points. This pattern is consistent with enhanced conveyance reliability and reduced losses associated with the lined supply channels, enabling farmers to bring additional plots under irrigation within their existing landholdings. The increase supports more timely irrigation for rice and wheat and creates scope for selective adoption of short-duration summer vegetables where water demand is manageable. To sustain these gains, routine O&M of channels, adherence to transparent water rotation schedules, and periodic field-level checks (especially at tail-reaches) are advisable.

Crop	Pre Intervention - Average yield per acre	Post Intervention - Average yield per acre	Change	%
Paddy	18	23	5	28%
Wheat	16	20	4	25%

Unit: quintal

The yield assessment indicates a clear improvement in productivity for both major crops Paddy and Wheat following the intervention. For Paddy, the average yield increased from 18 quintals per acre before the intervention to 23 quintals per acre after the intervention, representing an absolute gain of 5 quintals per acre and a 28% increase. This improvement suggests better water availability during critical growth stages, more uniform irrigation application, and reduced field-level moisture stress, enabling the crop to achieve closer-to-optimal physiological performance.

For Wheat, the average yield increased from 16 quintals per acre to 20 quintals per acre, reflecting an absolute increase of 4 quintals per acre and a 25% improvement. The post-intervention gains align with the crop's sensitivity to timely irrigation during crown root initiation and grain filling stages. Improved supply channel efficiency and enhanced access to timely irrigation contributed to more favourable soil moisture conditions, supporting better tillering, biomass accumulation, and grain development.

Overall, the observed increases in crop yield across both Paddy and Wheat demonstrate the positive impact of improved irrigation infrastructure and water management practices introduced through the project. The magnitude of gain across both crops indicates that the intervention not only enhanced water reliability but also translated into measurable improvements in crop productivity, supporting higher farm output and better livelihood outcomes for the respondents.

4.6. Impact on income from agriculture

Average Income pre-intervention	Average Income post-intervention	Change	Increase
1,21,600	1,55,392	33,792	28%

Unit.INR.

The analysis of household income shows a positive shift following the intervention. The average annual income increased from ₹121,600 before the project to ₹155,392 after the project, reflecting an absolute rise of ₹33,792 and a **28% increase**. This upward trend indicates that the project had a measurable and beneficial economic impact on participating households.

The increase in income can be attributed primarily to improved agricultural productivity, which is consistent with the observed rise in crop yields for Paddy and Wheat. Higher yields translate directly into increased marketable surplus and better returns from the same land area. Additionally, farmers reported that the lining of supply channels reduced water losses, seepage, and time spent managing irrigation, resulting in lower labour requirements for field preparation and water management. This reduction in labour cost combined with more reliable and timely irrigation allowed farmers to allocate resources more efficiently and rely less on hired labour.

Together, these factors suggest that the intervention not only enhanced agricultural output but also contributed to cost savings and improved operational efficiency, strengthening household incomes. The combined effect demonstrates the economic value of improved irrigation infrastructure, both through increased production and reduced expenditure on labour.

4.7. Impact on assets

Among the respondents interacted with, two respondents reported having purchased tractors after the intervention, and no other major asset creation was reported by the remaining beneficiaries. This indicates that, while the project has contributed to improved irrigation, productivity, and income levels, most farmers have not yet transitioned these gains into large-scale capital investments such as machinery, livestock, or infrastructure.

Insights from the Focus Group Discussion (FGD) shed light on this behaviour. Farmers collectively expressed that although their incomes have increased, they are currently prioritising saving over immediate asset creation. Several participants noted that they prefer to observe the performance and stability of the improved irrigation system over multiple cropping seasons before making any substantial financial commitments. Many stated that they would require 3-4 additional seasons of consistent benefits such as stable water availability, reduced labour requirements, and sustained yield improvements before feeling confident enough to invest in higher-value assets.

This cautious approach suggests that farmers are taking a long-term, risk-averse financial strategy, aiming to build a stable buffer of savings before making irreversible expenditures. It also reflects the structural realities of agrarian livelihoods, where investment decisions are heavily influenced by perceived reliability of future cash flows, market conditions, and household needs. As sustained benefits accumulate over future seasons, the likelihood of increased investment in productive assets such as farm machinery, pumps, storage facilities, or livestock is expected to rise.

Overall, while the project has led to improvements in productivity and income, the pattern of limited immediate asset creation indicates that farmers are currently consolidating their financial security and are likely to consider major investments only after experiencing multiple consecutive seasons of stable and enhanced agricultural performance.

4.8. Case study

Before the canal lining work was completed, managing irrigation in our fields was a demanding and labour-intensive task. Water would frequently seep through the unlined canal, reducing the flow and forcing us to put in extra effort to guide water to our fields. Many times, we had to hire additional labour, which not only increased the workload but also added extra financial burden to our farming operations.

However, after the canal lining intervention, the situation changed significantly. The lined canal now ensures a smooth and consistent water flow, reducing seepage losses and helping water reach the fields quickly and efficiently. Irrigation has become far easier, faster, and far less labour-intensive, saving both time and cost for farmers like me.

This improvement has brought great relief, allowing us to manage our fields with more confidence and fewer expenses. The canal lining has truly enhanced agricultural productivity and strengthened the livelihood security of our community.

The background image shows a water treatment facility. In the foreground, there's a concrete channel with turbulent water flowing through it, creating white foam. To the right of the channel, there's a stack of reddish-brown bricks and a yellow tarp. In the background, there's a green field and a line of trees under a blue sky with scattered white clouds. A large, solid blue rectangular overlay covers the left and center portions of the image, serving as a background for the text.

04

Measuring the Social Return

5. MEASURING THE SOCIAL RETURN

As explained in Chapter 2, this report has used two evaluation frameworks which are OECD-DAC and SRoI. Generally, OECD-DAC helps in gaining a qualitative understanding of the impact. On the other hand, SRoI helps organizations in evaluating changes which are being created by measuring social, environmental, and economic outcomes and providing monetary values to represent them. SRoI also helps in understanding the total value generated for every rupee invested for interventions.

There are two types of SRoI:

- Evaluative, which is conducted retrospectively and based on actual outcomes that have already taken place.
- Forecast, which predicts how much social value will be created if the activities meet their intended outcome.

For this study, both evaluative as well as forecasting SRoI has been considered. SRoI primarily involves six stages which are as follows:

Stage 1: Establishing Scope and identifying key stakeholders

Stage 2: Mapping outcomes

Stage 3: Evidencing outcomes and giving them a value

Stage 4: Establishing impact

Stage 5: Calculating the SRoI

Stage 6: Reporting

Stage 1 and Stage 2 have been discussed in-depth in Chapter 2. Further stages have been elaborated in the ensuing sections.

5.1. Evidencing Outcomes

After creating the impact map, outcome indicators were developed based on interactions with beneficiaries and other key stakeholders such as PRI members and implementation teams. Evidence of these outcomes was gathered through both primary and secondary data sources.

Quantity of Change: The quantity of change for the impact map was calculated by extrapolating responses from the sample to the entire beneficiary population. Based on the data collected, a proportionate percentage of total beneficiaries was estimated to represent the overall impact.

The details about the evidence indicators for the outcomes and the quantity of change against each indicator are provided below:

Duration of Outcome:

Some outcomes are long-term, lasting throughout a beneficiary's life, while others persist only as long as the intervention continues. For this SRoI analysis, impacts from infrastructure-related activities are considered for up to 5 years, whereas intangible interventions such as training are assumed to have an impact for 3 years. These timelines are based on the following assumptions:

- Water resource development creates lasting effects on groundwater and surface water levels, with corresponding economic and social benefits

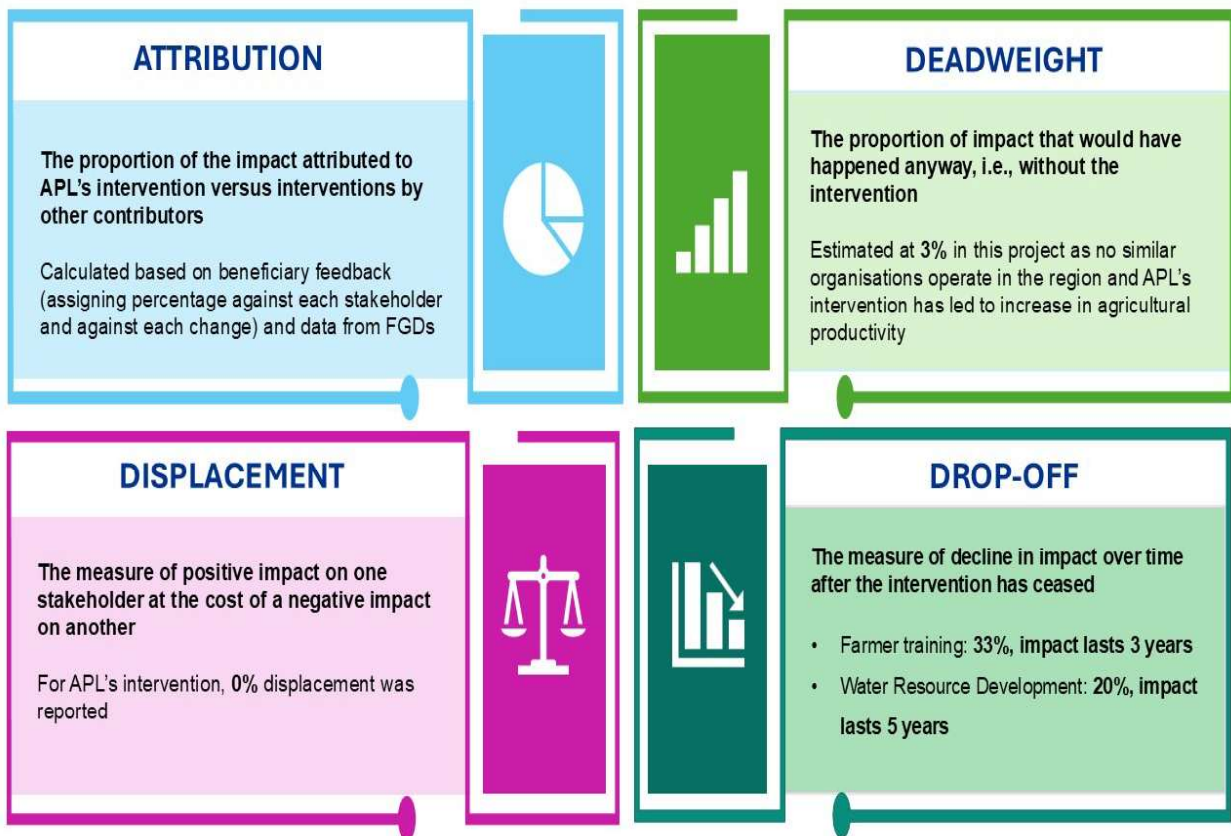
- Training-based interventions require periodic updates due to technological, market, and climate changes
- Based on the nature of interventions and evolving income-generating activities, beneficiary and stakeholder contributions will eventually outweigh the impacts due to initial support from APL

Financial Proxy and Value of Financial Proxy:

To assign value to outcomes, financial proxies were used, following standard practice of using market prices where possible. For intangible outcomes without direct market value, the closest comparable proxy was identified. Refer to the table for outcome-wise details.

5.2. Establishing Impacts

An important part of SROI is 'measuring impact' by accounting for attribution, deadweight, displacement, and drop-off.



5.3. Calculating Impact

$$\text{Impact} = \text{Quantity of outcome} * \text{Financial Proxy Value} * (\text{Attribution} - \text{Deadweight} - \text{Displacement} - \text{Drop-off for each year})$$

SRol is a ratio of cumulative present value for each outcome against the total investment in the project i.e., **SRol = Total NPV of social value / Total investment**

Total Input Value: For SRol calculation, inputs from APL, beneficiaries, and other stakeholders were considered, assuming all contributions collectively created the observed impact. Without any one of these inputs, the current outcomes would not have been achieved. Inputs included financial contributions from APL, beneficiaries, and stakeholders, as well as the time invested by beneficiaries in training and exposure activities. Financial values were provided by APL, while non-financial inputs were estimated in consultation with the APL CSR team.

The below table represents the total cumulative investments from all the stakeholders towards the project from the time period 2023- 2024:

InputType	Inputdescription	Total Inputvalue(INR)
Financial inputs	CSR Funding from APL	2,63,62,052
Total		2,63,62,052

Net Present Value: The Impact Value is adjusted to reflect the Net Present Value (NPV) of the projected outcome values. This is to reflect the present-day value of benefits projected into the future.

A **discount rate of 5%** has been used for the NPV calculations.

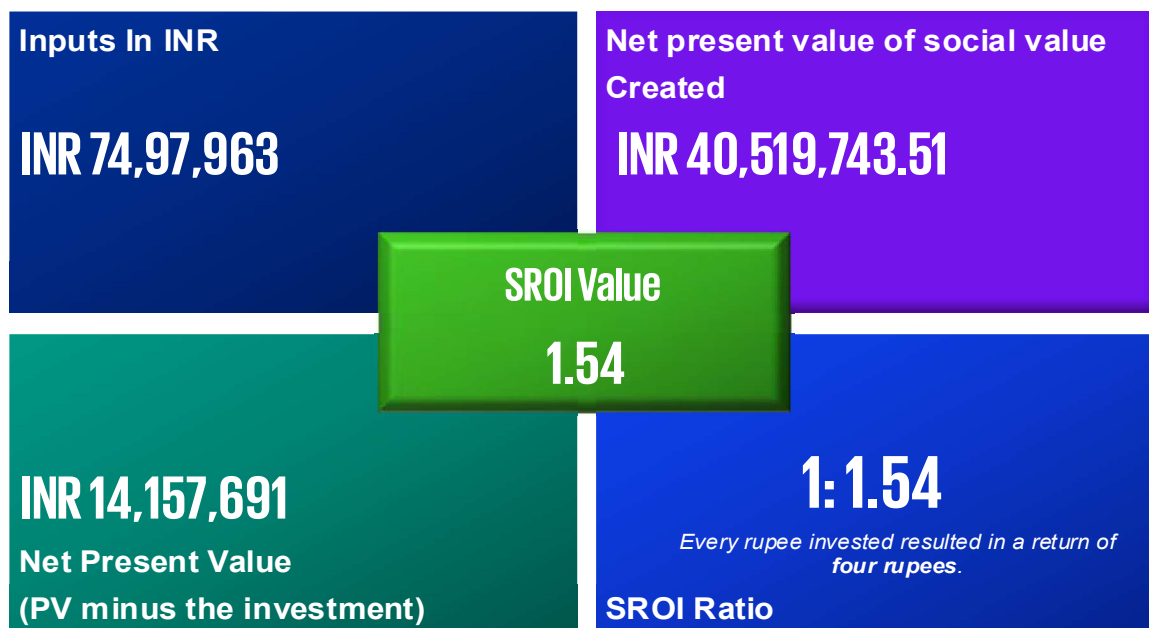
$$\text{SRol} = \{\text{Total present value of impact} / \text{Total input}\}$$

The below table depicts the NPV evaluated as of 2025 and forecasted for 2030 (considering the duration period of 5 years for each outcome):

5.4. SROI Results

The SROI for this analysis- evaluative SROI (as on 2025) and evaluative cum forecast SROI (as on 2029) - is derived from dividing the total present value of the impacts by the total input value of the investment. This is considered because the beneficiaries who have received the support in 2025 would realise the impact for the next 5 years i.e., by 2030.

The below table shows the SROI Value and the SROI Ratio before sensitivity analysis:



For every INR 1 invested, the programme has generated social impact of INR 1.54

Sensitivity Analysis: Our calculations to arrive at the results provided in this report are relied on a variety of primary and secondary data, but the beneficiary data introduced a higher level of uncertainty. This survey was utilized to estimate the attribution, additionality of APL interventions to specific outcomes, and the duration of time the impact would last.

Sensitivity Analysis was used to test variables and assumptions to ensure that conservative estimates have been used in arriving at the SROI. For each impact area, we tested the impact of using one standard deviation above and below the average response to attribution survey questions.

With sensitivity computation, the value of the APL program can then be stated in a range. For every INR 1 invested, the social value generated is between INR 1.22 and INR 1.62.

Sr. No.	Base case Parameters	Base case SROI	Test case Parameters (Min-Max)	Test case SROI
1	Deadweight	1.5	Deadweight is 0%	1.56
			Deadweight is 8%	1.46
2	Displacement		Displacement 0%	1.54

Sr. No.	Base case Parameters	Base case SROI	Test case Parameters (Min-Max)	Test case SROI
3	Attribution		Displacement is 5%	1.46
			Attribution is 85%	1.62
			Attribution is 75%	1.36
			Drop-off is 3 years	1.22
4	Drop-off		Drop-off is 5 years	1.54

Limitations & assumptions for the SROI study

- The study is limited to the sample of beneficiaries interacted with on-ground during field visits.
- The survey conducted with sample beneficiaries is subjective in nature.
- The study is limited to the recall of the participants in the study.
- The financial proxies are limited to publicly available resources. The financial proxies are representative and based on professional judgement, but it may not be reflective of actual costs incurred due to several considerations. (Refer to Annexure for details of financial proxies)
- The deadweight, displacement, drop off values are derived from the responses from the stakeholders.
- While information obtained from the public domain or external sources has not been verified for authenticity, accuracy, or completeness, we have obtained information, as far as possible, from sources generally considered to be reliable. However, it must be noted that some of these websites/third party sources may not be updated regularly. We assume no responsibility for the reliability and credibility of such information.
- SROI for the project may appear low due to contextual factors not fully captured in standard assessments. Many projects have a low direct beneficiary count, resulting in limited monetizable returns, and beneficiary recall may also be low when benefits emerge gradually. In several areas, high baseline agricultural productivity reduces measurable incremental gains. Additionally, many water structures hold significant religious, social, and cultural value for communities benefits that are deeply impactful but not easily quantifiable, thereby contributing to a lower calculated SROI despite strong community relevance.

The background image shows a river with a concrete weir. Water is flowing over the weir, creating white foam and splashing. The river is bordered by a concrete wall on the left and a concrete curb on the right. In the background, there are green trees and a pile of bricks. The sky is visible through the branches of the trees.

05

Way Forward

6. Way forward

Moving ahead, the project must prioritize strengthening community institutions and promoting equitable participation to ensure long-term sustainability of water resource interventions. A central focus should be on institutionalizing gender-inclusive practices across all stages of the project cycle. This includes creating structured spaces for women to contribute to planning, monitoring, and governance processes, supported by targeted capacity-building initiatives on irrigation management, O&M, and leadership. By cultivating women-led groups, ensuring their representation in WUAs, and providing continuous facilitation support, the project can foster more balanced decision-making and enhance the overall effectiveness of water-related interventions.

Equally important is the formalization and strengthening of Water User Associations so that they evolve into responsible, functional, and community-owned institutions. Clear governance frameworks, simplified SOPs, charters, and regular orientation sessions will help build accountability and clarity among WUA members. Alongside institutional strengthening, the project must reinforce quality assurance systems to address gaps reported in the implementation cycle. Introducing third-party quality checks, enabling community-based monitoring, and establishing accessible grievance redressal channels will help ensure transparency and timely issue resolution. Regular joint inspections and preventive maintenance plans should be adopted to safeguard infrastructure longevity.

As the project progresses, embedding these improvements within routine operations will contribute to stronger community ownership and more resilient resource management systems. A consistent focus on capacity-building, inclusive governance, quality assurance, and participatory monitoring will ultimately enhance the impact of water harvesting structures, improve agricultural outcomes, and ensure that benefits are equitably shared across all groups laying the foundation for a sustainable, community-driven water management model.

Key Observations	Recommendations
1. Low participation of women across the project cycle; decision-making remains predominantly male-driven. During field interactions, it was noted that women were minimally involved in planning, monitoring, or decision-making processes related to irrigation management or asset maintenance.	Strengthen women's engagement through structured inclusion mechanisms. Introduce targeted training and capacity-building sessions for women on irrigation practices, water governance, and O&M. Integrate gender-mainstreaming strategies by ensuring women's representation in WUAs, exposure visits, and project consultations. Facilitate a platform such as women-led water committees or joint decision-making norms to improve their participation and long-term project sustainability.
2. Informal Water User Associations (WUAs) formed for Water Harvesting Structure (WHS) beneficiaries lacked clarity on their roles and responsibilities. Members were unaware of expectations regarding water scheduling, O&M, desilting responsibilities, or collective decision-making.	Formalise and strengthen WUAs through clearer governance structures. Conduct structured orientation sessions outlining roles, responsibilities, and operational protocols. Develop simple, visual guidelines on water distribution, O&M practices, and conflict resolution. Introduce a WUA Pledge or Charter, signed by all members, committing them to equitable water management and routine maintenance. Periodic refresher sessions and monitoring support should be institutionalised.
3. Farmers in Nonad reported concerns related to the 2023–24 implementation cycle, specifically noting poor material quality and early deterioration of the lining. Some sections of the channel showed cracks or wear within a short	Strengthen quality assurance and grievance redressal mechanisms. Introduce third-party quality checks at key stages of construction. Ensure contractors adhere to prescribed technical specifications and material standards. Establish a simple reporting mechanism for farmers to raise concerns during and after implementation. Conduct joint inspections with WUA representatives and technical staff to identify vulnerable sections and schedule timely repairs. Additionally, incorporate preventive maintenance guidelines and periodic monitoring visits to avoid accelerated deterioration.

Annexure-

Financial Proxies used for SRoI

Outputs	Outcomes	Indicators and Sources	Valuation approach (monetary)	Monetary valuation
Construction and refurbishment of canal lining	Creation of sustainable water supply through increment in availability and accessibility of water	Reduction in the annual utilisation of ground water due to channel lining Saving in ground water overdraft	Groundwater abstraction charges for Drinking and Domestic use (Central Water Commission) per cubic metre	2.00
		Increase in agriculture produce (Number of farmers x Avg increase in yield in the year)	Average increase in agriculture production is 5 Q/ acre MSP of Paddy in Haryana- Rs. 2300/Q	17,250.00
		Reduction in Cost of Irrigation (Number of farmers using Mobile Engines for irrigation x Avg hours of irrigation)	Average reduction in Irrigation cost indicated by respondents (12,000 INR)	12,000.00
		Reduction in labour/efforts	Times saved due to reduced efforts (2 mandays per irrigation cycle) Minimum wage* # of days	6,000.00
Extended impact on community (beneficiaries and their family members)	Improved wellbeing for the beneficiaries and their family members	Improvement in Health seeking behaviour (Number of respondents reporting increased consumption of milk and vegetables)	Basis NSS 68th Round (2011-12), MPCE in Rural areas on Fruits (Rs.41) and Vegetables (Rs.95). Inflation Adjusted Cost (using Cost Inflation Index) for MPCE at 2021-22 prices comes out to be Fruit-70.63/- and Vegetable-163.67/-. For a family of 4 members, the yearly expenditure has been considered for calculation.	11,246.61
		Improved sensitization towards child's education (Number of respondents reporting increased spend on child's education)	Basis NSS 68th Round (2011-12), MPCE in Rural areas on Education is Rs.50. Inflation Adjusted Cost (using Cost Inflation Index) for MPCE at 2021-22 prices comes out to be Fruit-86.14/-. For a family of 2 children, the yearly expenditure has been considered for calculation.	2,067.36



IMPACT ASSESSMENT OF JAL SASHAKTA PROJECT PHASE 4, SATARA, MAHARASHTRA

March 2026

Asian Paints Limited



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Strictly Private and Confidential

Mr. Amit Kumar Singh
Vice-President, Corporate affairs & CSR
Asian Paints Limited
Mumbai, Maharashtra– 400055
India

24 March 2026

Subject: Final report for Impact assessment of CSR Projects

Dear Mr. Amit Kumar,

We appreciate the opportunity to assist Asian Paints Limited in providing **Impact assessment of CSR Projects** related services.

Please find enclosed our final report, which has been prepared in accordance with the scope and terms stated in our engagement letter dated 3rd February 2026. With this deliverable, we have completed our obligations as stated in our engagement letter.

It has been our privilege to have this opportunity to work with you, and we look forward to continuing our relationship.

Yours sincerely

Signed by:

67B595C3ADEFC43E...
Jignesh Thakkar,
Partner,
KPMG Assurance and Consulting Services LLP

Disclaimer

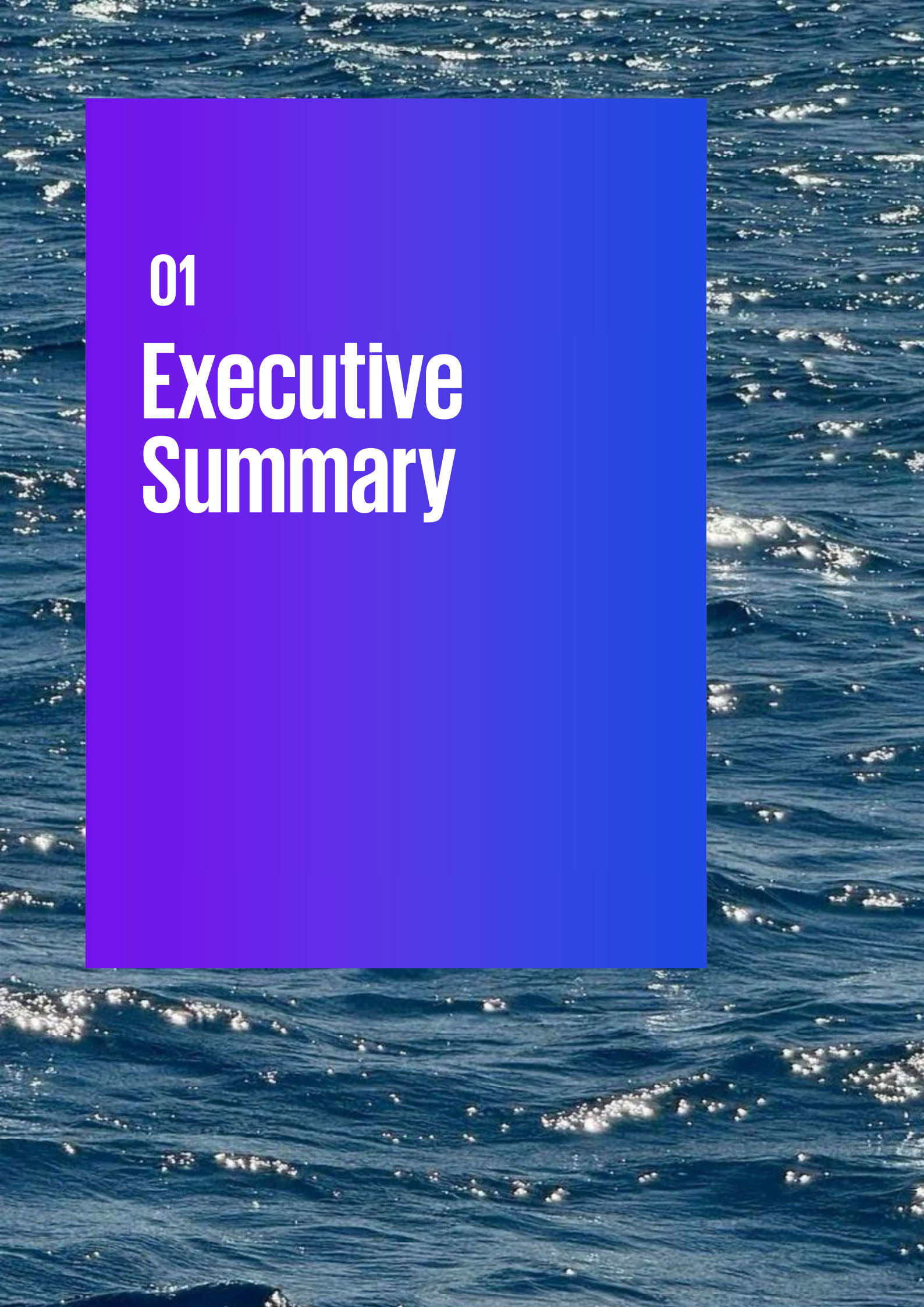
- *Our report has been prepared solely for Asian Paints Limited. KPMG does not accept or assume any liability, responsibility, or duty of care for any use of or reliance on this report by anyone, other than our Client, to the extent agreed in the Agreement.*
 - *Impact assessment is limited to the projects allocated by Asian Paints Limited*
 - *OECD DAC and SROI framework has been used in preparing the report as detailed herein. No professional assurance standards ex. ISAE, SSAE etc. have been applied while preparing this report and accordingly the rigors applicable under such standards are not applicable for the scope covered by our report.*
 - *Procedures, analysis and recommendations, if any, are advisory in nature basis the information collected from various sources both publicly and those provided by the client.*
 - *Our observations represent our understanding and interpretation of the facts based on reporting of beneficiaries and stakeholders.*
 - *Our report, by its very nature, may involve numerous assumptions, inherent risks, and uncertainties, both general and specific. The conclusions drawn shall be based on the information available with us at the time of preparing the report.*
 - *We shall not perform an audit and shall not express an opinion or any other form of assurance. Further, comments in our report are not and shall not be intended, nor should they be interpreted to be legal advice or opinion. Client shall be fully and solely responsible for applying independent judgment, with respect to the findings included in the report, to make appropriate decisions in relation to future course of action, if any. We shall not take responsibility for the consequences resulting from decisions based on information included in the report.*
 - *While information obtained from the public domain or external sources has not been verified for authenticity, accuracy, or completeness, we have obtained information, as far as possible, from sources generally considered to be reliable. However, it must be noted that some of these websites/third party sources may not be updated regularly. We assume no responsibility for the reliability and credibility of such information.*
 - *Our work shall be limited to the specific procedures described in this Engagement Letter and shall be based only on the information and analysis of the data obtained through interviews of beneficiaries supported under the programme, selected as sample respondents and discussions with APL team and stakeholders of the programme. Accordingly, changes in circumstances or information available after the review could affect the findings outlined in our report.*
 - *In no circumstances shall we be liable, for any loss or damage, of whatsoever nature, arising from information material to our work being withheld or concealed from us or misrepresented to us by any person to whom we make information requests.*
 - *In accordance with its policy, KPMG advises that neither it nor any of its partner, director or employee undertakes any responsibility arising in any way whatsoever, to any person other than Client in respect of the matters dealt with in this report, including any errors or omissions therein, arising through negligence or otherwise, howsoever caused.*
 - *In connection with our report or any part thereof, KPMG does not owe duty of care (whether in contract or in tort or under statute or otherwise) to any person or party to whom the report is circulated to and KPMG shall not be liable to any party who uses or relies on this report. KPMG thus disclaims all responsibility or liability for any costs, damages, losses, liabilities, expenses incurred by such third party arising out of or in connection with the report or any part thereof.*
 - *By reading our report, the reader of the report shall be deemed to have accepted the terms mentioned hereinabove.*
-

List of Abbreviations

APL	Asian Paints Limited	mS/cm	Milli Siemens per centimeters
ATMA	Agricultural Technology Management Agency	MSP	Minimum Support Price
BCM	Billion Cubic Meters	NITI	National Institution for Transforming India
BIS	Bureau of Indian Standards	NMAET	National Mission on Agricultural Extension and Technology
BOD	Biochemical Oxygen Demand	NPV	Net Present Value
CGWB	Central Ground Water Board	O&M	Operation and Maintenance
CGWB	Central Ground Water Board	OC	Organic Carbon
CPCB	Central Pollution Control Board	OECD-DAC	Organisation for Economic Co-operation and Development-Development Assistance Committee
CSR	Corporate Social Responsibility	OOPE	Out-of-Pocket Expenditure
CWC	Central Water Commission	pH	Potential of Hydrogen
dS/m	Deci Siemens per Meter	ppm	Parts Per Million
EC	Electrical Conductivity	PRI	Panchayati Raj Institution
FGD	Focus Group Discussion	qtl	quintal
FIG/FI	Farmer Interest Group	RFP	Request for Proposal
FPO	Farmer Producer Organization	ROI	Return on Investment
ft	Feet	SAR	Sodium Adsorption Ratio
HH	Household	SDG	Sustainable Development Goal
INR	Indian Rupees	SEZ	Special Economic Zone
IS	Indian Standards	SHG	Self-Help Group
kg/ha	Kilogram per Hectare	SRI	System of Rice Intensification
kg/ha	Kilograms per hectare	SRoI	Social Return on Investment
KII	Key Informant Interview	TDS	Total Dissolved Solids
KPI	Key Performance Indicator	TOC	Theory of Change
LPCD	Litres Per Capita Per Day	tons/acre	Tons per acre
me/L	Milliequivalents per litre	VI	Village Institution
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act	WASH	Water, Sanitation and Hygiene
MIDC	Maharashtra Industrial Development Corporation	WHS	Water Harvesting Structure
MPCE	Monthly Per Capita Expenditure	WUA	Water User Association

Contents

1.	Executive Summary	5
2.	Introduction.....	9
2.1.	Background	9
2.2.	Asian Paint Limited	10
2.3.	About The Study.....	10
2.4.	About The Project	11
2.5.	About Implementing Partner	12
2.6.	Project Geography	12
3.	Approach And Methodology.....	15
3.1.	Our Approach.....	15
3.2.	Oecd-Dac.....	15
3.3.	Social Return On Investment (Sroi)	17
3.4.	Detailed Methodology	19
4.	Analysis And Finding.....	26
4.1.	Demographic Profile	26
	Household Income	27
	Land Holding Pattern	27
	Crop Profile	28
	Irrigation Facility.....	29
4.1.1.	Impact On Availability And Accessibility Of Water.....	30
4.2.	Impact On Duration Of The Water Availability	30
4.3.	Impact On The Surface Water	31
4.4.	Impact On Agricultural Productivity.....	32
4.5.	Impact On Crop Productivity.....	33
4.6.	Impact On Income From Agriculture	33
4.7.	Impact On Animal Husbandry.....	33
4.8.	Impact On The Environment	35
4.9.	Impact Of Silt Application On Soil Health	35
4.10.	Case Study.....	36
5.	Measuring The Social Return	39
1.1.	Evidencing Outcomes	39
1.2.	Establishing Impacts	40
1.3.	Calculating Impact	40
1.4.	SROI Results	41
6.	Way Forward	44



01 Executive Summary

1. EXECUTIVE SUMMARY

India is experiencing an escalating water crisis driven by rapid population growth, climate variability, and declining groundwater levels. Rural regions, particularly semi-arid zones such as Khandala block in Satara district, face acute challenges related to seasonal water scarcity, reduced groundwater recharge, and shrinking surface water bodies. These conditions place significant pressure on agrarian communities whose livelihoods depend heavily on reliable water availability for irrigation, livestock, and domestic needs. Recognizing the urgency of addressing these systemic issues, Asian Paints Limited (APL) has integrated water stewardship as a core pillar of its CSR strategy, focusing on long-term, community-centred solutions.

Asian Paints Limited has imbibed the philosophy of transformation in its DNA and has consistently reinvented the industry. Aligning with this approach, the company's CSR efforts are focused on achieving holistic and sustainable community development. There is a strong emphasis on fostering robust trust-based relationships with communities located in the vicinity of its plants and people in the unorganized sector. These inclusive development initiatives are concentrated on health and hygiene, water conservation, skill development, and disaster management.

The Jal Sashakta Project – Phase 4, implemented in partnership with Vanrai, aims to rejuvenate traditional water bodies, enhance groundwater recharge, and build resilience in water-stressed agrarian landscapes. The project's interventions primarily desilting and repairing ponds across Khandala block were designed to increase water storage capacity, extend water availability across seasons, and improve agricultural productivity for small and marginal farmers. Beyond physical infrastructure, the initiative sought to foster community participation, encourage sustainable agricultural practices, and strengthen local institutions involved in resource management.

KPMG conducted this impact assessment covering interventions implemented in FY 2023-24, using OECD-DAC and Social Return on Investment (SROI) frameworks and this was conducted using a mixed-method approach. For this study, KPMG interacted in four villages in the Khandala block of Satara, including direct beneficiaries and indirect beneficiaries, which include farmers, community members, PRI members and staff of the implementing agency.

Key Output Numbers

265225

Water potential
created in KL

608

Beneficiary covered

Key highlights from the impact assessment study



Increase in water level in wells/borewells

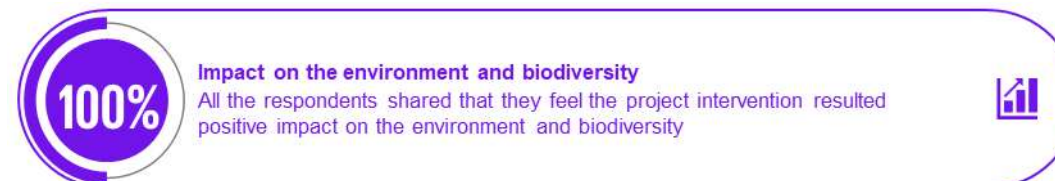
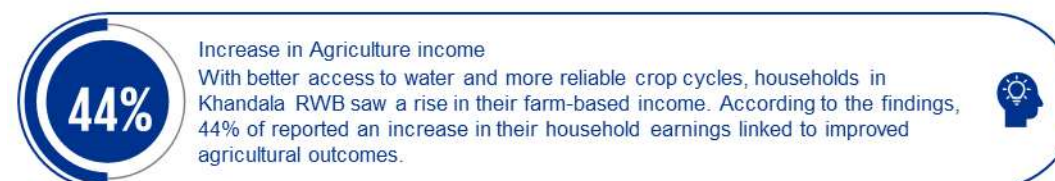
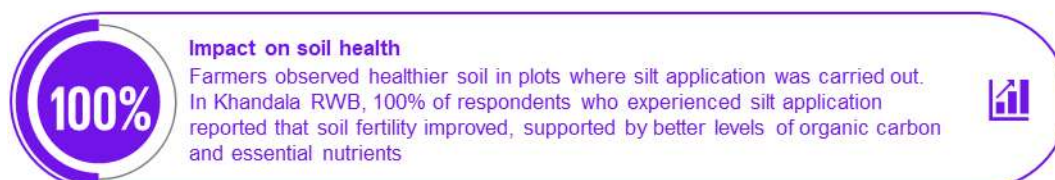
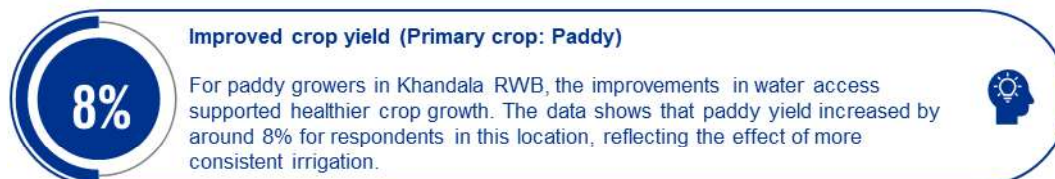
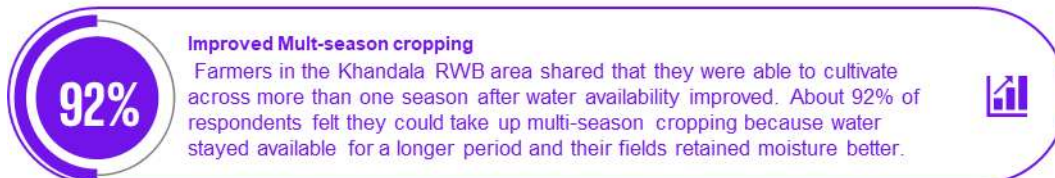
Groundwater levels showed a steady improvement, with winter levels rising by about 5 feet and summer levels by around 8 feet, while monsoon levels stayed the same at 5 feet before and after the intervention.



Improved water availability for irrigation purpose post-monsoon

After the project, 88% of the respondents shared that water for irrigation lasted longer into the post-monsoon period. About 52% experienced 2–3 months of water availability, 39% experienced 3–4 months, and 9% had access for 1–2 months





Findings basis IRECS framework

I- Impact

- Impact will be evaluated through key outcome indicators including groundwater improvement reported by 94% of respondents, enhanced post-monsoon water availability for up to 3–4 months for most households, and fully improved irrigation access with ratings shifting from poor to good. Additional criteria include universal adoption of multi-season cropping, a 20% rise in paddy yield, a 36% average increase in agricultural income, and improved livestock outcomes reported by 60% of beneficiaries. These measures reflect strengthened water security, enhanced agricultural productivity, and improved rural livelihoods resulting from the intervention.

R- Relevance

- Majority of respondents dependent on agriculture
- Interventions such as check dams, desilting, contour trenches, and soil moisture conservation directly respond to the community's need for reliable water access and improved irrigation.

E- Efficiency

- Project completed within set timelines

C-Coherence

- Project Alignment with National Priorities- Directly converges with Jal Shakti Abhiyan and 'Catch the Rain' campaign of Ministry of Jal Shakti.
- Project align with the SDGs as mentioned, SDGs 6, SDG 1, SDG 2, SDG 15

S-Sustainability

- 100% of respondents shared that this project has brought a positive change in their life
- 100% of respondents shared good ratings for the project
- Positive impact on biodiversity due to increased surface water availability
- Water user groups needs to strengthen for secure maintainance of the water assets created

SROI – Results

1

Total CSR Investment

INR 10,481,189

2

SROI Ratio

1:2.4

3

Sensitivity range

₹2.11 – ₹2.8 per ₹1 invested.

The Jal Sashakta Project- Phase 4 has demonstrated measurable improvements in water security, agricultural resilience, and ecological restoration across the intervention villages. Through the rejuvenation of traditional water bodies, the project succeeded in extending water availability by several

months, enhancing groundwater recharge, and enabling farmers to expand their cultivated and irrigated areas. These gains directly translated into higher crop productivity, increased annual farm incomes, and strengthened livelihood stability for agriculture-dependent households. The environmental improvements including increased green cover and biodiversity further underscore the project's broader ecological impact.

The assessment also affirms that the initiative has generated strong social value, with an SROI of **₹2.4 for every ₹1 invested**, reflecting substantial returns for the community and the ecosystem. While the project's physical and economic outcomes have been significant, the initiative has also highlighted the importance of strong community institutions and equitable participation to sustain these gains over time. Overall, Jal Sashakta Phase 4 stands as a compelling example of how integrated watershed interventions can accelerate rural development and climate resilience when implemented collaboratively.

Way Forward

To build on the strong foundation established by the project, the next phase of action must focus on institutional strengthening, capacity building, and deeper community ownership. Enhancing the functionality of Water User Associations (WUAs) and ensuring active participation particularly of women will be critical for effective water governance, equitable distribution, and long-term sustainability. Additionally, the introduction of water budgeting, scientific crop planning, and the promotion of less water-intensive agriculture practices can help prevent over-extraction and safeguard shared water resources.

There is also significant potential to scale the intervention across neighbouring geographies facing similar water stress. Strengthening collaboration with Panchayats and district-level departments can unlock convergence opportunities and additional resources for expanding water conservation measures. Establishing control wells, integrating hydro-geological assessments, and introducing energy-efficient systems such as solar pumps will further enhance the technical robustness of future efforts. By embedding these strategic improvements, Asian Paints and Vanrai can ensure that the project evolves into a sustainable, community-led model for long-term water stewardship and rural resilience.

2. INTRODUCTION

This chapter consists of an overview of the water stress in Indian context and Asian Paints Ltd.'s CSR efforts to address the water issue. It provides an overview of the project, implementing partners, project geographies, scope, and purpose of the study.

2.1. Background

Water security has reached a critical inflection point in India because of rapid development, population pressure and climate volatility. As of 2025, India sustains approximately 18% of the global population with only 4% of the world's freshwater resources.¹ The NITI Aayog Annual Report (2024-25) warned that the country's average per capita water availability is projected to decline to 1,341 cubic meters by late 2025, pushing the nation further into the "water-stressed" category (threshold < 1,700 m³) and nearing the "water-scarcity" limit of 1,000 m³.² With abundant flow in Ganga and Brahmaputra basins and much lower availability in west and south-western basins, regional disparities exist that make proper management of local demand essential.

India's water budget remains heavily dependent on a fluctuating monsoon and there are both quantity and quality concerns with groundwater. According to the Dynamic Ground Water Resource Assessment (2024) published by Central Ground Water Board (CGWB), the total annual groundwater recharge is estimated at 446.90 Billion Cubic Meters (BCM), with an annual extractable resource of 406.19 BCM. While the average extraction rate is 60.47%, regional disparities are severe. Out of a total of 6,746 assessment units, approximately 11.1% of assessment units, primarily in Punjab, Haryana, Rajasthan, and Delhi, are classified as "over-exploited", where extraction exceeds natural replenishment.³ On groundwater quality, CGWB's Annual Ground Water Quality Report 2024 highlights localized exceedances of nitrate, fluoride, and arsenic in shallow aquifers across different states, varying seasonally with recharge and agricultural inputs.⁴ The report mentions Triple Contamination Challenge in India's groundwater, referring to the three most widespread contamination threats, each stemming from different sources- nitrate (anthropogenic), fluoride (geogenic) and salinity/electrical conductivity (EC).

Surface water pollution is another important concern. Around 70% of India's surface water is contaminated, ranking the country 120th out of 122 on the global Water Quality Index. Central Pollution Control Board's latest report titled "Polluted River Stretches for Restoration of Water Quality" identifies 150 polluted stretches nationally, including 35 Priority-1 segments where Biochemical Oxygen Demand (BOD) is greater than 30 mg/L. Wastewater from various sources, intensive agriculture, industrial activities, and untreated urban runoff contribute to this pollution, compromising the health of both humans and aquatic ecosystems.

Climate change has added to the risk of water stress. In 2024-25, India experienced a 55% increase in record heatwaves, accelerating evapotranspiration and increasing the demand for irrigation which consumes over 80% of freshwater in rural areas.⁵ Because of climate change, the monsoon pattern has become erratic, characterised by long dry spells followed by intense cloudbursts. When this happens, the natural soil infiltration is affected which results in flash floods and reduced aquifer recharge.

In this challenging water landscape, the importance of watershed management becomes apparent. Watershed management is not merely a focus on water projects but involves a holistic approach to

¹ United Nations World Water Development Report 2024, sourced at <https://unesdoc.unesco.org/ark:/48223/pf0000388948>

² NITI Aayog Annual Report 2024-25 [NITI AAYOG, India | Annual Report 2024-25](#)

³ [Press Release: Press Information Bureau](#)

⁴ CGWB Annual Ground Water Quality Report 2025 [CGWB - Publications Repository](#)

⁵ [India's Water Crisis: Why Climate-Resilient Governance is Urgent](#)

land-use practices, afforestation, and soil and water conservation. Watershed approaches work at the hydrological unit where supply, demand and quality intersect. Steps like planting trees and protecting stream banks, building small check-dams and farm ponds, contouring fields to slow water, using drip/sprinkler irrigation and involving local communities in simple monitoring make more rain soak into the ground, reduce silt in reservoirs, steady flows in the dry season and improve drinking-water availability. Such a holistic approach that addresses not only water scarcity but also soil conservation and natural resource management is crucial for ensuring a sustainable and resilient water future for the country.

2.2. Asian Paint Limited

Asian Paints, headquartered in Mumbai, is one of the largest paint companies in India. Started in 1942, the company currently operates in 14 countries with products sold in over 60 markets. Asian Paints operates in various segments, including decorative paints, industrial and automotive coatings, and home décor products like furniture, lighting, and wallpapers. APL focuses heavily on research and development, which helps it keep introducing new and improved products. The company has also launched eco-friendly and sustainable paints, in line with the growing global preference for environmentally responsible solutions.

Asian Paints goes beyond its core business by actively contributing to social and environmental well-being through its Corporate Social Responsibility (CSR) initiatives. Guided by its values of trust, fairness, and care, the company focuses on creating long-term impact in communities around its operations. Its programmes address key areas such as water conservation, healthcare and skill development, leveraging its expertise to deliver meaningful change. The objective is to empower marginalised communities and improve quality of life by tackling critical social, economic, and environmental challenges. These efforts are closely aligned with the United Nations Sustainable Development Goals (SDGs), particularly, Goal 1 (No Poverty), Goal 2 (Zero Hunger), Goal 3 (Good Health and Well-being), Goal 6 (Clean Water and Sanitation), Goal 8 (Decent work and economic growth), Goal 11 (Sustainable cities and communities) and Goal 17 (Partnership for the goals).

Asian Paints runs several initiatives in water conservation, health and hygiene, skill development, and disaster relief. Its flagship Water Stewardship Program called the Watermark program, focuses on improving water availability and security in communities around its plants. The program combines supply-side measures like pond cleaning, desilting, check-dam construction and renovation, canal lining, and integrated watershed management with demand-side interventions such as micro-irrigation, System of Rice Intensification (SRI), and sustainable farming practices. These efforts aim to restore water bodies, reduce soil erosion, and recharge groundwater, while promoting efficient water use in agriculture. By adopting a holistic approach that includes soil health and pest management, Asian Paints helps strengthen ecosystem services and improve livelihoods.

2.3. About the Study

To understand the impact created by its interventions implemented in FY 2023-24, Asian Paints Ltd. empanelled KPMG to facilitate the impact assessment of its **Jal Sashakta Project-Phase 4**. The objective of this study was to assess the impact of these water stewardship activities on the beneficiaries and stakeholders covered under the projects. The study aimed to understand the immediate, medium, and longer-term impact of the interventions on the targeted beneficiaries:

The duration considered for this study is financial year 2023-24.

Impact on Access & Availability of Surface & Ground Water	• To understand the impact on ground-water recharge based on well recharge data • To understand the duration of water availability post-monsoon (in months)
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	To understand the impact of water accessibility, availability & livelihood of the farmers
Impact on Potable Water	- To assess the impact on drinking water availability and quality due to rainwater water harvesting structures. - To assess impact on other areas like drudgery reduction, drop in health issues around the drinking water etc.
Impact on Agricultural Land & Practices	- To assess impact on season wise cropping pattern led by the availability of water in the area. - To assess impact on soil health due to balance use of fertilizer because of adoption of recommendations of soil testing report and application of organic fertilizers - To assess impact on knowledge level of the farmers about improved agricultural practices.
Impact on Farmer's Livelihood	- To assess impact of water availability on crop production (yield/acre) - To assess impact of water availability on productivity of livestock animals - To assess impact on net return/acre per farmer. - To assess the impact on livelihood opportunities created through the programme.
Other Impact Areas Apart from Water Rejuvenation & Canal Lining	- To assess knowledge and adoption level of water efficient agricultural and risk mitigation farm practices. - To assess level of ownership by the community in the asset created: Whether community-based institutions had been formed and taking care of maintenance aspects of the assets created under the project.

2.4. About the project

Asian Paints' Water Stewardship Programs signifies the company's dedication to sustainable practices and responsible corporate citizenship. By addressing the challenge of water scarcity through community partnerships and integrated initiatives, Asian Paints aims to make a positive impact on both its operations and the communities it serves.

The Jal Sashakta Project-Phase 4 in Khandala, Satara, focused on rejuvenating traditional water bodies to improve water availability and groundwater recharge. The project involved desilting and repairing selected ponds across multiple villages, increasing their water holding capacity and ensuring better water levels in nearby wells. These interventions aimed to create sustainable water resources that support agriculture and reduce water scarcity in the region. Alongside physical restoration, the project promoted community participation and awareness about water conservation. By improving water storage and supply, the initiative helped farmers secure irrigation during dry spells, enhanced crop productivity, and strengthened rural livelihoods. The overall goal was to build long-term resilience against drought and foster sustainable development in the watershed area.

The objectives of the project are:

- To desilt from the identified water bodies
- To rejuvenate selected water bodies

- To increase the water holding capacity of water bodies which could help in increasing the water level of nearby wells

2.5. About implementing partner

Vanrai is a non-profit organization founded by Padma Vibhushan Dr. Mohan Dharia in 1986 with a mission to restore rural ecosystems and improve livelihoods through community-driven action. It promotes integrated watershed management using its ridge-to-valley approach, which combines soil and water conservation, afforestation, and sustainable farming practices. It encourages villagers to adopt eco-friendly principles and participate in activities like building check dams, planting indigenous trees, and improving sanitation and health.

Over the years, Vanrai has transformed hundreds of villages across Maharashtra, Gujarat, Goa, Dadra, Nagar, Haveli, and Karnataka by reviving water resources, planting millions of trees, and creating sustainable livelihoods. Its efforts have reduced migration, improved agricultural productivity, and empowered rural communities to manage their natural resources responsibly. Acting as planners, facilitators, and implementers of developmental plans, Vanrai promotes an integrated and sustainable rural development strategy.

2.6. Project Geography



Satara District is located in the western part of Maharashtra. It is bounded by Pune (North), Raigad (North-West), Ratnagiri (West), Sangli (South), and Solapur (East).

The district lies partly in the Western Ghats (Sahyadri range) and partly on the Deccan Plateau, resulting in hilly western regions and flat to undulating eastern plains.

Western Satara is mountainous with steep slopes and plateaus, while the eastern region consists of gently sloping plains and

drought-prone areas such as Man and Khatav talukas. Satara is mainly drained by the Krishna River basin and partly by the Bhima River basin. Major rivers include Krishna, Koyna, Venna, Urmodi, Tarali, Nira, and Manganga.

The climate varies from very high rainfall (>6000 mm) in Mahabaleshwar (Western Ghats) to low rainfall (~500–600 mm) in eastern talukas. Rainfall decreases from west to east due to the rain-shadow effect.

The district mainly has black cotton soil, light murum soil, and laterite soil. Black soils dominate river valleys, while laterite soils occur in western hilly regions. Due to varied soils and climate, crops such as sugarcane, paddy, jowar, bajra, wheat, pulses, and horticultural crops (strawberry, fruits) are widely grown. Satara district covers a total geographical area of approximately 10,480 sq. km, making it one of the larger districts in Maharashtra.

Khandala Block is situated in the northern part of Satara district, Maharashtra, approximately 55 km south of Pune. Administratively, it is one of the eleven talukas of Satara district, with Khandala town as its headquarters. The block shares boundaries with Purandar taluka (Pune district) to the north, Phaltan and Baramati talukas to the east, Wai and Bhore talukas to the west, and Wai and Koregaon talukas to the south. Due to its proximity to Pune and location along the Pune–Bangalore National Highway (NH-48), Khandala occupies a strategically important position in the district.

Khandala Taluka forms part of the transitional zone between the Western Ghats and the Deccan Plateau. The terrain is mostly undulating to gently sloping, with the Mahadev hill ranges covering parts of the southern boundary. The Nira River flows along the northern side of the block and is a major source of irrigation. Important water structures such as the Veer Dam and Bhatghar Dam support agriculture and industrial water demand in the region.

The climate is semi-arid to sub-humid, with moderate rainfall compared to the western talukas of Satara. Soil types are predominantly medium to deep black cotton soils in irrigated areas and lighter soils in upland regions, making the block suitable for both agriculture and industrial development.

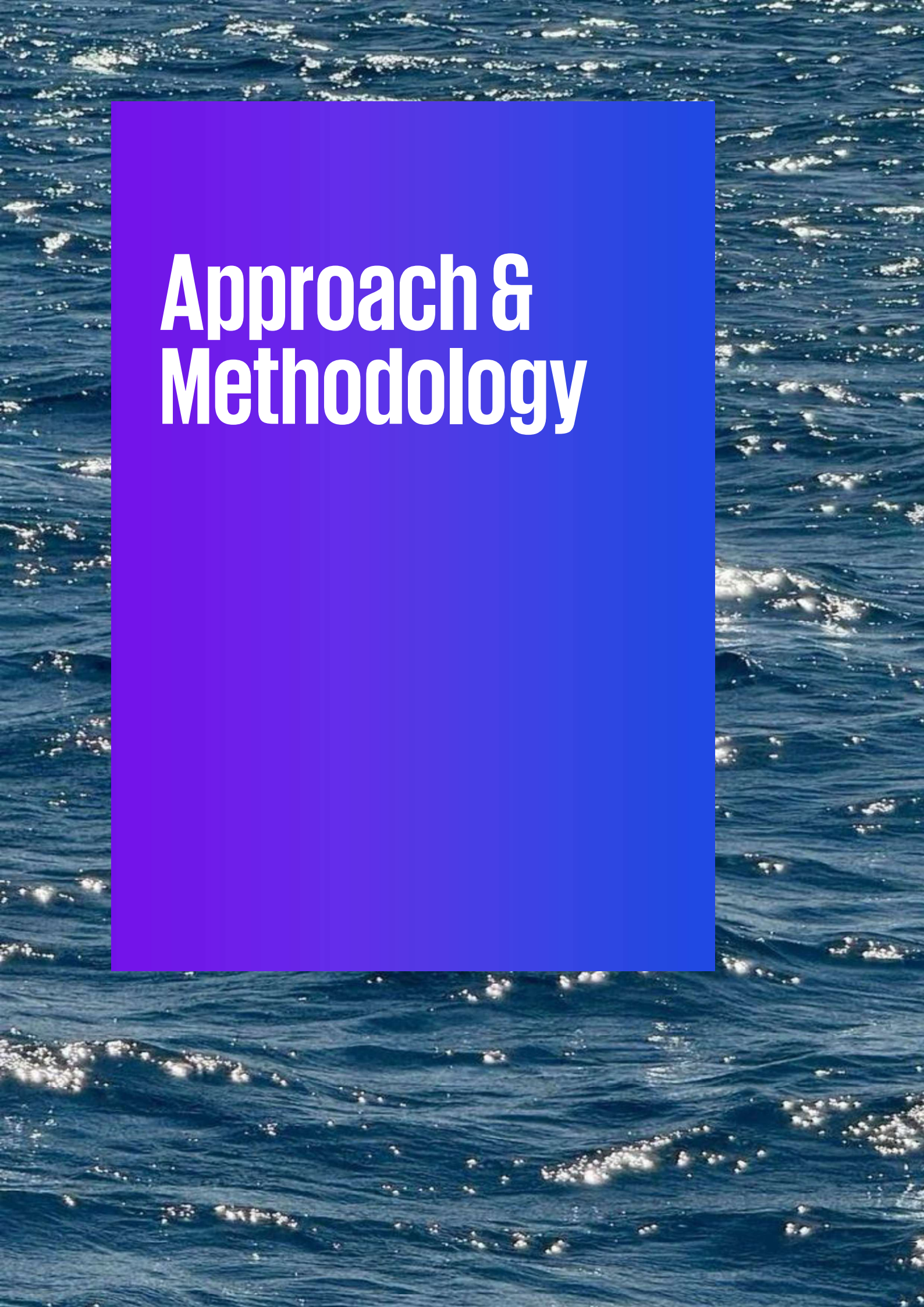
Although Khandala receives canal water from the Nira River system, water availability is highly seasonal. During good monsoon years, irrigation and drinking water supply improves, but summer months (March–May) regularly witness shortages in several villages and settlements due to declining reservoir levels and reduced canal rotations.

Groundwater exploitation has increased significantly. Khandala is underlain by hard basaltic formations, where groundwater recharge is slow and storage is limited. Excessive borewell extraction has led to declining water tables during summer.

Khandala Block is recognized as one of the most industrially developed talukas in Satara district. The key driver of industrial growth is the presence of MIDC-developed industrial areas, notably:

- Khandala MIDC Phase I & Phase II
- Lonand MIDC
- Kesurdi SEZ (MIDC)
- Shirwal Industrial Zone

These industrial estates benefit from excellent road connectivity via NH-48, proximity to Pune metropolitan region, and access to rail freight facilities at Lonand, making Khandala a preferred location for manufacturing and logistics units.



Approach & Methodology

3. APPROACH AND METHODOLOGY

The chapter provides details on the research design and methodology adopted for the impact assessment. It includes description of the key activities, data collection methods, and sampling strategies, employed to ensure the reliability and validity of the findings.

3.1. Our Approach

The study applied the OECD DAC and SROI frameworks to design the evaluation and measure the social returns and impacts generated by APL's CSR projects on water stewardship. The OECD DAC framework is a globally recognized approach for assessing the effectiveness of social development programs, while the SROI methodology goes beyond traditional economic metrics to capture broader social and environmental value.

A structured four-phase methodology was adopted to ensure a comprehensive evaluation. This approach integrated the principles of both OECD DAC and SROI throughout the process, enabling a robust assessment of outcomes and the overall impact of the program.

Phase I: Consulting and Scoping	Phase II: Research Design	Phase III: Data Collection	Phase IV: Analysis and Reporting
Kick-off meeting	Development of Impact Map	Development of field visit plan	Analysis of collected data using OECD DAC framework and estimating the SROI of the projects
Desk review of documents and reports related to the program	Mapping the stakeholders	Field visits and stakeholder interactions	Development of draft and final report
Determining the scope of the study	Designing sampling strategy and data collection tools		Presentation to APL Team

3.2. OECD-DAC

The Organization for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) introduced its evaluation criteria in 1991 as a structured framework for assessing development programs, whether ongoing or completed. This approach enables a systematic review of multiple dimensions of a program, offering both qualitative insights and quantitative measures of impact. The framework is widely recognized for its ability to evaluate effectiveness and relevance in social development initiatives. It is built around the following six key criteria, which form the basis for comprehensive program assessment under the OECD-DAC guidelines:



These evaluation criteria have been defined below along with illustrative questions:

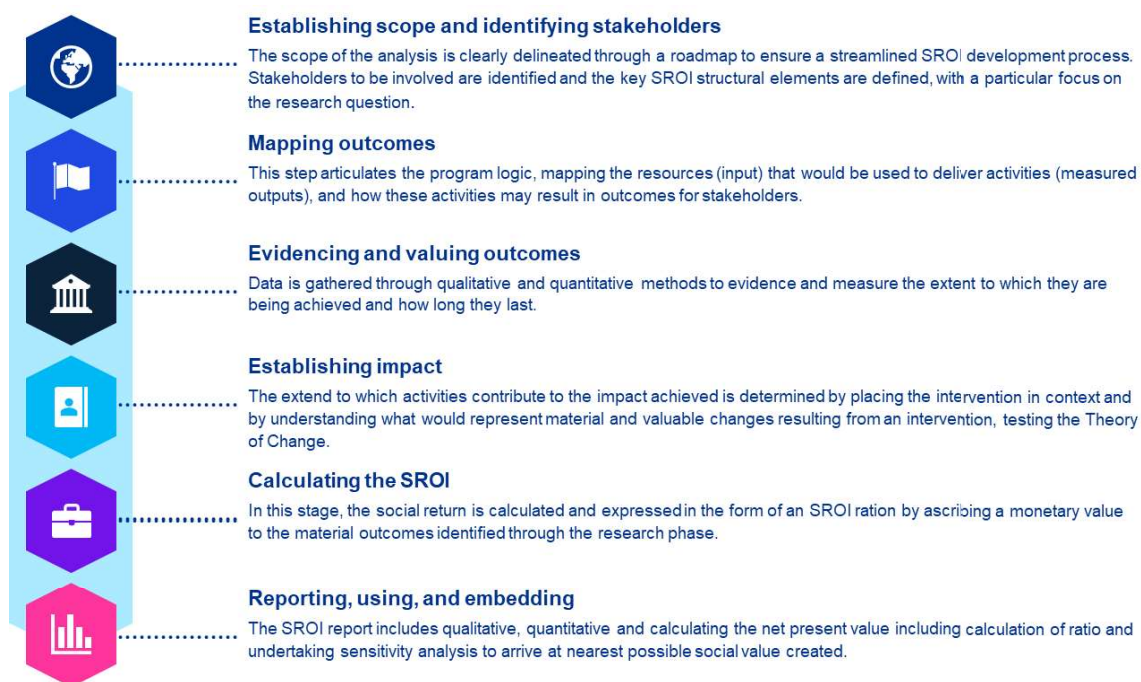
Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
Relevance	A measure of the extent to which the intervention objectives and design respond to beneficiaries, global, country, and partner/institution needs, policies, and priorities, and continue to do so if circumstances change. ▪ To what extent are the objectives of the project still valid? ▪ Are the activities and outputs of the project consistent with the overall goal? ▪ Are the activities and outputs of the project consistent with the intended impacts and effects?	<i>Commitments of the stakeholders are integrated into Project design and planning</i>
Effectiveness	A measure of the extent to which the intervention achieved, or is expected to achieve, its objectives, and its results, including any differential results across groups. ▪ To what extent were the objectives achieved / are likely to be achieved? ▪ What were the major factors influencing the achievement or non-achievement of the objectives?	<i>Achieved cross-cutting objectives during project implementation</i>
Efficiency	A measure of the extent to which the intervention delivers, or is likely to deliver, results in an economic and timely way. ▪ Were activities cost-efficient? ▪ Were objectives achieved on time? ▪ Was the project implemented in the most efficient way compared to alternatives?	<i>Resources are provided and efficiently used for participation of all stakeholders</i>

Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
Impact	A measure of the extent to which the intervention has generated or is expected to generate significant positive or negative, intended, or unintended, higher-level effects. - What has happened as a result of the project? - What real difference has the activity made to the beneficiaries? How many people have been affected?	<i>Achieved real and long-lasting positive changes in the lives of intended beneficiaries</i>
Sustainability	A measure of the extent to which the net benefits of the intervention continue or are likely to continue. - To what extent did the benefits of a project continue after donor funding ceased? - What were the major factors which influenced the achievement or non-achievement of sustainability of the project? - What can be some of the innovative ways to make the project sustainable in the long run?	<i>Likelihood that project achievements will continue after project</i>
Coherence	A measure of the extent to which the intervention is compatible with other interventions in a country, sector, or institution. - Does the project address the synergies and interlinkages between the intervention and other interventions in the same organisation and in the same sector/policy landscape? Does it weaken or enhance the impact of any current programs or policies? - Does the program lead to duplication of efforts?	<i>The extent to which other interventions (particularly policies) support or undermine the intervention and vice versa.</i>

3.3. Social Return on Investment (SROI)

Social Return on Investment (SROI) is a structured approach designed to capture and measure the broader value created by an investment. It covers the social, environmental, and economic benefits that traditional cost-benefit analyses often overlook. This methodology assigns monetary values to social and environmental outcomes, enabling organisations to calculate how much value is generated for every rupee spent on a program. Unlike conventional assessments, SROI focuses on changes that matter most to stakeholders, providing a clear picture of the social impact of projects and policies.

By using SROI, organisations can demonstrate the social value their initiatives deliver, gain deeper insights into stakeholder impact, and integrate these findings into strategic decision-making. It is fundamentally about value rather than just financial returns and can be applied to an entire organisation or a specific program. The approach uses a theory of change or impact map to outline how interventions lead to measurable outcomes, expressed in monetary terms, allowing for a benefit-to-cost ratio calculation. SROI combines qualitative, quantitative, and financial data, along with case studies, to inform future planning. Its key advantage lies in going beyond identifying outcomes to valuing them and calculating their social worth. Steps of a SROI are as follows:



Setting the Scope 	Identification of stakeholders including beneficiary group, finalising the scope- setting the boundary of what is going to be considered for evaluative SROI - stakeholders including beneficiaries, impacts, program period, etc.
Mapping Outcomes 	Creating impact map, identifying investments, and valuing inputs, identifying outcome sand indicators for monitoring / evidencing outcomes
Evidencing Outcomes 	Collecting and analysing outcome data and establishing how long the outcome will last
Establishing Impacts 	Identifying and valuing financial proxies, adjusting outcomes using deadweight, displacement, attribution and drop off, calculating the impact
Calculating SROI 	Programming the value of outcome into future based on the duration for which the impact will last, calculating the net present value including calculation of ratio and undertaking sensitivity analysis.

The process of calculation of SROI largely focuses on deadweight, displacement, attribution, and drop-off in association with any outcomes achieved. All these aspects are generally expressed as percentages and these percentages are applied to the financial proxy of each outcome to arrive at the total impact for the outcome. Therefore, we used a customised framework involving a combination of OECD-DAC and SROI to obtain a full picture of the impact created by APL.

3.4. Detailed Methodology

The following section discusses the methodology being employed by KPMG in this impact assessment, which has been broken down into four phases.

PHASE I: CONSULTING AND SCOPING

Activity 1: Inception Meeting

The initial step involved a scoping and kick-off meeting between the KPMG team and APL to finalize the work plan. The key tasks, timelines, and approach for the engagement were discussed. A detailed project plan was prepared by KPMG to guide the execution.

Activity 2: Desk Review and Stakeholder Engagement

The team conducted a thorough review of documents provided by APL, including concept notes, annual reports, and progress or closure reports. Secondary research was also conducted to gain an in-depth understanding of the project locations and interventions. Additionally, discussions with APL and implementing partners helped clarify KPIs, map external stakeholders, and define the sampling strategy and size.

PHASE II: RESEARCH DESIGN

Activity 1: Developing the Impact Map / Theory of Change

An impact map based on the theory of change was created to define the project's outcome and impact parameters. This map serves as a logical framework that illustrates how inputs (actions or activities undertaken) lead to outputs (immediate changes resulting from interventions), which then drive outcomes (short- or medium-term effects linked to those outputs) and ultimately generate impact (positive or negative, intended or unintended, direct or indirect) arising from the interventions.

Refer next page for the impact map

Activity 2: Stakeholder Mapping and Sampling strategy

Stakeholder mapping is the process of identifying all the stakeholders involved in a project and their roles and responsibilities on one map. The main benefit of a stakeholder map is to get a visual representation of all the people who can influence the project and how they are connected. Stakeholders who experience change, whether positive or negative because of the interventions carried out were considered for the study. Furthermore, their pertinence to the scope of the study and relevance to the overall analysis were assessed.



Sampling of stakeholders for engagement was done based on the materiality of the stakeholder and the extent of the impact on the stakeholder. Considering the overall outreach of the project as nearly 156 beneficiaries, the statistically significant sampling has been derived. Additionally, we have taken extra sample stakeholder to derive accurate social return on investment ratio. The stakeholder-wise mode of interaction has been detailed out below:

Stakeholder type	Universe	Sample	Actual coverage
Farmers			
Benefitted due to water intervention	156	100	100

Impact Map

Stakeholder	Project Objectives	Inputs	Output	Outcome	Evidence Indicator
Farmers, Community members FPO/VI/WUA	To promote basic supplementary irrigation facilities by creating and strengthening water harvesting structures and increase water storage and availability; To improve and stabilize surface soil to convert unirrigated land to irrigated land. To organize and strengthen the village institutions around water harvesting and related livelihoods	Construction and refurbishment of check dams, ponds and other WHS, Capacity building, Access to Finance, Time	Number of families reached out / availed benefits of check dams and other water harvesting structures	Increase in agricultural production	Changes in availability of cultivated land Changes in cropping pattern by farmers Changes in multi-seasonal cropping
				Access to secure livelihood	Changes in the input cost required for agriculture
				Creation of sustainable water supply	Changes in the irrigation fed agriculture, changes in the availability of water, reduced dependency on the other sources of water
				Creation of employment opportunities	Changes in the labour employment by the local population
			No. of families benefited from Group wells & Borewell	Access to potable water	Reduction in water borne diseases (Improvement in health), reduction of drudgery (time saved)
				Access to secure livelihood	Changes in the input cost required for agriculture, adoption of improved agriculture practices
			No. of village institutions benefited	Establishing community stewardship over the common water resources	Community led governance of its resources, effective operations, and maintenance of water structures
			Increase in water storage capacity	Improved biodiversity in the catchment area	Increase in biomass in command area, Improved bio-diversity – presence of bird and animal species, Improved soil health, Reduced soil pollution.

Stakeholder	Reason for Inclusion	Data collection tool
Farmers who have been benefitted due to water harvesting related interventions	Since the farmers are the direct beneficiaries of this study hence it is important to include them to understand if the objectives of this program have been met.	Structured Questionnaire: were developed In-depth Interview: were also undertaken
Farmers who have been benefitted due to agriculture related interventions	Agriculture is a key intervention, Hence, it is critical to get their perspective of the beneficiaries	Structured Questionnaire: were developed In-depth Interview: were also undertaken
Community members benefitted due to potable drinking water	The community members from the intervention area have been a key stakeholder and receiver of the impact hence, it is important to get their perspective.	Semi-structured Questionnaire: were developed
WUA members	In order to understand the governance mechanism established over the water usage, these stakeholders are important	Structured Questionnaire: were developed In-depth Interview: were also undertaken
PRI Members and government officials	In order to understand broad perspective of the community members through elected members	Structured Questionnaire: were developed In-depth Interview: were also undertaken
Stakeholders excluded from the study		
Community members from periphery of intervention villages	Excluded - It was understood from the implementing team that due to no direct intervention, these stakeholders will remain outside the scope of the intervention	Not applicable

The study includes three categories of beneficiaries: primary, secondary, and tertiary. Farmers, as the direct and intended recipients of project interventions, constitute the primary beneficiaries. Their family members and other community stakeholders constitute the secondary beneficiaries. Additionally, interactions were conducted with institutional stakeholders such as Panchayati Raj Institution (PRI) representatives and government officials, who constitute the tertiary stakeholders.

Activity 3: Development of Data Collection Tools

The study adopted a mixed-methods approach, combining quantitative and qualitative techniques for data collection and analysis. Initially, a comprehensive desk review was conducted to assess existing knowledge and identify gaps for further investigation. Following the literature review and research design, survey instruments were created based on the impact map to gather both quantitative and qualitative data from a sample population using offline methods. These tools captured participants' experiences, attitudes, and behaviors. Additionally, semi-structured interviews were designed for key stakeholders, including experts, PRI members, government officials, community leaders, and practitioners, to gain deeper insights into the research topic and emerging best practices. All tools were aligned with program objectives and the scope outlined in the RFP, with additional questions incorporated to enrich the case study. The tools developed include:

- Tools for individual interactions
- Tools for focus group discussions
- Tools for other key stakeholder interactions
- Development of a research and data collection plan

PHASE III: DATA COLLECTION

Activity 1: Development of Field-Visit Plan

Stakeholder interactions were planned in coordination with APL and the project implementing partner. A detailed timeline was prepared for the field visits, with the implementing partner providing support for scheduling meetings, mobilizing stakeholders, and arranging translators where necessary. The team also consulted with the partner to anticipate potential challenges such as language barriers, cultural sensitivities, or safety concerns. These measures ensured that the data collection process was efficient and conducted in an ethical manner.

Activity 2: Conducting Field Visits

Stakeholder consultations were carried out through individual interviews, focus group discussions (FGDs), and key informant interviews (KII). To ensure effective communication, KPMG included facilitators with prior experience and proficiency in local language. The data collection team underwent training and sensitization sessions to engage stakeholders appropriately. Before the main exercise, tools were pre-tested. Throughout the process, data collection was closely monitored for completeness, accuracy and consistency, including backchecks and triangulation.

PHASE IV: ANALYSIS AND REPORTING

Activity 1: Data analysis and preliminary findings

During the data analysis, both qualitative and quantitative analysis were conducted on the data collected. To enhance accuracy and reliability, the findings from the quantitative data collected on the ground were triangulated to an extent. The collected information was thoroughly analysed on a location disaggregated basis, allowing for a detailed understanding of the specific areas involved. To calculate the social returns and impacts resulting from the program, the SROI framework and OECD-DAC framework were utilized. Additionally, a sensitivity analysis was conducted to examine the results of the ROI. The data and observations obtained during the primary data collection phase and document review

were carefully analysed to inform report writing. The findings were further scrutinised basis the assurance standards for SROI assessments.

Activity 2: Development of Report and Presentation

A comprehensive report was prepared for Asian Paints Limited at the enterprise level, capturing key observations, analyses, findings, and recommendations from the assessment. The report adhered to OECD-DAC and SROI framework guidelines to ensure accuracy and relevance. A draft version was shared with APL for review and feedback prior to finalisation. The finalised report was then presented to APL's leadership. Additionally, separate project-level reports were developed, providing detailed data and analysis. All collected data and corresponding analyses were also shared with APL.

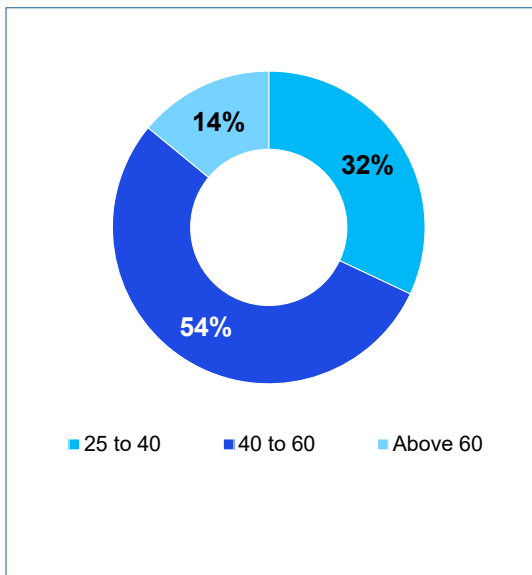


Analysis and Finding

4. ANALYSIS AND FINDING

4.1. Demographic profile

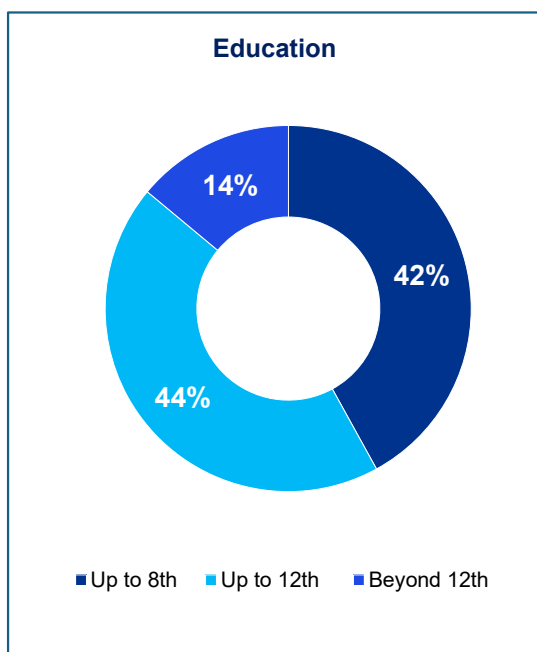
Age group



The age distribution of respondents shows that individuals between 40 and 60 years form the largest share of the sample at 54%. This indicates that the findings largely reflect the views of individuals who are typically active in household management, livelihood activities, and community decision-making processes. Respondents in the 25 to 40 years category constitute 32%, contributing perspectives from younger adults who are often engaged in employment, agriculture, or daily operations related to water use. The above 60 years group represents 14% of the respondents, suggesting comparatively lower participation from senior community members. Overall, the age composition reflects a sample dominated by working-age adults, which may influence the nature of responses related to water usage, access, and the perceived outcomes of water body rejuvenation

activities. This distribution also highlights the importance of ensuring that programme communication and engagement strategies remain inclusive to capture the experiences and insights of all age groups.

Education:



The educational profile of the respondents indicates a diverse range of schooling levels. A total of 16% of respondents reported having no formal education, while 12% had studied up to the 5th standard. Respondents educated up to the 8th and 12th standards each accounted for 14%, reflecting moderate representation from individuals with lower and higher secondary schooling. The largest proportion, 30%, had completed education up to the 10th standard, suggesting that a significant share of respondents possess basic formal education that may support their understanding of community initiatives and resource management processes. Additionally, 14% of respondents had education beyond the 12th standard, indicating the presence of individuals with higher academic exposure. Overall, the education distribution suggests that the sample comprises respondents with varying levels of literacy and learning, which may influence their awareness, perceptions, and

engagement in activities related to water body rejuvenation.

Income:

Primary source of income

Primary source of income	Percent of Primary source of income
Agriculture	88%
Small business	6%
Job	4%
Labourer	2%

The primary source of income among respondents is predominantly agriculture, with 88% of households relying on farming as their main livelihood activity. This indicates that the community's economic well-being is closely linked to agricultural productivity and the availability of water resources. A smaller proportion, 6%, depend on small businesses, reflecting limited diversification into non-agricultural enterprises. Additionally, 4% of respondents reported salaried employment, while 2% earn their livelihood through labour-based work. Overall, the income profile demonstrates a largely agriculture-dependent population, underscoring the significance of water body rejuvenation interventions for sustaining livelihoods, improving resource availability, and supporting economic stability in the region.

Secondary source of income

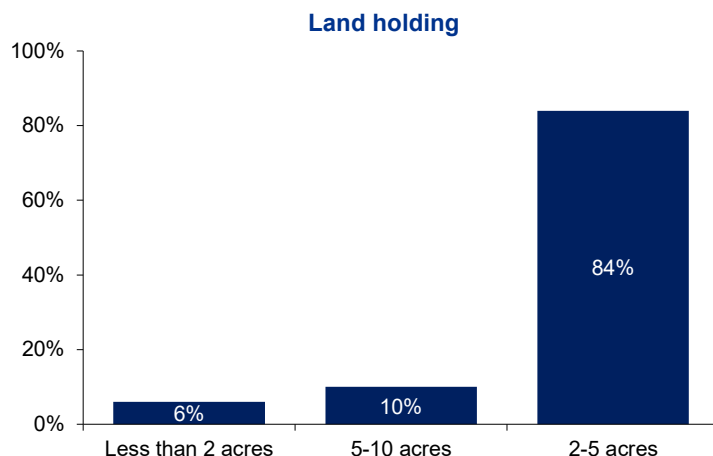
The secondary sources of income reflect a mix of farm-linked and non-farm activities. Livestock rearing accounts for **43%** of secondary income, indicating a meaningful role for animal husbandry alongside primary livelihoods. Small business contributes 20%, while salaried employment constitutes 18% and wage labour accounts for 16%, suggesting the presence of local non-farm opportunities that complement agriculture. Migration is reported by 2%, indicating limited reliance on seasonal or temporary out-migration for supplementary earnings. Overall, the distribution points to livelihood diversification with a significant share linked to water-dependent activities such as livestock. In this context, water body rejuvenation has the potential to support fodder availability, animal health, and related enterprises, thereby contributing to the stability of secondary incomes.

Household income

The household income distribution indicates that a majority of respondents fall within the ₹1,00,000 to ₹2,00,000 range, with 32% reporting income between ₹1,00,000 and ₹1,50,000 and 34% between ₹1,50,000 and ₹2,00,000. Additionally, 18% of households report income of ₹2,00,000 and above, while 16% fall in the ₹50,000 to ₹1,00,000 band. This profile suggests a concentration in lower-to-middle income segments, which may shape affordability considerations and the capacity for contributions to operation and maintenance of water infrastructure. In an agriculture-reliant context, these income levels are likely sensitive to seasonal water availability, implying that improvements from water body rejuvenation could have a direct bearing on income stability through effects on cropping patterns, input costs, and supplementary activities such as livestock.

Land holding pattern

The distribution of cultivable landholding indicates that 78% of respondents possess 2–5 acres, reflecting a predominance of **small to medium holdings**. A further 12% report less than 2 acres, and 10% have 5–10 acres. This profile suggests that most households operate within land sizes where irrigation reliability and efficient water use are critical to productivity. In the context of water body



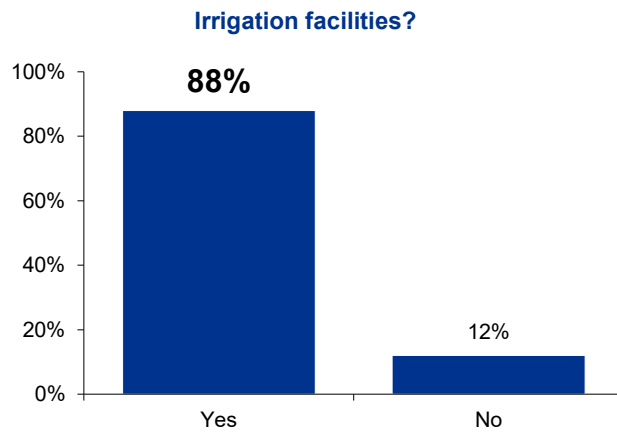
rejuvenation, interventions that enhance water storage, improve conveyance, and promote micro-irrigation practices are likely to be relevant for the majority. The presence of very small holdings underscores the need for equitable access mechanisms such as communal water distribution and scheduling so that benefits are accessible across different landholding categories.

Crop Profile

Kharif	Rabi	Summer
Paddy	Wheat	Groundnuts
Sugarcane	Chickpeas	Pulses
Pearl Millet	Onion	
	Groundnuts	

The crop profile reflects the seasonal agricultural practices commonly observed in Khandala block of Satara district, where agriculture is shaped by semi-scarcity conditions and dependence on monsoon-driven water availability. During the Kharif season, paddy and sugarcane are the major crops grown. This aligns with broader district-level trends where sugarcane, a high-input crop, has shown significant expansion due to improved irrigation infrastructure in Satara over recent decades. In the Rabi season, respondents primarily cultivate wheat and chickpeas, consistent with the shift toward cereal-pulse combinations observed in Satara's cropping systems. During the summer season, groundnuts and pulses are reported, reflecting a preference for crops that can be sustained with limited but assured irrigation. Khandala block, identified as a drought-affected region facing recurring scarcity of drinking and irrigation water, has been the focus of multiple water conservation initiatives aimed at stabilizing agricultural practices and increasing seasonal crop productivity. The overall cropping pattern underscores the linkage between water availability and agricultural decision-making in the area, highlighting the relevance of water body rejuvenation for supporting seasonal cultivation, reducing hydrological stress, and enhancing livelihood resilience.

Irrigation facility



A total of **84%** of respondents reported having irrigation facilities on their farms, while **16%** indicated that they do not have access to such infrastructure. The irrigation facilities referred to by respondents include access to wells, ponds, and electric pumps, which together form the primary means of supporting crop cultivation beyond rainfall dependence. In the context of Khandala block of Satara, an area characterised by recurring water scarcity, the availability of these facilities for a significant proportion of farmers reflects the role of local water conservation structures and

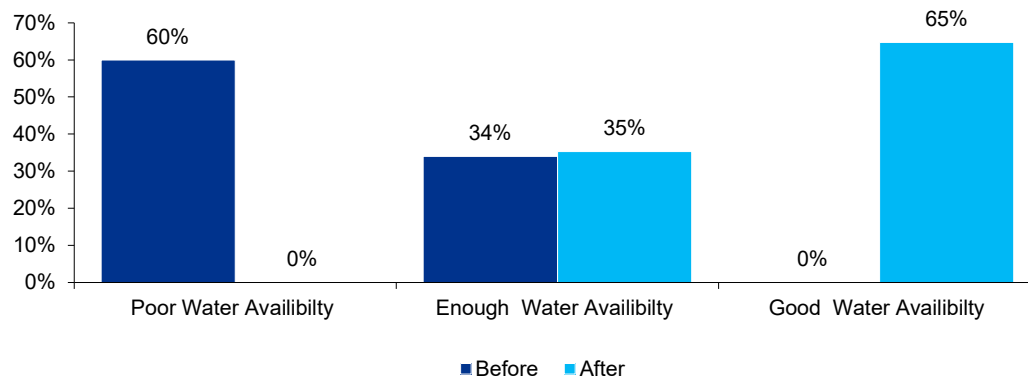
groundwater-access mechanisms in sustaining agricultural activity.

Impact Findings :

4.1.1. Impact on availability and accessibility of water

The rating of water availability shows a clear shift from lower to higher categories after the intervention. Before implementation, responses were concentrated at the lower end: 28% rated availability as 1, 32%

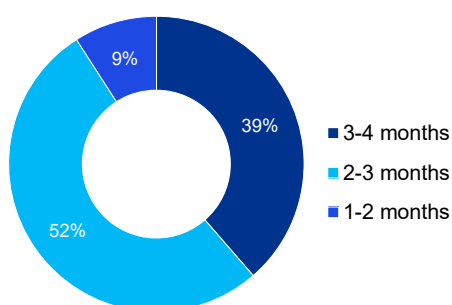
Perception comparison of Water Availability: Pre- and Post-Interventio



as 2, and 34% as 3, with 0% in categories 4 and 5. After implementation, there were no ratings in categories 1–2, 24% rated 3, 10% rated 4, and 67% rated 5. Overall, the share of low ratings (1–2) declined from 60% to 0%, while high ratings (4-5) increased from 0% to 77%, and the most frequent response shifted from 3 to 5. This distribution indicates an upward movement in perceived water availability across the respondent group.

4.2. Impact on duration of the water availability

Increase in water availability



Among respondents who reported an increase in water availability due to the rejuvenation of water bodies, 52% indicated an additional 2–3 months, 36% reported 3–4 months, and 11% reported 1–2 months of availability. The distribution suggests that the most common extension is 2–3 months, with a considerable share experiencing up to 3–4 months, and a smaller proportion limited to 1–2 months. Overall, 88% of respondents reported at least two months of additional water availability. This extended duration may support timely irrigation during the Rabi season, enable

88%

of the respondents shared that observed increase in water level in the well or borewell

91%

Of the respondents shared that they have observed increase in water level in wells or borewell for minimum for two months

short-duration summer crops in some cases, and provide greater flexibility in scheduling sowing and input application.

The comparison of well/borewell water depths before and after the intervention indicates an overall improvement in water availability across seasons. During the summer season, the average water depth improved from 30 feet pre-intervention to 22 feet post-intervention, reflecting a notable reduction in drawdown and indicating better retention of water in the wells. In the winter season, the depth improved from 20 feet to 15 feet, suggesting enhanced recharge and slower depletion of groundwater during the post-monsoon period. For the monsoon season, water depth remained stable at 5 feet in both periods, which is expected, as monsoon recharge typically brings wells to shallower water levels. Taken together, the data show a positive shift toward improved groundwater conditions in summer and winter, indicating that the intervention contributed to increased water availability and enhanced recharge capacity of wells across seasons.

Season		Depth Foot	% Change
Summer	Pre intervention	30	25%
	Post intervention	22	
Monsoon	Pre intervention	5	0%
	Post intervention	5	
Winter	Pre intervention	20	25%
	Post intervention	15	

4.3. Impact on the surface water



During the Focus Group Discussion (FGD), it was observed that in locations where excavation works were undertaken, surface water availability has improved and is sustained for a longer duration. As reported by a PRI member, surface water in these areas is now available until the months of March–April, whereas earlier it was available only up to December. Although this surface water is not directly used by households for domestic purposes, it is utilized by some villagers for livestock maintenance.

10% of the respondents shared that they are taking water directly from the surface water or water from water harvesting structures using electric water pumps.

It was noted during FGD those who are extracting water from water harvesting structures are extracting water as per their agricultural need; there is no fixed pattern of extracting water from these structures.

“Earlier, the pond would dry by the end of February, but after desilting, water remains available until May. This has provided considerable relief to all villagers. We have also observed a direct improvement in the water levels of our wells. Additionally, the silt excavated from the pond has helped several farmers convert previously non-cultivable land into cultivable land” – PRI Member (Salpe)

4.4. Impact on agricultural productivity

Impact on Sown area and irrigated area

The respondents reported an average total landholding of 4.1 acres, with the average net sown area increasing from 2.83 acres before the intervention to 3.1 acres after the intervention. This expansion in net sown area suggests that enhanced water availability enabled farmers to bring additional portions of their land under cultivation. The improvement in water access likely reduced the area previously left fallow due to moisture constraints and encouraged more consistent utilization of agricultural land. Overall, the data reflect a positive shift in land use efficiency, indicating that better water security has supported farmers in cultivating a larger share of their holdings.

Average sown Area Pre-intervention	Average sown Area Post-intervention	Change	Average increase in in sown area
2.83	3.1	0.27	10%

Unit: Acre

Average irrigated Area Pre-intervention	Average irrigated Area Post-intervention	Change	Average Increase in in sown area
2.83	3.8	1.10	41%

Unit: Acre

The average irrigated area shows a notable expansion following the intervention. The data indicate that the average irrigated area increased from 2.7 acres before the intervention to 3.8 acres after the intervention. This change suggests that improved water availability enabled farmers to bring additional land under assured irrigation. The increase in irrigated area reflects more reliable access to water sources, allowing households to extend irrigation to portions of land that previously remained dependent on rainfall or were left uncultivated due to insufficient water. Overall, the observed increase in irrigated acreage indicates a positive shift in agricultural capacity, supporting more consistent crop cultivation and enhancing the productive use of available land.

4.5. Impact on crop productivity

Crop	Pre-Intervention - Average yield per acre	Post Intervention - Average yield / acre	Change	%
Chickpeas	5	6	2	33%
Groundnuts	7	9	2	29%
Paddy	12	13	1	8%
Pulses	4	8	4	88%
Sugarcane	60	68	8	13%
Wheat	8	9	2	22%

Responses indicate an increase in average yield per acre across all reported crops in the post-intervention period. Pulses show the highest relative improvement with an 88% increase (from 4 to 7 qtl/acre), while chickpeas and groundnuts register notable gains of 33% (5 to 6 qtl/acre) and 29% (7 to 9 qtl/acre), respectively. Wheat reflects a 22% rise (8 to 9 qtl/acre), and sugarcane shows a 13% increase (60 to 68 qtl/acre). Paddy records a smaller relative change of 8% (12 to 13 qtl/acre). Overall, the pattern suggests broad-based yield improvements, with relatively stronger percentage gains in pulses and oilseeds and incremental gains in cereals and sugarcane, consistent with enhanced moisture availability and more reliable irrigation conditions.



4.6. Impact on income from agriculture

Income pre intervention	Income post intervention	Change	Increase
1,16,820	1,68,580	51,760.	44% 

The income assessment indicates a positive change following the intervention. The average household income increased from ₹116,820 in the pre-intervention period to ₹168,580 in the post-intervention period, reflecting an increase of ₹51,760, or 44%. This improvement suggests that enhanced water availability and the longer duration of water retention contributed to more stable agricultural production and higher yield outputs across seasons. With water remaining available for extended periods, farmers were able to cultivate a larger proportion of their land, undertake additional cropping cycles in some cases, and reduce the risks associated with seasonal water shortages. The increase in income therefore aligns with the observed improvements in water levels and irrigation reliability, indicating a direct economic benefit for households dependent on agriculture and related activities.

4.7. Impact on animal husbandry

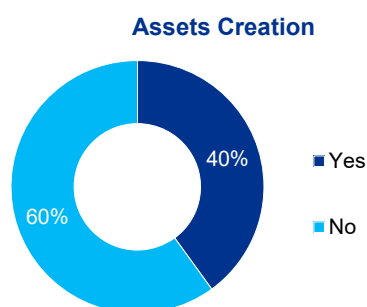
10% percent of the respondents reported that they own livestock. Among these respondents, all indicated that increased water levels have had a positive impact on their livestock. They noted that the availability of surface water has helped improve livestock hygiene. They have reported increased income due to increased water availability.

Average income from livestock monthly, Pre-intervention	Average income from livestock monthly, Post-intervention	Change	% Increase
4,400	5200	800	18%

Unit INR

Impact on assets creation

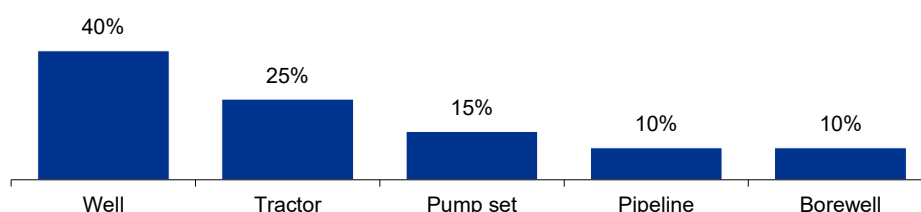
The data indicate that 40% of respondents created new agricultural assets after the intervention, while 72% reported not undertaking any asset creation during the period. Among those who invested in new assets, the most common additions were wells (40%), followed by tractors (25%), pump sets (15%), pipelines (10%), and borewells (10%). These investments reflect a shift toward strengthening on-farm infrastructure and enhancing operational capacity.



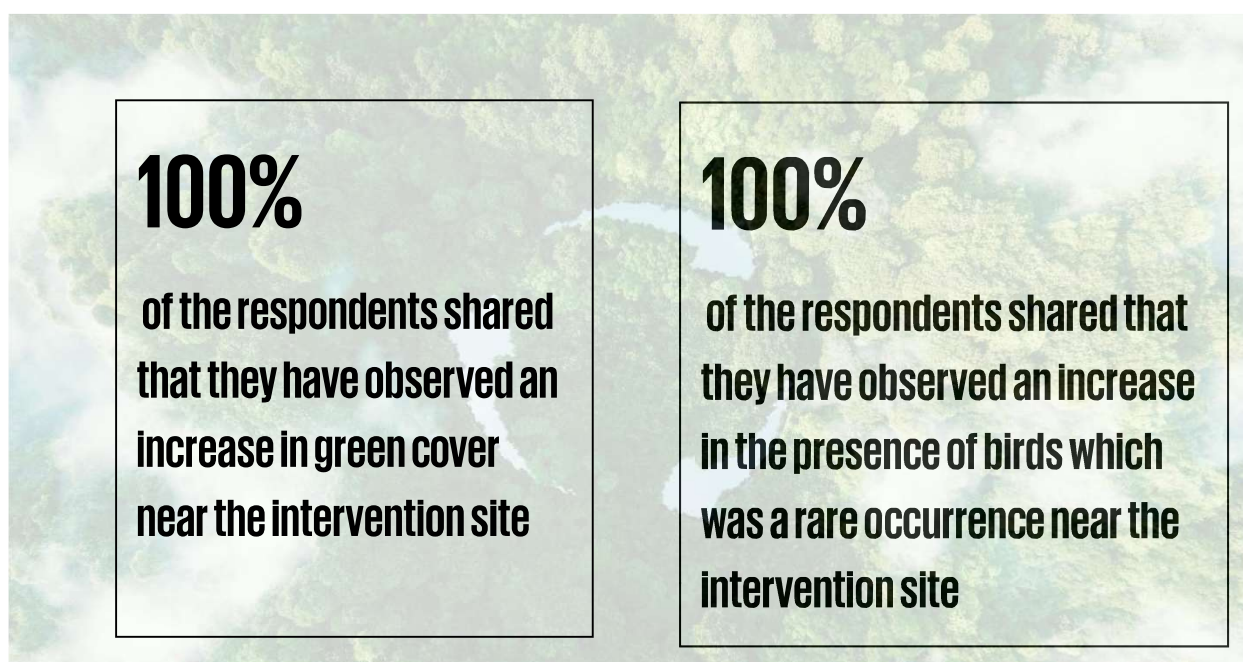
Respondents attributed this asset creation to improvements in water availability and longer periods of water retention, which collectively contributed to greater crop stability and more reliable farm income. Many farmers noted reduced drudgery due to mechanisation and improved water access, particularly where pump sets and pipelines were installed. Improved water security also led to better cash flow, as farmers could plan cropping activities with more confidence, reduce crop losses linked to water scarcity, and diversify into additional or higher-value crops.

Several respondents expressed their intention to invest in further assets in upcoming seasons, encouraged by the successful cropping outcomes following the intervention. However, many also highlighted concerns regarding the uncertainty of market prices for agricultural produce, which influences their ability to make larger capital investments. Despite these concerns, the overall trend indicates that improved water availability has strengthened the agricultural base, supported asset creation, and contributed to enhanced livelihood stability.

Assets created attributed water increase in the village



4.8. Impact on the environment



During the interaction with PRI members, it was noted that green cover has increased over the last year around the intervention site, mainly due to an increase in the water level of surface water. This has positively resulted in increased frequency of bird visits along the pond site, previously we rarely used to have so many birds at one place.

During interactions with Panchayati Raj Institution (PRI) members, it was observed that the green cover around the intervention site has increased notably over the past year. This improvement is primarily attributed to the rise in surface water levels, which has enhanced soil moisture and supported better vegetation growth in and around the watershed area.

PRI members further noted that the improved water availability has had a positive ecological effect, particularly evident in the increased frequency and diversity of bird visits around the pond

4.9. Impact of silt application on soil health

The soil samples were collected to assess the usefulness of the silt in agriculture, for comparison soil sample near by farm field is collected where silt was not applied. Basis the soil tests results following inference were drawn.

Overall, the silt addition appears to have substantially increased available potassium (K) in the soil rising from an adequate ~296 kg/ha in the no-silt field to a very high ~941 kg/ha in the silt-applied field while pH remained essentially unchanged (7.4–7.5) and salinity (EC) was slightly lower where silt was applied (0.83 vs 1.00 dS/m). The organic carbon level shows a small drop with silt (0.39% vs 0.44%), suggesting the silt deposit likely diluted the native soil organic matter or that additional organic inputs have not yet accumulated post-application. Micronutrient levels (Zn, Fe, Mn, Cu) are virtually identical across both fields, indicating silt application did not materially shift these micronutrients in the tested layer. The available phosphorus (P) is medium (44.8 kg/ha) in the silt-applied field, but the corresponding P value is missing in the no-silt report, and conversely the available nitrogen (N) is reported only for the no-silt field (medium at 35.84 kg/ha), which limits a full N–P comparison between

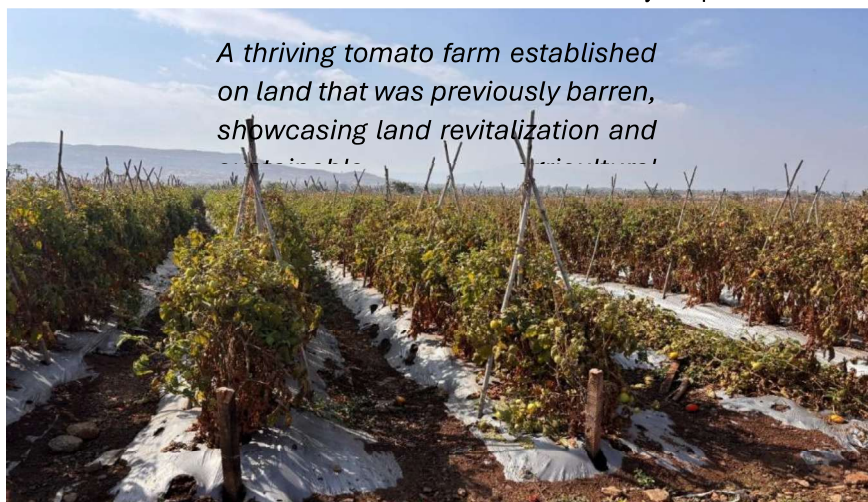
the two. In practical terms, the principal effect visible in these test results is a large enrichment of K after silt application, with soil reaction (pH) and micronutrients largely unchanged and slightly lower EC and OC where silt was added; any fertilizer fine-tuning should therefore prioritize this elevated K status while monitoring organic matter and ensuring balanced N–P management once complete values are available.

Parameter	Silt-applied	No-silt	Notes
pH	7.5	7.4	Both neutral–slightly alkaline; effectively similar.
EC (dS/m)	0.83	1.00	Slightly lower salts in silt-applied field.
Organic Carbon (%)	0.39 (low)	0.44 (medium)	OC marginally lower with silt.
Available N (kg/ha)	(not reported)	35.84 (medium)	N value missing in silt-applied report.
Available P (kg/ha)	44.8 (medium)	(not legible/absent)	P value missing in no-silt report.
Available K (kg/ha)	941 (very high)	296 (adequate)	Marked increase with silt.
Zn (ppm)	0.60	0.60	Same.
Fe (ppm)	4.50	4.50	Same.
Mn (ppm)	2.00	2.00	Same.
Cu (ppm)	0.20	0.20	Same.

4.10. Case Study

The respondent reported owning a parcel of land located near the Salpe village pond. Despite its proximity to the main road and ease of access, the land had remained barren for several years due to limited soil fertility and inadequate moisture retention. The family had not considered cultivating the plot, as the prevailing conditions did not support agricultural activity and the land was perceived as unproductive.

Following the desilting of the nearby pond, a significant improvement in the availability and quality of silt was observed. Recognising the potential benefits, the respondent took the initiative to apply the excavated silt to the barren land. The silt not only improved soil structure but also enhanced



moisture-holding capacity, creating favourable conditions for cultivation. Motivated by these improvements and guided by instructional videos on organic farming practices, the respondent decided to begin agricultural activities on the restored land.

Tomato cultivation was selected as the first crop, and the field preparation

and planting were carried out using organic methods. As of the reporting period, the tomato crop is described as healthy and well-established, indicating the successful transformation of previously uncultivable land into productive farmland. The respondent expressed optimism regarding the expected returns from this crop cycle, suggesting that the intervention has enabled a meaningful shift in livelihood opportunities.

This case illustrates how desilting activities can directly contribute to land productivity, encourage farmers to adopt improved practices, and restore confidence in the viability of previously unused land. It also highlights the combined effects of improved water availability, soil enhancement through silt application, and farmer initiative in achieving sustainable agricultural outcomes.

An aerial photograph of a vast ocean with numerous small, white-capped waves. The water is a deep blue, and the white foam of the waves is scattered across the surface, creating a textured appearance. The perspective is from directly above, looking down at the water.

MEASURING THE SOCIAL RETURN

5. MEASURING THE SOCIAL RETURN

As explained in Chapter 2, this report has used two evaluation frameworks which are OECD-DAC and SRoI. Generally, OECD-DAC helps in gaining a qualitative understanding of the impact. On the other hand, SRoI helps organizations in evaluating changes which are being created by measuring social, environmental, and economic outcomes and providing monetary values to represent them. SRoI also helps in understanding the total value generated for every rupee invested for interventions.

There are two types of SRoI:

- Evaluative, which is conducted retrospectively and based on actual outcomes that have already taken place.
- Forecast, which predicts how much social value will be created if the activities meet their intended outcome.

For this study, both evaluative as well as forecasting SRoI has been considered. SRoI primarily involves six stages which are as follows:

Stage 1: Establishing Scope and identifying key stakeholders

Stage 2: Mapping outcomes

Stage 3: Evidencing outcomes and giving them a value

Stage 4: Establishing impact

Stage 5: Calculating the SRoI

Stage 6: Reporting

Stage 1 and Stage 2 have been discussed in-depth in Chapter 2. Further stages have been elaborated in the ensuing sections.

1.1. Evidencing Outcomes

After creating the impact map, outcome indicators were developed based on interactions with beneficiaries and other key stakeholders such as PRI members and implementation teams. Evidence of these outcomes was gathered through both primary and secondary data sources.

Quantity of Change: The quantity of change for the impact map was calculated by extrapolating responses from the sample to the entire beneficiary population. Based on the data collected, a proportionate percentage of total beneficiaries was estimated to represent the overall impact.

The details about the evidence indicators for the outcomes and the quantity of change against each indicator are provided below:

Duration of Outcome:

Some outcomes are long-term, lasting throughout a beneficiary's life, while others persist only as long as the intervention continues. For this SRoI analysis, impacts from infrastructure-related activities are considered for up to 5 years, whereas intangible interventions such as training are assumed to have an impact for 3 years. These timelines are based on the following assumptions:

- Water resource development creates lasting effects on groundwater and surface water levels, with corresponding economic and social benefits
- Training-based interventions require periodic updates due to technological, market, and climate changes

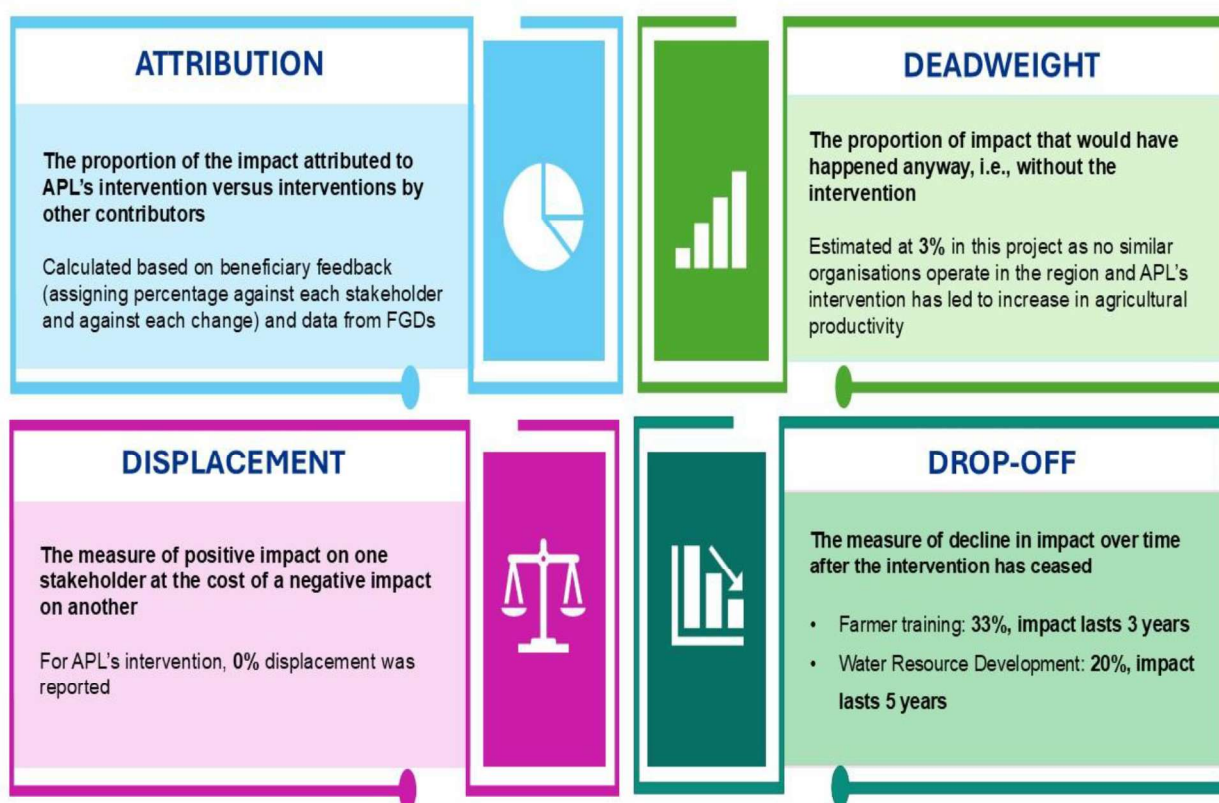
- Based on the nature of interventions and evolving income-generating activities, beneficiary and stakeholder contributions will eventually outweigh the impacts due to initial support from APL

Financial Proxy and Value of Financial Proxy:

To assign value to outcomes, financial proxies were used, following standard practice of using market prices where possible. For intangible outcomes without direct market value, the closest comparable proxy was identified. Refer to the table for outcome-wise details.

1.2. Establishing Impacts

An important part of SROI is 'measuring impact' by accounting for attribution, deadweight, displacement, and drop-off.



1.3. Calculating Impact

$$\text{Impact} = \text{Quantity of outcome} * \text{Financial Proxy Value} * (\text{Attribution} - \text{Deadweight} - \text{Displacement} - \text{Drop-off for each year})$$

SROI is a ratio of cumulative present value for each outcome against the total investment in the project i.e., **SROI = Total NPV of social value / Total investment**

Total Input Value: For SROI calculation, inputs from APL, beneficiaries, and other stakeholders were considered, assuming all contributions collectively created the observed impact. Without any one of these inputs, the current outcomes would not have been achieved. Inputs included financial contributions from APL, beneficiaries, and stakeholders, as well as the time invested by beneficiaries in training and exposure activities. Financial values were provided by APL, while non-financial inputs were estimated in consultation with the APL CSR team.

The below table represents the total cumulative investments from all the stakeholders towards the project from the time period 2023- 2024:

InputType	Inputdescription	Total Inputvalue(INR)
Financial inputs	CSR Funding from APL	1,40,07,136
Total		1,40,07,136

Net Present Value: The Impact Value is adjusted to reflect the Net Present Value (NPV) of the projected outcome values. This is to reflect the present-day value of benefits projected into the future.

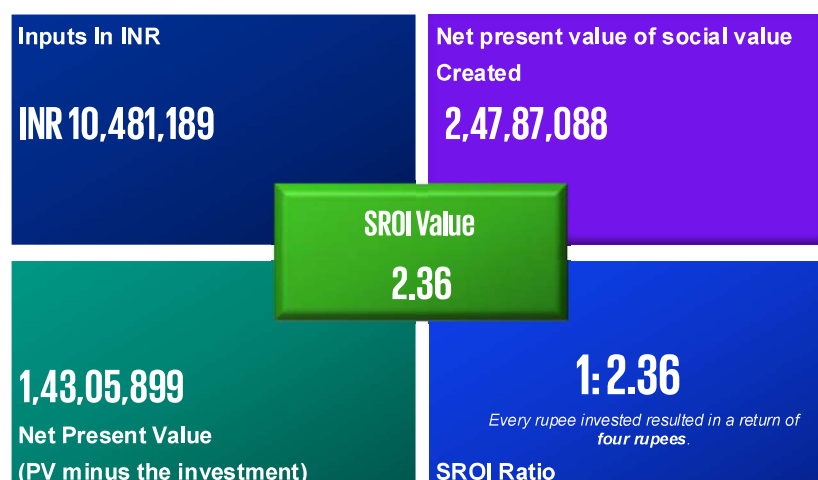
A **discount rate of 5%** has been used for the NPV calculations.

$$\text{SROI} = \{\text{Total present value of impact} / \text{Total value of input}\}$$

1.4. SROI Results

The SROI for this analysis- evaluative SROI (as on 2025) and evaluative cum forecast SROI (as on 2030) - is derived from dividing the total present value of the impacts by the total input value of the investment. This is considered because the beneficiaries who have received the support in 2025 would realise the impact for the next 5 years i.e., by 2030.

The below table shows the SROI Value and the SROI Ratio before sensitivity analysis:



For every INR 1 invested, the programme has generated social impact of INR 2.36

Sensitivity Analysis: Our calculations to arrive at the results provided in this report are relied on a variety of primary and secondary data, but the beneficiary data introduced a higher level of uncertainty. This survey was utilized to estimate the attribution, additionality of APL interventions to specific outcomes, and the duration of time the impact would last.

Sensitivity Analysis was used to test variables and assumptions to ensure that conservative estimates have been used in arriving at the SROI. For each impact area, we tested the impact of using one standard deviation above and below the average response to attribution survey questions.

With sensitivity computation, the value of the APL program can then be stated in a range. For every INR 1 invested, the social value generated is between INR 2.11 and INR 2.88.

Sr. No.	Base case Parameters	Base case SROI	Test case Parameters (Min-Max)	Test case SROI
1	Deadweight	2.36	Deadweight is 0%	2.19
			Deadweight is 8%	2.24
2	Displacement		Displacement 0%	2.11
			Displacement is 5%	2.13
			Attribution is 85%	2.63
3	Attribution		Attribution is 75%	2.00
			4	Drop-off
Drop-off is 5 years	2.36			

Limitations & assumptions for the SROI study

- The study is limited to the sample of beneficiaries interacted with on-ground during field visits.
- The survey conducted with sample beneficiaries is subjective in nature.
- The study is limited to the recall of the participants in the study.
- The financial proxies are limited to publicly available resources. The financial proxies are representative and based on professional judgement, but it may not be reflective of actual costs incurred due to several considerations. (Refer to Annexure for details of financial proxies)
- The deadweight, displacement, drop off values are derived from the responses from the stakeholders.
- While information obtained from the public domain or external sources has not been verified for authenticity, accuracy, or completeness, we have obtained information, as far as possible, from sources generally considered to be reliable. However, it must be noted that some of these websites/third party sources may not be updated regularly. We assume no responsibility for the reliability and credibility of such information.

An aerial photograph of a vast ocean with numerous small, white-capped waves. The water is a deep blue, and the white foam of the waves is scattered across the surface, creating a textured appearance. The perspective is from directly above, looking down at the water.

Way Forward

6. Way Forward

The field observations highlight both the positive impacts achieved through the watershed and water management interventions, as well as several systemic gaps that require strategic attention moving forward. While the improved irrigation cycles have contributed to enhanced agricultural productivity across seasons, the sustainability of these gains depends on strengthening community institutions, promoting equitable participation, and ensuring scientific water management practices. Addressing these gaps through coordinated and community-inclusive efforts is essential for sustaining long-term water security.

A key area requiring focused action is the need to enhance community governance structures such as Water User Associations (WUAs). Their current low engagement and limited clarity of roles hinder effective water stewardship at the village level. Similarly, women's participation across the project cycle remains limited, underscoring the need for gender-responsive approaches that enable inclusive decision-making. Strengthening these social and institutional mechanisms will ensure that interventions are community-owned, equitable, and more resilient.

Key Observations	Recommendations
During the visit, it was observed that women's participation in the project cycle is low, with men primarily making the decisions.	Introduce targeted training, capacity-building programs, and gender-mainstreaming initiatives. Ensure women are involved at all project stages to strengthen sustainability and promote gender equality.
Farmers reported that the improved irrigation cycle has increased agricultural output across all seasons. However, some farmers have begun cultivating water-intensive crops like sugarcane, which may lead to overuse of shared water resources.	Encourage balanced crop diversification toward less water-intensive crops. Establish community water-use guidelines and promote efficient irrigation methods to safeguard water resources and prevent the tragedy of the commons.
Water User Associations (WUAs) formed for WHS beneficiaries were largely inactive. Members were unclear about their roles and responsibilities, resulting in low participation in water stewardship.	Strengthen WUA engagement by facilitating community-level water budgeting and crop planning exercises to improve understanding of water availability and irrigation needs.
It was noted during the visit that observation wells were identified in the village however control well near the or just far from the intervention areas was not identified. Control well observation help to gauge the impact by comparing water levels by comparing the level between two wells	Conduct detailed hydro-geological and engineering planning to design elevation-specific water security solutions. Explore alternatives such as gravity-based water systems, high-elevation storage structures, and improved distribution planning. Support the Panchayat with technical and financial guidance for installing an efficient solar pump system to reduce long-term operational costs and ensure equitable access to water for high-elevation households.
Project has potential to scale in the near by geography as more such water conservation can be carried out as reported the PRI members	Strengthen collaboration with PRIs and district-level institutions to mobilize convergence of schemes and resources to scaling these kind of water conservation measures

Annexure (Financial Proxies used for SRoI)

Outputs	What changes?	How much?	Valuation approach (monetary) is spreadsheet).	Monetary valuation
Construction and refurbishment of Check dams/ Water Harvesting Structures	Creation of sustainable water supply through increment in availability and accessibility of water	Increase in water harvesting capacity (Quantum of Water Potential created or Water Harvested in Cubic Metre)	Groundwater abstraction charges for Drinking and Domestic use (Central Water Commission) per cubic metre	2.00
		Increased availability of water for irrigation - surface water from WHS (Number of farmers x Avg increase in Irrigated land)	Irrigation charges in Maharashtra	800.00
		Increased availability of water in wells / borewells (number of farmers/community members x Avg increase in availability of water in months)	Average HH requires 220 LPCD daily and using it for a months gets us the water requirement = 6600/HH/month Charges for purchasing water (One water tanker of 4000 litre capacity) - INR 200/- in Maharashtra	400.00
	Increased agriculture production due to increment in availability of water	Increase in availability of Net Sown Area (in Ha) (Number of farmers x Avg increase per farmer)	Average increase in Net sown area indicated by respondents (Ha) Avg Yield of Rice in Satara district = 1550 kg/ha MSP of Paddy in Maharashtra 2369/Q	36719.50
		Increase in agriculture produce (Number of farmers x Avg increase in yield in the year)	Average increase in Yield indicated by respondents (Quintals) MSP of Paddy in- 2369/Q	2369.00
		Increase in agriculture produce (Number of farmers x Avg increase in yield in the year) Season 2	Average increase in Yield indicated by respondents (Quintals) MSP of groundnuts in- 6783/Q	2370.00
Availability of potable water for household consumption due to increased Ground water level and WHS	Increased quality and accessibility to potable water leading to improved health of community members	Reduction in Drudgery for members of household (number of households x Avg person-hours saved)	Minimum hours spent in rural India to fetch water = 15 hours Minimum wage paid under MGNREGA in FY 2021-22 per hour	585
Creation of employment opportunities	Availability of increased labour opportunities locally (own or nearby villages) due to reduced migration	Reduction in migration (seasonal for labour work) (number of members reporting instances of reduced migration x days of work in WHS MGNREGA and/or agriculture)	3 months of Summer season and 8 days of work/month basis MGNREGA gives a total of 24 days of work Minimum wage paid under MGNREGA in FY 2022-23	312.00
		Improved sensitization towards child's education (Number of respondents reporting increased spend on child's education)	Basis NSS 68th Round (2011-12), MPCE in Rural areas on Education is Rs.50. Inflation Adjusted Cost (using Cost Inflation Index) for MPCE at 2021-22 prices comes out to be Rs.86.14/-. For a family of 2 children, the yearly expenditure has been considered for calculation.	2067.36
Extended impact on the environment	Increased green cover due to access to water for extended period/ throughout the year due to WHS	Increased green cover canal/ river due to WHS construction for extended period/ throughout the year (in Metres)	Cost of Sowing/ Dribbling of seeds of grass, trees and shrubs under MGNREGA (cost per metre)	0.58
	Improved bio-diversity due to availability of water for extended period / throughout the year... (birds/animals from nearby area using the water during summer)	Community members enjoying view of more birds and animals with pleasant environment	Cost of visiting animal zoo/ bird zoo	20.00



IMPACT ASSESSMENT OF INTEGRATED WATERSHED MANAGEMENT PROJECT AT KHANDALA, SATARA, MAHARASHTRA

March 2026
Asian Paints Limited



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Vice-President, Corporate affairs & CSR

Asian Paints Limited

Mumbai, Maharashtra– 400055

India

26 March 2026

Subject: Final report for Impact assessment of CSR Projects

Dear Mr. Amit Kumar,

We appreciate the opportunity to assist Asian Paints Limited in providing **Impact assessment of CSR Projects** related services.

Please find enclosed our final report, which has been prepared in accordance with the scope and terms stated in our engagement letter dated 3rd February 2026. With this deliverable, we have completed our obligations as stated in our engagement letter.

It has been our privilege to have this opportunity to work with you, and we look forward to continuing our relationship.

Yours sincerely

Signed by:

Jignesh Phakkar,
Partner,
KPMG Assurance and Consulting Services LLP

Disclaimer

- *Our report has been prepared solely for Asian Paints Limited. KPMG does not accept or assume any liability, responsibility, or duty of care for any use of or reliance on this report by anyone, other than our Client, to the extent agreed in the Agreement.*
 - *Impact assessment is limited to the projects allocated by Asian Paints Limited*
 - *OECD DAC and SROI framework has been used in preparing the report as detailed herein. No professional assurance standards ex. ISAE, SSAE etc. have been applied while preparing this report and accordingly the rigors applicable under such standards are not applicable for the scope covered by our report.*
 - *Procedures, analysis and recommendations, if any, are advisory in nature basis the information collected from various sources both publicly and those provided by the client.*
 - *Our observations represent our understanding and interpretation of the facts based on reporting of beneficiaries and stakeholders.*
 - *Our report, by its very nature, may involve numerous assumptions, inherent risks, and uncertainties, both general and specific. The conclusions drawn shall be based on the information available with us at the time of preparing the report.*
 - *We shall not perform an audit and shall not express an opinion or any other form of assurance. Further, comments in our report are not and shall not be intended, nor should they be interpreted to be legal advice or opinion. Client shall be fully and solely responsible for applying independent judgment, with respect to the findings included in the report, to make appropriate decisions in relation to future course of action, if any. We shall not take responsibility for the consequences resulting from decisions based on information included in the report.*
 - *While information obtained from the public domain or external sources has not been verified for authenticity, accuracy, or completeness, we have obtained information, as far as possible, from sources generally considered to be reliable. However, it must be noted that some of these websites/third party sources may not be updated regularly. We assume no responsibility for the reliability and credibility of such information.*
 - *Our work shall be limited to the specific procedures described in this Engagement Letter and shall be based only on the information and analysis of the data obtained through interviews of beneficiaries supported under the programme, selected as sample respondents and discussions with APL team and stakeholders of the programme. Accordingly, changes in circumstances or information available after the review could affect the findings outlined in our report.*
 - *In no circumstances shall we be liable, for any loss or damage, of whatsoever nature, arising from information material to our work being withheld or concealed from us or misrepresented to us by any person to whom we make information requests.*
 - *In accordance with its policy, KPMG advises that neither it nor any of its partner, director or employee undertakes any responsibility arising in any way whatsoever, to any person other than Client in respect of the matters dealt with in this report, including any errors or omissions therein, arising through negligence or otherwise, howsoever caused.*
 - *In connection with our report or any part thereof, KPMG does not owe duty of care (whether in contract or in tort or under statute or otherwise) to any person or party to whom the report is circulated to and KPMG shall not be liable to any party who uses or relies on this report. KPMG thus disclaims all responsibility or liability for any costs, damages, losses, liabilities, expenses incurred by such third party arising out of or in connection with the report or any part thereof.*
 - *By reading our report, the reader of the report shall be deemed to have accepted the terms mentioned hereinabove.*
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CONTENTS

1.	Executive Summary.....	4
2.	Introduction.....	8
1.1.	Background.....	8
1.2.	Asian Paint Limited	9
1.3.	1.3 About The Study.....	9
1.4.	1.4 About The Project.....	10
1.5.	1.5 About Implementing Partner.....	10
1.6.	1.6 Project Geography	11
2.	Approach And Methodology	14
2.1.	Our Approach.....	14
2.2.	Oecd-Dac.....	14
2.3.	Social Return On Investment (Sroi).....	17
2.2	Detailed Methodology	18
3.	Analysis And Findings	25
3.1.	Demographic Profile.....	25
3.2.	Accessibility Of The Project Across All Community Groups	27
3.3.	Support For Water Harvesting Structures	28
3.4.	Impact On The Availability And Accessibility Of Water	28
3.5.	Impact On The Surface Water And Water Quality	29
3.6.	Impact On Ground Water	30
3.7.	Impact On Agricultural Productivity	31
3.8.	Impact On Animal Husbandry.....	32
3.9.	Impact Of Silt Application	33
3.10.	Impact On Crop Productivity	33
3.11.	Impact On Income From Agriculture.....	34
3.12.	Impact On Assets	35
3.13.	Impact On The Environment	36
3.14.	Case Study.....	37
4.	Measuring The Social Return	39
4.1.	Evidencing Outcomes	39
4.2.	Establishing Impacts	40
4.3.	Calculating Impact.....	40
4.4.	SROI Results	41
5.	Way Forward	44
6.	Annexure	45

List of Abbreviations

APL	Asian Paints Limited	mS/cm	Milli Siemens per centimeters
ATMA	Agricultural Technology Management Agency	MSP	Minimum Support Price
BCM	Billion Cubic Meters	NITI	National Institution for Transforming India
BIS	Bureau of Indian Standards	NMAET	National Mission on Agricultural Extension and Technology
BOD	Biochemical Oxygen Demand	NPV	Net Present Value
CGWB	Central Ground Water Board	O&M	Operation and Maintenance
CGWB	Central Ground Water Board	OC	Organic Carbon
CPCB	Central Pollution Control Board	OECD-DAC	Organisation for Economic Co-operation and Development-Development Assistance Committee
CSR	Corporate Social Responsibility	OOPE	Out-of-Pocket Expenditure
CWC	Central Water Commission	pH	Potential of Hydrogen
dS/m	Deci Siemens per Meter	ppm	Parts Per Million
EC	Electrical Conductivity	PRI	Panchayati Raj Institution
FGD	Focus Group Discussion	qtl	quintal
FIG/FI	Farmer Interest Group	RFP	Request for Proposal
FPO	Farmer Producer Organization	ROI	Return on Investment
ft	Feet	SAR	Sodium Adsorption Ratio
HH	Household	SDG	Sustainable Development Goal
INR	Indian Rupees	SEZ	Special Economic Zone
IS	Indian Standards	SHG	Self-Help Group
kg/ha	Kilogram per Hectare	SRI	System of Rice Intensification
kg/ha	Kilograms per hectare	SRoI	Social Return on Investment
KII	Key Informant Interview	TDS	Total Dissolved Solids
KPI	Key Performance Indicator	TOC	Theory of Change
LPCD	Litres Per Capita Per Day	tons/acre	Tons per acre
me/L	Milliequivalents per litre	VI	Village Institution
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act	WASH	Water, Sanitation and Hygiene
MIDC	Maharashtra Industrial Development Corporation	WHS	Water Harvesting Structure
MPCE	Monthly Per Capita Expenditure	WUA	Water User Association

1. EXECUTIVE SUMMARY

Water scarcity remains one of India's most pressing development challenges, driven by increasing demand, climate variability, groundwater depletion, and the high dependence of rural livelihoods on agriculture. Semi-arid regions such as Khandala Block in Satara district face recurring water shortages, seasonal irrigation stress, and declining groundwater tables.

Asian Paints Limited has imbibed the philosophy of transformation in its DNA and has consistently reinvented the industry. Aligning with this approach, the company's CSR efforts are focused on achieving holistic and sustainable community development. There is a strong emphasis on fostering robust trust-based relationships with communities located in the vicinity of its plants and people in the unorganized sector. These inclusive development initiatives are concentrated on health and hygiene, water conservation, skill development, and disaster management.

To address these challenges, Asian Paints Limited (APL) implemented the Integrated Watershed Management Project (IWSM) in select villages primarily focusing on soil and water conservation, groundwater recharge, improved irrigation cycles, agricultural productivity, and community resilience. The project was executed by Vanarai, in the Khandala block of Satara district in the state of Maharashtra, a leading NGO in watershed-based rural development.

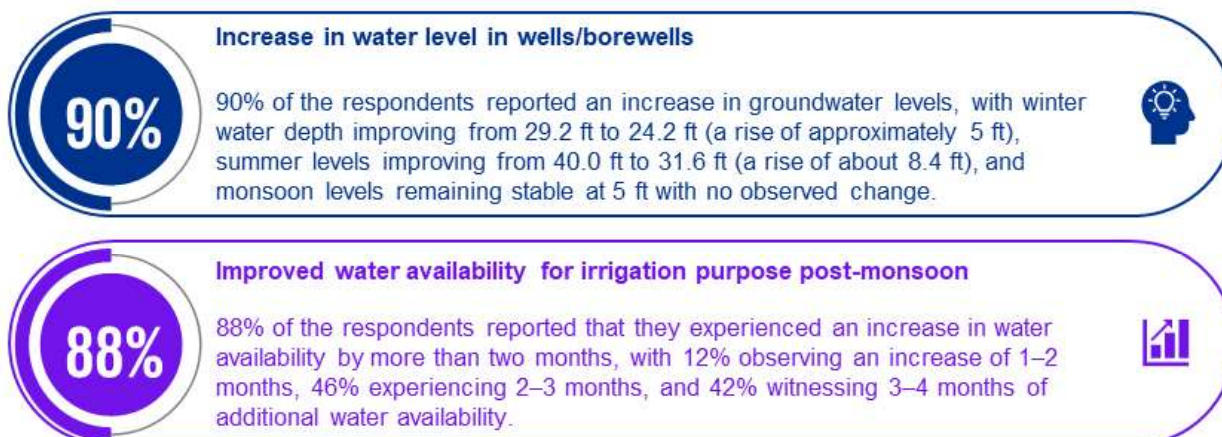
KPMG conducted this impact assessment covering interventions implemented in FY 2023-24, using OECD-DAC and Social Return on Investment (SROI) frameworks and this was conducted using a mixed-method approach. For this study, KPMG interacted in three villages in the Khandala block of Satara, including direct beneficiaries and indirect beneficiaries, which include farmers, community members, PRI members and staff of the implementing agency.

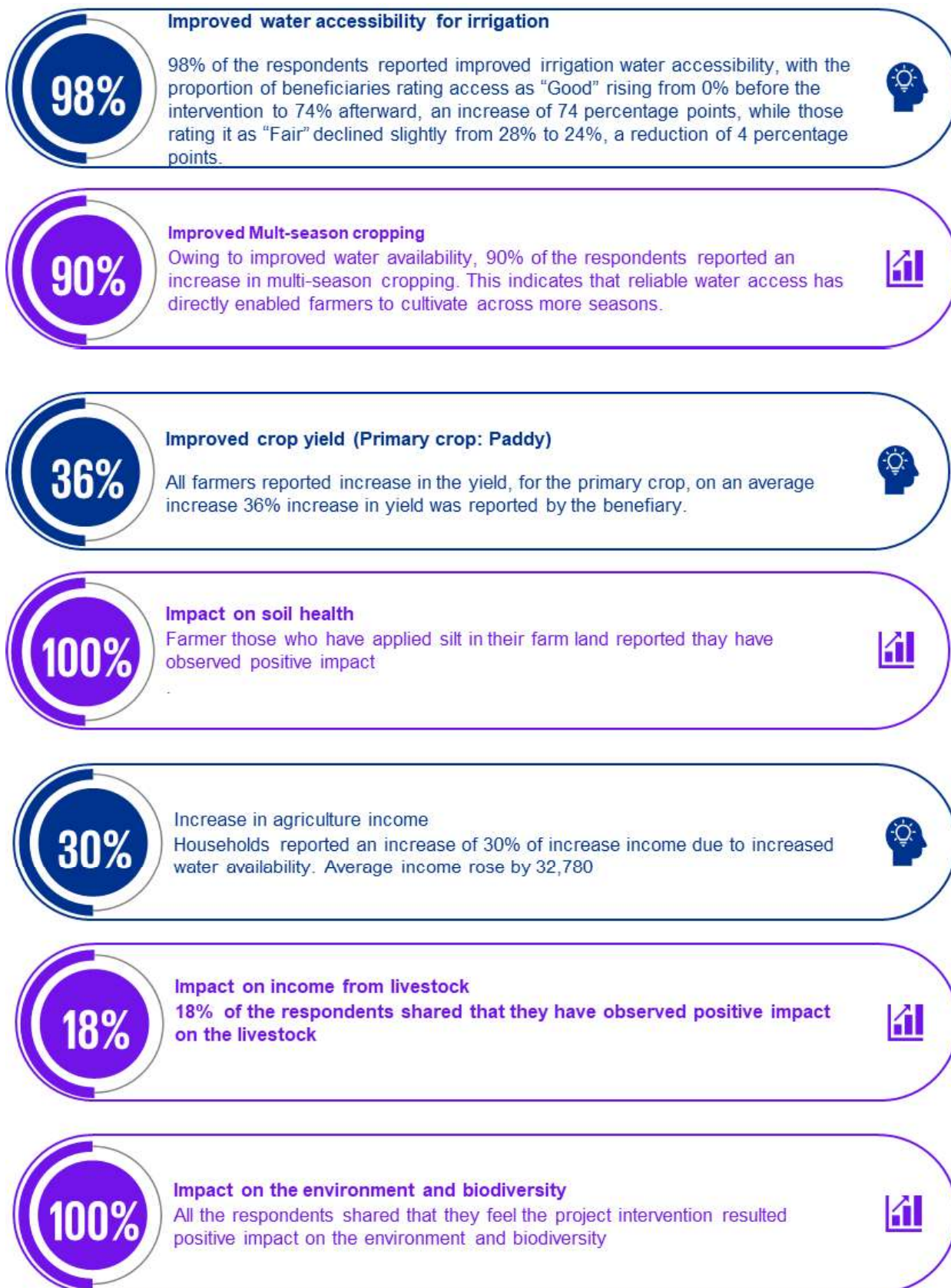
Key Output Numbers

2.65 Lakh KL
Water potential
created

608
Beneficiary covered

Key highlights from the impact assessment study





Key findings as per the IRECS framework

Findings basis IRECS framework

I- Impact

- Communities reported a visible and reassuring revival of water sources, with many households noting that wells and borewells now sustain water for longer periods, reducing seasonal distress and uncertainty. The extended availability of irrigation water has given farmers a sense of reliability and control over their cropping cycles, reducing their dependence on erratic monsoon patterns.

R- Relevance

- Majority of respondents dependent on agriculture
- Interventions such as check dams, desilting, contour trenches, and soil moisture conservation directly respond to the community's need for reliable water access and improved irrigation.

E- Efficiency

- Project completed within set timelines

C- Coherence

- Project Alignment with National Priorities -
- Directly converges with Jal Shakti Abhiyan and 'Catch the Rain' campaign of Ministry of Jal Shakti.
- Project align with the SDGs as mentioned, SDGs 6, SDG 1, SDG 2, SDG 15

S- Sustainability

- 100% of respondents shared good ratings for the project
- Positive impact on biodiversity due to increased surface water availability
- User group shall be strengthened for the better and assured maintenance of the WHS

SROI - Results

1

Net Present Impact Value

INR 4,77,21,617

2

SROI Ratio

1:2.57

3

Sensitivity range

₹2.04 - ₹2.88 per ₹1 invested.

Stakeholder interactions revealed several critical insights that shape the programme's future direction. Women's participation in the project cycle remains low, with decision-making dominantly managed by men. This gap affects inclusivity and limits the programme's potential to generate multi-dimensional benefits at the household level. Farmers reported that improved irrigation cycles have significantly enhanced agricultural output across seasons. However, an emerging concern is the shift toward water-intensive crops such as sugarcane, which may lead to unsustainable pressure on shared water resources. Water User Associations (WUAs), although formed, remain largely inactive as members are not fully aware of their roles and responsibilities, resulting in weak community stewardship. Furthermore, villages situated at higher elevations, such as Zagalwadi, are receiving limited benefits from the water conservation structures because excess water naturally flows toward lower-lying areas like Loham village. This has increased operational costs for the Panchayat, which currently relies on pumped water prompting requests for support in setting up a more efficient solar pump system.

Way forward

Going forward, it is critical to integrate gender-inclusive strategies such as tailored capacity-building programmes and leadership opportunities for women, ensuring their involvement across all stages of project development and decision-making. To prevent long-term stress on water resources, the programme should encourage farmers to diversify into less water-intensive crops and adopt efficient irrigation technologies. Strengthening Water User Associations is essential and can be achieved through structured training on water budgeting, crop planning, and governance practices. Additionally, technical solutions must be customised for high-elevation villages by developing gravity-based distribution systems, elevated storage structures, and improved engineering designs that ensure equitable water access. Supporting local Panchayats in transitioning to efficient solar-powered pump systems will reduce operational costs and enhance water security. These measures, collectively, will help ensure that the gains from the IWSM project are sustained, inclusive, and resilient in the long term.

The Integrated Watershed Management Project in Khandala has driven meaningful improvements in water availability, agricultural productivity, environmental restoration, and household livelihoods. The positive social return on investment demonstrates strong value creation, reflecting enhanced incomes, ecosystem benefits, and community well-being. To sustain and expand these gains, strengthening governance structures, enabling equitable access including for high-elevation communities and deepening community ownership are essential. With continued focus and strategic adjustments, the project has strong potential to serve as a scalable model for watershed-based rural resilience.

2. INTRODUCTION

This chapter consists of an overview of the water stress in Indian context and Asian Paints Ltd.'s CSR efforts to address the issue. It provides an overview of the project, implementing partners, project geographies, scope, and purpose of the study.

1.1. Background

Water security has reached a critical inflection point in India because of rapid development, population pressure and climate volatility. As of 2025, India sustains approximately 18% of the global population with only 4% of the world's freshwater resources.¹ The NITI Aayog Annual Report (2024-25) warned that the country's average per capita water availability is projected to decline to 1,341 cubic meters by late 2025, pushing the nation further into the "water-stressed" category (threshold < 1,700 m³) and nearing the "water-scarcity" limit of 1,000 m³.² With abundant flow in Ganga and Brahmaputra basins and much lower availability in west and south-western basins, regional disparities exist that make proper management of local demand essential.

India's water budget remains heavily dependent on a fluctuating monsoon and there are both quantity and quality concerns with groundwater. According to the Dynamic Ground Water Resource Assessment (2024) published by Central Ground Water Board (CGWB), the total annual groundwater recharge is estimated at 446.90 Billion Cubic Meters (BCM), with an annual extractable resource of 406.19 BCM. While the average extraction rate is 60.47%, regional disparities are severe. Out of a total of 6,746 assessment units, approximately 11.1% of assessment units, primarily in Punjab, Haryana, Rajasthan, and Delhi, are classified as "over-exploited", where extraction exceeds natural replenishment.³ On groundwater quality, CGWB's Annual Ground Water Quality Report 2024 highlights localized exceedances of nitrate, fluoride, and arsenic in shallow aquifers across different states, varying seasonally with recharge and agricultural inputs.⁴ The report mentions Triple Contamination Challenge in India's groundwater, referring to the three most widespread contamination threats, each stemming from different sources- nitrate (anthropogenic), fluoride (geogenic) and salinity/electrical conductivity (EC).

Surface water pollution is another important concern. Around 70% of India's surface water is contaminated, ranking the country 120th out of 122 on the global Water Quality Index. Central Pollution Control Board's latest report titled "Polluted River Stretches for Restoration of Water Quality" identifies 150 polluted stretches nationally, including 35 Priority-1 segments where Biochemical Oxygen Demand (BOD) is greater than 30 mg/L. Wastewater from various sources, intensive agriculture, industrial activities, and untreated urban runoff contribute to this pollution, compromising the health of both humans and aquatic ecosystems.

Climate change has added to the risk of water stress. In 2024-25, India experienced a 55% increase in record heatwaves, accelerating evapotranspiration and increasing the demand for irrigation which consumes over 80% of freshwater in rural areas.⁵ Because of climate change, the monsoon pattern has become erratic, characterised by long dry spells followed by intense cloudbursts. When this happens, the natural soil infiltration is affected which results in flash floods and reduced aquifer recharge.

In this challenging water landscape, the importance of watershed management becomes apparent. Watershed management is not merely a focus on water projects but involves a holistic approach to land-use practices, afforestation, and soil and water conservation. Watershed approaches work at the hydrological unit where supply, demand and quality intersect. Steps like planting trees and protecting stream banks, building small check-dams and farm ponds, contouring fields to slow water, using drip/sprinkler irrigation and involving local communities in simple monitoring make more rain soak into the ground, reduce silt in reservoirs, steady flows in the dry season and improve drinking-water availability. Such a holistic approach that addresses not only water

¹ United Nations World Water Development Report 2024, sourced at <https://unesdoc.unesco.org/ark:/48223/pf0000388948>

² NITI Aayog Annual Report 2024-25 [NITI AAYOG, India | Annual Report 2024-25](#)

³ [Press Release: Press Information Bureau](#)

⁴ CGWB Annual Ground Water Quality Report 2025 [CGWB - Publications Repository](#)

⁵ [India's Water Crisis: Why Climate-Resilient Governance is Urgent](#)

scarcity but also soil conservation and natural resource management is crucial for ensuring a sustainable and resilient water future for the country.

1.2. Asian Paint Limited

Asian Paints, headquartered in Mumbai, is one of the largest paint companies in India. Started in 1942, the company currently operates in 14 countries with products sold in over 60 markets. Asian Paints operates in various segments, including decorative paints, industrial and automotive coatings, and home décor products like furniture, lighting, and wallpapers. APL focuses heavily on research and development, which helps it keep introducing new and improved products. The company has also launched eco-friendly and sustainable paints, in line with the growing global preference for environmentally responsible solutions.

Asian Paints goes beyond its core business by actively contributing to social and environmental well-being through its Corporate Social Responsibility (CSR) initiatives. Guided by its values of trust, fairness, and care, the company focuses on creating long-term impact in communities around its operations. Its programmes address key areas such as water conservation, healthcare and skill development, leveraging its expertise to deliver meaningful change. The objective is to empower marginalised communities and improve quality of life by tackling critical social, economic, and environmental challenges. These efforts are closely aligned with the United Nations Sustainable Development Goals (SDGs), particularly, Goal 1 (No Poverty), Goal 2 (Zero Hunger), Goal 3 (Good Health and Well-being), Goal 6 (Clean Water and Sanitation), Goal 8 (Decent work and economic growth), Goal 11 (Sustainable cities and communities) and Goal 17 (Partnership for the goals).

Asian Paints runs several initiatives in water conservation, health and hygiene, skill development, and disaster relief. Its flagship Water Stewardship Program called the Watermark program, focuses on improving water availability and security in communities around its plants. The program combines supply-side measures like pond cleaning, desilting, check-dam construction and renovation, canal lining, and integrated watershed management with demand-side interventions such as micro-irrigation, System of Rice Intensification (SRI), and sustainable farming practices. These efforts aim to restore water bodies, reduce soil erosion, and recharge groundwater, while promoting efficient water use in agriculture. By adopting a holistic approach that includes soil health and pest management, Asian Paints helps strengthen ecosystem services and improve livelihoods.

1.3. About the Study

To understand the impact created by its interventions implemented in FY 2023-24, Asian Paints Ltd. empanelled KPMG to facilitate the impact assessment of its **Integrated Watershed Management Project**. The objective of this study was to assess the impact of these water stewardship activities on the beneficiaries and stakeholders covered under the projects. The study aimed to understand the immediate, medium, and longer-term impact of the interventions on the targeted beneficiaries:

The duration considered for this study is financial year 2023-24.

Impact on Access & Availability of Surface & Ground Water	• To understand the impact on ground-water recharge based on well recharge data • To understand the duration of water availability post-monsoon (in months) • To understand the impact of water accessibility, availability & livelihood of the farmers
Impact on Potable Water	• To assess the impact on drinking water availability and quality due to rainwater water harvesting structures. • To assess impact on other areas like drudgery reduction, drop in health issues around the drinking water etc.

Impact on Agricultural Land & Practices	• To assess impact on season wise cropping pattern led by the availability of water in the area. • To assess impact on soil health due to balance use of fertilizer because of adoption of recommendations of soil testing report and application of organic fertilizers • To assess impact on knowledge level of the farmers about improved agricultural practices.
Impact on Farmer's Livelihood	• To assess impact of water availability on crop production (yield/acre) • To assess impact of water availability on productivity of livestock animals • To assess impact on net return/acre per farmer. • To assess the impact on livelihood opportunities created through the programme.
Other Impact Areas Apart from Water Rejuvenation & Canal Lining	• To assess knowledge and adoption level of water efficient agricultural and risk mitigation farm practices. • To assess level of ownership by the community in the asset created: Whether community-based institutions had been formed and taking care of maintenance aspects of the assets created under the project.

1.4. About the project

Asian Paints' Water Stewardship Programs signifies the company's dedication to sustainable practices and responsible corporate citizenship. By addressing the challenge of water scarcity through community partnerships and integrated initiatives, Asian Paints aims to make a positive impact on both its operations and the communities it serves.

The Integrated Watershed Management Project in Khandala aimed at improving water availability and supporting sustainable agriculture in selected villages of Satara district. The project focused on increasing water storage capacity through soil and water conservation measures such as contour trenches, gully plugs, gabion structures, and desilting of existing water bodies. It also included repairing old structures and constructing new check dams to enhance groundwater recharge and ensure reliable water supply for farming. Alongside water conservation, the initiative promoted biodiversity and green cover in the watershed area, helping restore ecological balance. By improving irrigation and soil health, the project sought to boost agricultural productivity and farmer incomes while building resilience against drought. Community participation and capacity-building activities were central to the approach, ensuring long-term sustainability and shared benefits for rural households.

1.5. About implementing partner

Vanarai is a non-profit organization founded by Padma Vibhushan Dr. Mohan Dharia in 1986 with a mission to restore rural ecosystems and improve livelihoods through community-driven action. It promotes integrated watershed management using its ridge-to-valley approach, which combines soil and water conservation, afforestation, and sustainable farming practices. It encourages villagers to adopt eco-friendly principles and participate in activities like building check dams, planting indigenous trees, and improving sanitation and health.

Over the years, Vanarai has transformed hundreds of villages across Maharashtra, Gujarat, Goa, Dadra, Nagar, Haveli, and Karnataka by reviving water resources, planting millions of trees, and creating sustainable livelihoods. Its efforts have reduced migration, improved agricultural productivity, and empowered rural communities to manage their natural resources responsibly. Acting as planners, facilitators, and implementers of developmental plans, Vanarai promotes an integrated and sustainable rural development strategy.

1.6. Project Geography



Satara District is located in the western part of Maharashtra. It is bounded by Pune (North), Raigad (North-West), Ratnagiri (West), Sangli (South), and Solapur (East).

The district lies partly in the Western Ghats (Sahyadri range) and partly on the Deccan Plateau, resulting in hilly western regions and flat to undulating eastern plains.

Western Satara is mountainous with steep slopes and plateaus, while the eastern region consists of gently sloping plains and drought-prone areas such as Man and Khatav talukas. Satara is mainly drained by the Krishna

River basin and partly by the Bhima River basin. Major rivers include Krishna, Koyna, Venna, Urmodi, Tarali, Nira, and Manganga.

The climate varies from very high rainfall (>6000 mm) in Mahabaleshwar (Western Ghats) to low rainfall (~500–600 mm) in eastern talukas. Rainfall decreases from west to east due to the rain-shadow effect.

The district mainly has black cotton soil, light murum soil, and laterite soil. Black soils dominate river valleys, while laterite soils occur in western hilly regions. Due to varied soils and climate, crops such as sugarcane, paddy, jowar, bajra, wheat, pulses, and horticultural crops (strawberry, fruits) are widely grown. Satara district covers a total geographical area of approximately 10,480 sq. km, making it one of the larger districts in Maharashtra.

Khandala Block is situated in the northern part of Satara district, Maharashtra, approximately 55 km south of Pune. Administratively, it is one of the eleven talukas of Satara district, with Khandala town as its headquarters. The block shares boundaries with Purandar taluka (Pune district) to the north, Phaltan and Baramati talukas to the east, Wai and Bhore talukas to the west, and Wai and Koregaon talukas to the south. Due to its proximity to Pune and location along the Pune–Bangalore National Highway (NH-48), Khandala occupies a strategically important position in the district.

Khandala Taluka forms part of the transitional zone between the Western Ghats and the Deccan Plateau. The terrain is mostly undulating to gently sloping, with the Mahadev hill ranges covering parts of the southern boundary. The Nira River flows along the northern side of the block and is a major source of irrigation. Important water structures such as the Veer Dam and Bhatghar Dam support agriculture and industrial water demand in the region. The climate is semi-arid to sub-humid, with moderate rainfall compared to the western talukas of Satara. Soil types are predominantly medium to deep black cotton soils in irrigated areas and lighter soils in upland regions, making the block suitable for both agriculture and industrial development.

Although Khandala receives canal water from the Nira River system, water availability is highly seasonal. During good monsoon years, irrigation and drinking water supply improves, but summer months (March–May) regularly witness shortages in several villages and settlements due to declining reservoir levels and reduced canal rotations. Groundwater exploitation has increased significantly. Khandala is underlain by hard basaltic formations, where groundwater recharge is slow and storage is limited. Excessive borewell extraction has led to declining water tables during summer. Khandala Block is recognized as one of the most industrially developed talukas in Satara district. The key driver of industrial growth is the presence of MIDC-developed industrial areas, notably:

- Khandala MIDC Phase I & Phase II
- Lonand MIDC
- Kesurdi SEZ (MIDC)
- Shirwal Industrial Zone

These industrial estates benefit from excellent road connectivity via NH-48, proximity to Pune metropolitan region, and access to rail freight facilities at Lonand, making Khandala a preferred location for manufacturing and logistics units.

Approach & Methodology

2. APPROACH AND METHODOLOGY

The chapter provides details on the research design and methodology adopted for the impact assessment. It includes description of the key activities, data collection methods, and sampling strategies, employed to ensure the reliability and validity of the findings.

2.1. Our Approach

The study applied the OECD DAC and SROI frameworks to design the evaluation and measure the social returns and impacts generated by APL's CSR projects on water stewardship. The OECD DAC framework is a globally recognized approach for assessing the effectiveness of social development programs, while the SROI methodology goes beyond traditional economic metrics to capture broader social and environmental value.

A structured four-phase methodology was adopted to ensure a comprehensive evaluation. This approach integrated the principles of both OECD DAC and SROI throughout the process, enabling a robust assessment of outcomes and the overall impact of the program.

Phase I: Consulting and Scoping	Phase II: Research Design	Phase III: Data Collection	Phase IV: Analysis and Reporting
Kick-off meeting	Development of Impact Map	Development of field visit plan	Analysis of collected data using OECD DAC framework and estimating the SROI of the projects
Desk review of documents and reports related to the program	Mapping the stakeholders	Field visits and stakeholder interactions	Development of draft and final report
Determining the scope of the study	Designing sampling strategy and data collection tools		Presentation to APL Team

2.2. OECD-DAC

The Organization for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) introduced its evaluation criteria in 1991 as a structured framework for assessing development programs, whether ongoing or completed. This approach enables a systematic review of multiple dimensions of a program, offering both qualitative insights and quantitative measures of impact. The framework is widely recognized for its ability to evaluate effectiveness and relevance in social development initiatives. It is built around the following six key criteria, which form the basis for comprehensive program assessment under the OECD-DAC guidelines:



These evaluation criteria have been defined below along with illustrative questions:

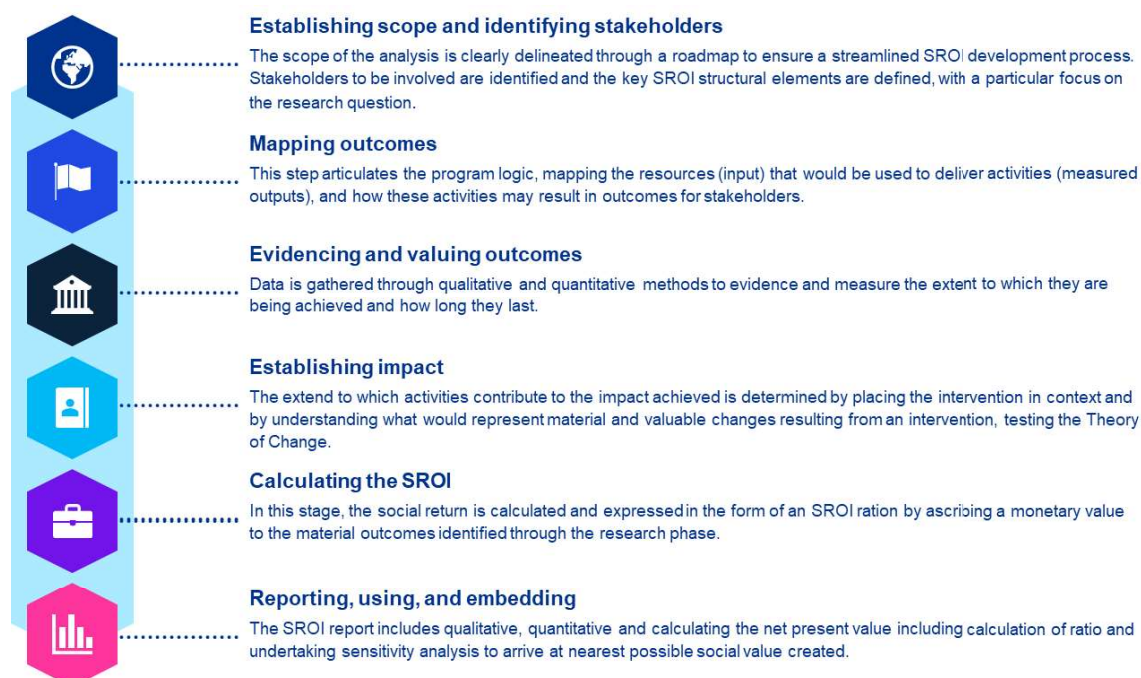
Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
Relevance	A measure of the extent to which the intervention objectives and design respond to beneficiaries, global, country, and partner/institution needs, policies, and priorities, and continue to do so if circumstances change. ▪ To what extent are the objectives of the project still valid? ▪ Are the activities and outputs of the project consistent with the overall goal? ▪ Are the activities and outputs of the project consistent with the intended impacts and effects?	<i>Commitments of the stakeholders are integrated into Project design and planning</i>
Effectiveness	A measure of the extent to which the intervention achieved, or is expected to achieve, its objectives, and its results, including any differential results across groups. ▪ To what extent were the objectives achieved / are likely to be achieved? ▪ What were the major factors influencing the achievement or non-achievement of the objectives?	<i>Achieved cross-cutting objectives during project implementation</i>

Evaluation Criteria	Illustrative Evaluation Questions	Cross-cutting Objectives
Efficiency	A measure of the extent to which the intervention delivers, or is likely to deliver, results in an economic and timely way. ▪ Were activities cost-efficient? ▪ Were objectives achieved on time? ▪ Was the project implemented in the most efficient way compared to alternatives?	<i>Resources are provided and efficiently used for participation of all stakeholders</i>
Impact	A measure of the extent to which the intervention has generated or is expected to generate significant positive or negative, intended, or unintended, higher-level effects. ▪ What has happened as a result of the project? ▪ What real difference has the activity made to the beneficiaries? How many people have been affected?	<i>Achieved real and long- lasting positive changes in the lives of intended beneficiaries</i>
Sustainability	A measure of the extent to which the net benefits of the intervention continue or are likely to continue. ▪ To what extent did the benefits of a project continue after donor funding ceased? ▪ What were the major factors which influenced the achievement or non-achievement of sustainability of the project? ▪ What can be some of the innovative ways to make the project sustainable in the long run?	<i>Likelihood that project achievements will continue after project</i>
Coherence	A measure of the extent to which the intervention is compatible with other interventions in a country, sector, or institution. ▪ Does the project address the synergies and interlinkages between the intervention and other interventions in the same organisation and in the same sector/policy landscape? Does it weaken or enhance the impact of any current programs or policies? ▪ Does the program lead to duplication of efforts?	<i>The extent to which other interventions (particularly policies) support or undermine the intervention and vice versa.</i>

2.3. Social Return on Investment (SROI)

Social Return on Investment (SROI) is a structured approach designed to capture and measure the broader value created by an investment. It covers the social, environmental, and economic benefits that traditional cost-benefit analyses often overlook. This methodology assigns monetary values to social and environmental outcomes, enabling organisations to calculate how much value is generated for every rupee spent on a program. Unlike conventional assessments, SROI focuses on changes that matter most to stakeholders, providing a clear picture of the social impact of projects and policies.

By using SROI, organisations can demonstrate the social value their initiatives deliver, gain deeper insights into stakeholder impact, and integrate these findings into strategic decision-making. It is fundamentally about value rather than just financial returns and can be applied to an entire organisation or a specific program. The



approach uses a theory of change or impact map to outline how interventions lead to measurable outcomes, expressed in monetary terms, allowing for a benefit-to-cost ratio calculation. SROI combines qualitative, quantitative, and financial data, along with case studies, to inform future planning. Its key advantage lies in going beyond identifying outcomes to valuing them and calculating their social worth. Steps of a SROI are as below-

Setting the Scope 	Identification of stakeholders including beneficiary group, finalising the scope- setting the boundary of what is going to be considered for evaluative SROI - stakeholders including beneficiaries, impacts, program period, etc.
Mapping Outcomes 	Creating impact map, identifying investments, and valuing inputs, identifying outcome sand indicators for monitoring / evidencing outcomes
Evidencing Outcomes 	Collecting and analysing outcome data and establishing how long the outcome will last

Establishing Impacts 	Identifying and valuing financial proxies, adjusting outcomes using deadweight, displacement, attribution and drop off, calculating the impact
Calculating SROI 	Programming the value of outcome into future based on the duration for which the impact will last, calculating the net present value including calculation of ratio and undertaking sensitivity analysis.

The process of calculation of SROI largely focuses on deadweight, displacement, attribution, and drop-off in association with any outcomes achieved. All these aspects are generally expressed as percentages and these percentages are applied to the financial proxy of each outcome to arrive at the total impact for the outcome. Therefore, we used a customised framework involving a combination of OECD-DAC and SROI to obtain a full picture of the impact created by APL.

2.2 Detailed Methodology

The following section discusses the methodology being employed by KPMG in this impact assessment, which has been broken down into four phases.

PHASE I: CONSULTING AND SCOPING

Activity 1: Inception Meeting

The initial step involved a scoping and kick-off meeting between the KPMG team and APL to finalize the work plan. The key tasks, timelines, and approach for the engagement were discussed. A detailed project plan was prepared by KPMG to guide the execution.

Activity 2: Desk Review and Stakeholder Engagement

The team conducted a thorough review of documents provided by APL, including concept notes, annual reports, and progress or closure reports. Secondary research was also conducted to gain an in-depth understanding of the project locations and interventions. Additionally, discussions with APL and implementing partners helped clarify KPIs, map external stakeholders, and define the sampling strategy and size.

PHASE II: RESEARCH DESIGN

Activity 1: Developing the Impact Map / Theory of Change

An impact map based on the theory of change was created to define the project's outcome and impact parameters. This map serves as a logical framework that illustrates how inputs (actions or activities undertaken) lead to outputs (immediate changes resulting from interventions), which then drive outcomes (short- or medium-term effects linked to those outputs) and ultimately generate impact (positive or negative, intended or unintended, direct or indirect) arising from the interventions.

Activity 2: Stakeholder Mapping and Sampling strategy

Stakeholder mapping is the process of identifying all the stakeholders involved in a project and their roles and responsibilities on one map. The main benefit of a stakeholder map is to get a visual representation of all the people who can influence the project and how they are connected. Stakeholders who experience change, whether positive or negative because of the interventions carried out were considered for the study. Furthermore, their pertinence to the scope of the study and relevance to the overall analysis were assessed.



Sampling of stakeholders for engagement was done based on the materiality of the stakeholder and the extent of the impact on the stakeholder. Considering the overall outreach of the project as nearly 3500 beneficiaries, the statistically significant sampling has been derived. Additionally, we have taken extra sample stakeholder to derive accurate social return on investment ratio. The stakeholder-wise mode of interaction has been detailed out below:

Stakeholder type	Universe	Sample	Actual coverage
Farmers Benefited due to water intervention	3, 500	100	100
PRI members Benefited due to water intervention	-		6

Stakeholder	Reason for Inclusion	Data collection tool
Farmers who have been benefitted due to water harvesting related interventions	Since the farmers are the direct beneficiaries of this study hence it is important to include them to understand if the objectives of this program have been met.	Structured Questionnaire: were developed In-depth Interview: were also undertaken
Farmers who have been benefitted due to agriculture related interventions	Agriculture is a key intervention, Hence, it is critical to get their perspective of the beneficiaries	Structured Questionnaire: were developed for farmers In-depth Interview: were also undertaken

Stakeholder	Reason for Inclusion	Data collection tool
Community members benefitted due to potable drinking water	The community members from the intervention area have been a key stakeholder and receiver of the impact hence, it is important to get their perspective.	Semi-structured Questionnaire: were developed for community members
WUA members	In order to understand the governance mechanism established over the water usage, these stakeholders are important	Structured Questionnaire: were developed In-depth Interview: were also undertaken
PRI Members and government officials	In order to understand broad perspective of the community members through elected members	Structured Questionnaire: were developed In-depth Interview: were also undertaken
Stakeholders excluded from the study		
Community members from periphery of intervention villages	Excluded - It was understood from the implementing team that due to no direct intervention, these stakeholders will remain outside the scope of the intervention	Not applicable

The study includes three categories of beneficiaries: primary, secondary, and tertiary. Farmers, as the direct and intended recipients of project interventions, constitute the primary beneficiaries. Their family members and other community stakeholders constitute the secondary beneficiaries. Additionally, interactions were conducted with institutional stakeholders such as Panchayati Raj Institution (PRI) representatives and government officials, who constitute the tertiary stakeholders.

(Refer next page for the impact map)

Stakeholder	Project Objectives	Inputs	Output	Outcome	Evidence Indicator
Farmers, Community members FPO/VI/WUA	To promote basic supplementary irrigation facilities by creating and strengthening water harvesting structures and increase water storage and availability	Construction and refurbishment of check dams, ponds and other WHS, Capacity building, Access to Finance, Time	Number of families reached out / availed benefits of check dams and other water harvesting structures	Increase in agricultural production	Changes in availability of cultivated land Changes in cropping pattern by farmers Changes in multi-seasonal cropping
				Access to secure livelihood	Changes in the input cost required for agriculture
				Creation of sustainable water supply	Changes in the irrigation fed agriculture, changes in the availability of water, reduced dependency on the other sources of water
				Creation of employment opportunities	Changes in the labour employment by the local population
	To improve and stabilize surface soil to convert unirrigated land to irrigated land.		No. of families benefited from Group wells & Borewell	Access to potable water	Reduction in water borne diseases (Improvement in health), reduction of drudgery (time saved)
				Access to secure livelihood	Changes in the input cost required for agriculture, adoption of improved agriculture practices
To organize and strengthen the village institutions around water harvesting and related livelihoods					

			No. of village institutions benefited	Establishing community stewardship over the common water resources	Community led governance of its resources, effective operations, and maintenance of water structures
			Increase in water storage capacity	Improved biodiversity in the catchment area	Increase in biomass in command area, Improved bio-diversity – presence of bird and animal species, Improved soil health, Reduced soil pollution.

Activity 3: Development of Data Collection Tools

The study adopted a mixed-methods approach, combining quantitative and qualitative techniques for data collection and analysis. Initially, a comprehensive desk review was conducted to assess existing knowledge and identify gaps for further investigation. Following the literature review and research design, survey instruments were created based on the impact map to gather both quantitative and qualitative data from a sample population using offline methods. These tools captured participants' experiences, attitudes, and behaviors. Additionally, semi-structured interviews were designed for key stakeholders, including experts, PRI members, government officials, community leaders, and practitioners, to gain deeper insights into the research topic and emerging best practices. All tools were aligned with program objectives and the scope outlined in the RFP, with additional questions incorporated to enrich the case study. The tools developed include:

- Tools for individual interactions
- Tools for focus group discussions
- Tools for other key stakeholder interactions
- Development of a research and data collection plan

PHASE III: DATA COLLECTION

Activity 1: Development of Field-Visit Plan : Stakeholder interactions were planned in coordination with APL and the project implementing partner. A detailed timeline was prepared for the field visits, with the implementing partner providing support for scheduling meetings, mobilizing stakeholders, and arranging translators where necessary. The team also consulted with the partner to anticipate potential challenges such as language barriers, cultural sensitivities, or safety concerns. These measures ensured that the data collection process was efficient and conducted in an ethical manner.

Activity 2: Conducting Field Visits : Stakeholder consultations were carried out through individual interviews, focus group discussions (FGDs), and key informant interviews (KII). To ensure effective communication, KPMG included facilitators with prior experience and proficiency in local language. The data collection team underwent training and sensitization sessions to engage stakeholders appropriately. Before the main exercise, tools were pre-tested. Throughout the process, data collection was closely monitored for completeness, accuracy and consistency, including backchecks and triangulation.

PHASE IV: ANALYSIS AND REPORTING

Activity 1: Data analysis and preliminary findings: During the data analysis, both qualitative and quantitative analysis were conducted on the data collected. To enhance accuracy and reliability, the findings from the quantitative data collected on the ground were triangulated to an extent. The collected information was thoroughly analysed on a location disaggregated basis, allowing for a detailed understanding of the specific areas involved. To calculate the social returns and impacts resulting from the program, the SROI framework and OECD-DAC framework were utilized. Additionally, a sensitivity analysis was conducted to examine the results of the ROI. The data and observations obtained during the primary data collection phase and document review were carefully analysed to inform report writing. The findings were further scrutinised basis the assurance standards for SROI assessments.

Activity 2: Development of Report and Presentation: A comprehensive report was prepared for Asian Paints Limited at the enterprise level, capturing key observations, analyses, findings, and recommendations from the assessment. The report adhered to OECD-DAC and SROI framework guidelines to ensure accuracy and relevance. A draft version was shared with APL for review and feedback prior to finalisation. The finalised report was then presented to APL's leadership. Additionally, separate project-level reports were developed, providing detailed data and analysis. All collected data and corresponding analyses were also shared with APL.

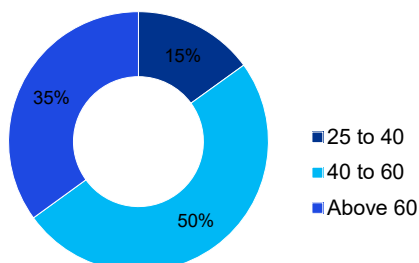
Analysis and Findings

3. ANALYSIS AND FINDINGS

3.1. Demographic profile

Age

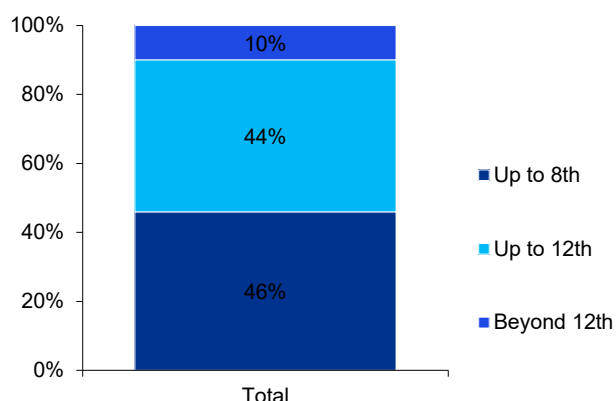
Age in years



The project reached a broad range of age groups. Among all beneficiaries, 50% are aged 40–60 years, 35% are above 60 years, and 15% are aged 25–40 years. This distribution indicates that participation was concentrated among middle-aged and senior households, with a smaller share of younger adults.

Education

Education



The majority of respondents possess only basic to moderate levels of education, with 46% educated up to the 8th standard and another 44% having completed schooling up to the 12th standard. Only 10% of the population has pursued education beyond the 12th standard, indicating that higher education attainment is relatively limited within the community. This distribution suggests that most beneficiaries rely on foundational literacy and practical knowledge rather than advanced academic qualifications. As a result, any capacity-building, training, or technical interventions in the project area must be designed to be simple, visual, and hands-on to ensure effective understanding and adoption. The low

proportion of higher-educated individuals also implies that community-driven learning approaches and demonstration-based methods are likely to be the most effective in building skills and enhancing participation. This distribution suggests that a substantial share of beneficiaries have basic literacy and schooling, with a moderate presence of individuals with higher secondary and post-secondary education. Such variation in educational levels is relevant for planning communication, training, and capacity-building activities within the watershed management project.

Income

Primary and secondary source of income

100%

of the respondents shared that they are primarily dependent upon the Agriculture for the livelihood

All respondents reported that agriculture is their primary source of livelihood, indicating a strong dependence on farming and related land-based activities. In addition to agriculture, several households also engage in secondary income-generating activities. Among these, livestock-related work (31%) and labour-based activities (31%) are the most common supplementary sources. A smaller proportion of respondents reported involvement in jobs (23%) and small businesses (15%) as secondary income avenues. This combination of primary and secondary livelihood sources suggests that while agriculture remains central to household economies,

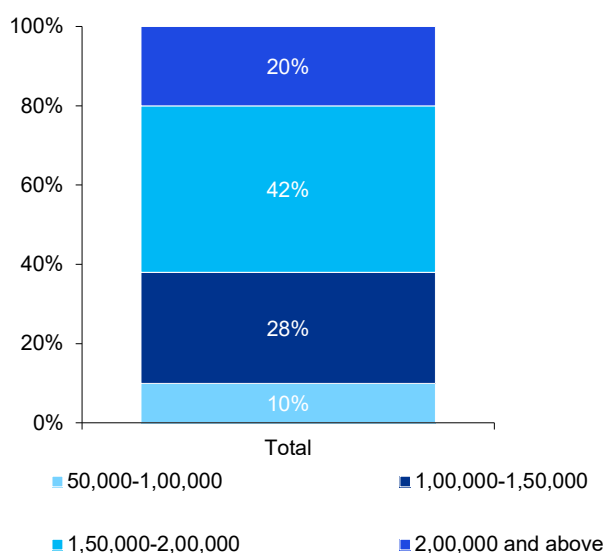
diversified income streams contribute to financial stability, particularly during periods of seasonal variation in agricultural work.

Secondary sources of income

Sources of income	% of the respondents
Small business	15%
Livestock	31%
Labourer	31%
Job	23%
Grand Total	100%

Income profile

Household income (unit in INR)



The income distribution among beneficiary households indicates that a significant share falls within the lower- to middle-income range. Approximately 42% of respondents reported an annual household income between ₹1,50,000 and ₹2,00,000, making it the most common income bracket. About 28% have an income in the range of ₹1,00,000 to ₹1,50,000, while 20% reported annual earnings of ₹2,00,000 and above. A smaller proportion, 10%, fall within the ₹50,000 to ₹1,00,000 bracket. This distribution highlights that most beneficiary households operate within modest income levels, which is relevant for understanding their ability to invest in agricultural inputs, adopt new practices, and sustain watershed-related interventions over the long term.

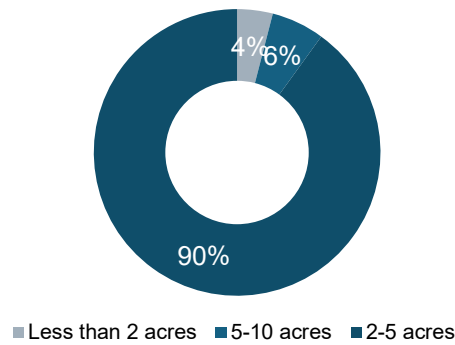
Land holding pattern

The landholding distribution shows that 78% of respondent households cultivate 2–5 acres, while 12% have less than 2 acres and 10% have 5–10 acres. This pattern indicates that the beneficiary group is predominantly composed of households with small to mid-sized operational holdings, with comparatively fewer at the lower and higher ends of the range. For an integrated watershed management project, this composition is relevant for planning plot-level soil and moisture conservation works, on-farm water harvesting, and efficient irrigation practices that are feasible at the household level.

Crop profile

The cropping pattern in the villages shows clear season-wise differentiation aligned with rainfall availability and irrigation access. During the Kharif season, cultivation is centered around paddy, sugarcane, and pearl millet, reflecting dependence on monsoon rainfall and crops suited to higher soil moisture conditions. Paddy remains an important seasonal crop, while pearl millet represents a relatively drought-tolerant option. Sugarcane, though perennial, continues to be managed during this period as a key cash crop.

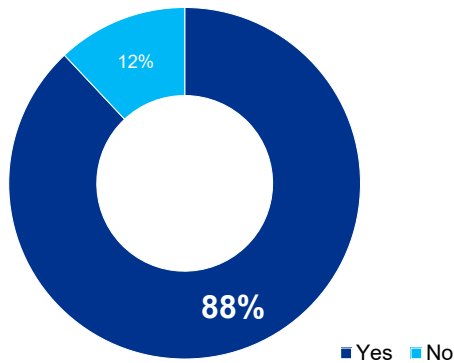
Land holding



Kharif	Rabi	Summer
Paddy	Wheat	Groundnuts
Sugarcane	Chickpeas	Pulses
Pearl Millet	Onion	
	Groundnuts	

Irrigation facility

Irrigation facilities?



Most respondent households reported having access to some form of irrigation. According to the data, 88% of farms have irrigation facilities, while 12% do not have any irrigation source. This distribution indicates that a majority of beneficiaries have at least basic infrastructure for water access on their agricultural land, which can support crop planning and improve the reliability of cultivation across seasons. Those who said yes have at least a well and an electric pump. 12% of the respondents are dependent on solely on the rains.

Impact Findings

3.2. Accessibility of the project across all community groups

The analysis reflects the level of inclusivity in the project's activities. The KPIs, accessibility for all social groups, is a critical measure of the project's social inclusivity, and the data indicate that the project has performed well,

100% respondents reported-



Accessibility for all social groups – class, caste, race, religion, differently abled, elderly, etc.

with a 100% accessibility rate. This indicates that the project has taken the necessary measures to ensure that all social groups, regardless of caste, class, race, religion, or other factors, have equal access to the support interventions. This demonstrates the project's commitment to social equity and inclusion. By improving accessibility for all social groups, the project can ensure that the benefits of its activities are shared equitably, promoting sustainable development in the region.

3.3. Support for water harvesting structures

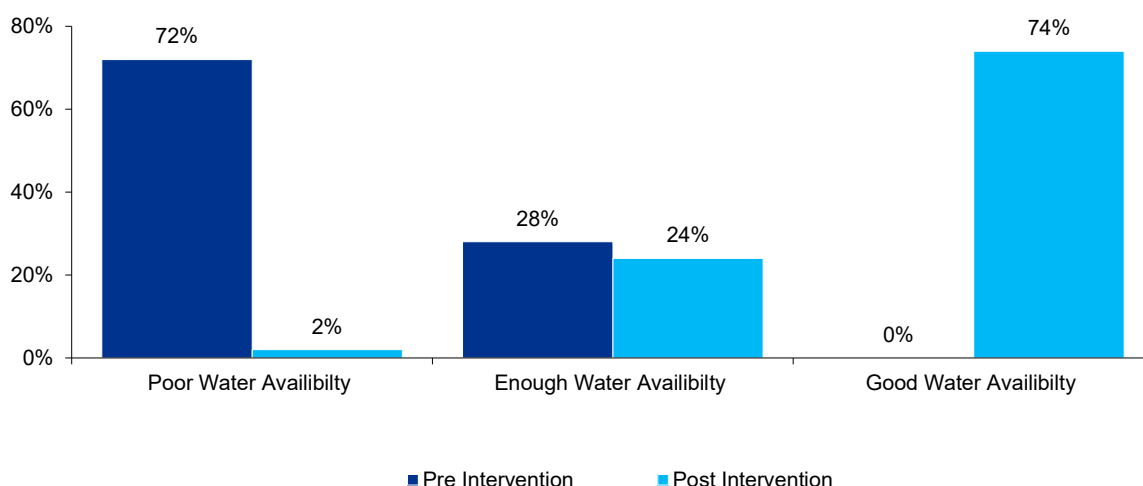
As part of the project evaluation, consultations were conducted with project beneficiaries to obtain feedback on the interventions. During these discussions, all respondents reported experiencing positive outcomes from the water-related activities implemented in the project area, indicating a broad level of satisfaction with the project interventions.

The consultations also revealed that beneficiaries were actively engaged during the planning and implementation stages of the project, and that their inputs were considered in decision-making processes. This reflects the participatory approach adopted by the project, which supports community ownership and contributes to the long-term sustainability of the interventions.

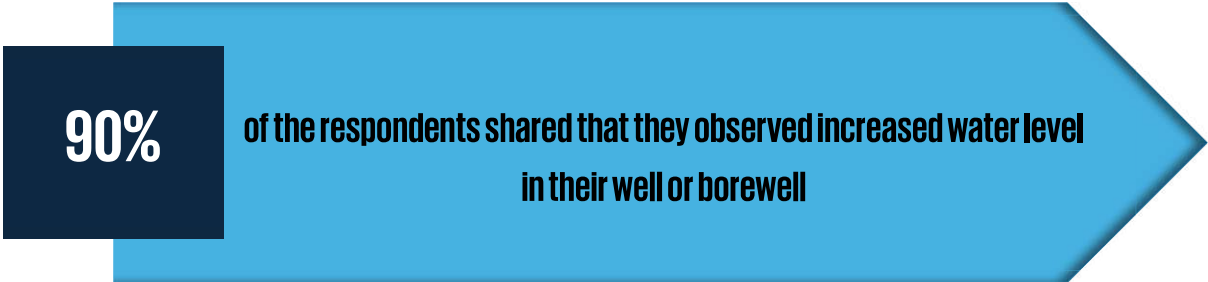
During the implementation phase, the implementing partner conducted regular awareness and motivation sessions to engage farmers who initially showed limited interest. These efforts helped address concerns, build understanding of the project benefits, and encourage community participation in project activities.

3.4. Impact on the availability and accessibility of water

Perception comparison of water availability pre and post intervention



The comparison of pre- and post-intervention data indicates a substantial improvement in household water availability. The proportion reporting poor availability decreased from 72% at baseline to 2% post-intervention (a 70 percentage-point decline, approximately a 97% reduction), while those reporting good availability increased from 0% to 74%. Consequently, the share of households with at least sufficient water (combining “enough” and “good”) rose from 28% to 98%, suggesting that many households progressed from adequacy to consistently reliable access. Notwithstanding these gains, the residual 2% reporting poor availability warrants targeted follow-up to diagnose localized constraints and ensure last-mile coverage.



90%

of the respondents shared that they observed increased water level
in their well or borewell



88%

of the respondents shared that they observed increased water
availability at least for 3 months

Perceived increased water availability in wells or borewells	Percent
3-4 months	42%
2-3 months	46%
1-2 months	12%
Grand Total	100%

Among respondents who experienced an improvement in water availability in their wells or borewells, the duration of this increase varies across households. The largest share, **46%**, reported that the improved water levels lasted for **2–3 months**. A slightly smaller proportion, **42%**, indicated that the benefit extended for **3–4 months**, while **12%** experienced enhanced availability for **1–2 months**.

This distribution suggests that a majority of beneficiaries observed sustained improvements for at least two months, with a considerable portion experiencing longer availability beyond three months. The variation in duration may reflect differences in local hydrogeological conditions, the type and location of watershed structures, and the intensity of groundwater use across households.

3.5. Impact on the surface water and water quality

During the Focus Group Discussion (FGD), it was observed that in locations where excavation works were undertaken, surface water availability has improved and is sustained for a longer duration. As reported by a PRI member, surface water in these areas is now available until the months of March–April, whereas earlier it was available only up to December. Although this surface water is not directly used by households for domestic purposes, it is utilized by some villagers for livestock maintenance.

18% of the respondents shared that they are taking water directly from the surface water or water from water harvesting structures using electric water pumps.

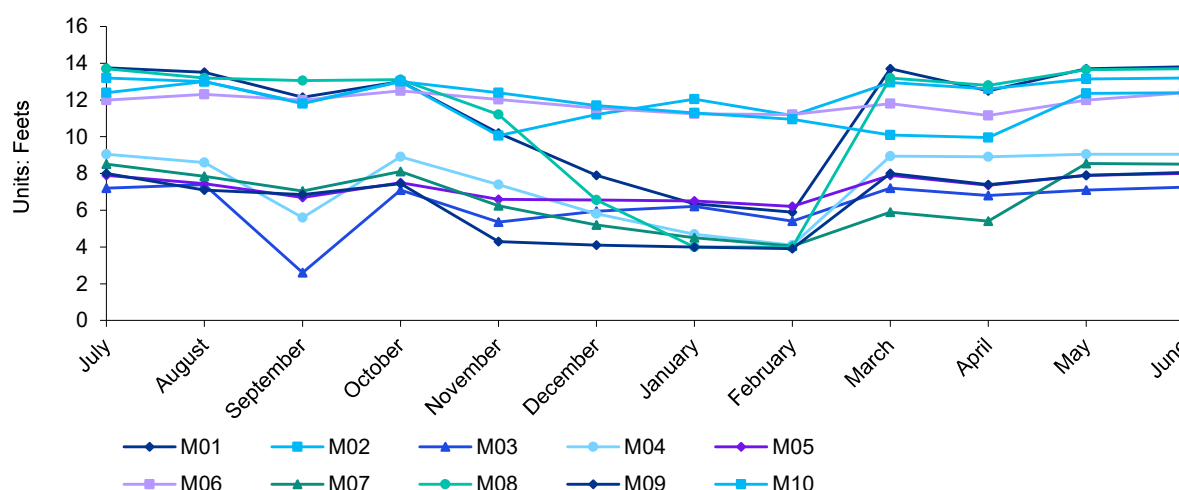
It was noted during FGD those who are extracting water from water harvesting structures are extracting water as per their agricultural need; there is no fixed pattern of extracting water from these structures.

When inquired about the quality of the water, all respondents farmers reported that there is no significant change in quality of water before and after the interventions and farmers and community members are satisfied with the water quality.



3.6. Impact on ground water

Well monitoring data - Mirje Village



The monitoring of wells in Mirje village M01–M10 from July 2023 to June 2024 shows a clear seasonal pattern consistent with typical groundwater behaviour under semi-arid conditions. Water levels decline steadily from July and reach a seasonal low in February 2024, after which they recover rapidly through March to June. This

cyclical fluctuation indicates that the aquifer remains responsive to recharge and relatively stable, returning to its initial baseline by the end of the monitoring period. Such stability suggests that current extraction levels are broadly in balance with natural recharge processes within the IWSM intervention area.

Significant differences emerge across wells, pointing to localized hydrogeological and usage conditions. Wells such as M06, M10, and M02 exhibit high stability and behave as strong aquifer indicators, reflecting consistent recharge and controlled abstraction. Conversely, M08, M09, and M01 show higher variability, indicating zones more sensitive to seasonal stress, rainfall variability, or community pumping patterns. These insights help refine IWSM planning by identifying micro-areas where targeted recharge structures, pumping regulation, or behavioural interventions may deliver higher impact.

A few statistical anomalies such as lower-than-expected values in M03 (September) and M05 (February) or a high reading in M06 (October) appear to be isolated deviations potentially linked to localized pumping or measurement timing. These outliers do not affect the overall trend but highlight the importance of consistent monitoring protocols and periodic field verification. Overall, the dataset reinforces that the IWSM program is successfully maintaining aquifer resilience, minimizing long-term depletion risks, and strengthening the community's water security through systematic monitoring and adaptive management.

This same is discussed during the FGD with beneficiary and PRI members

Groundwater level observed by the respondents

Season		Depth Foot	% Change
Summer	Pre intervention	40	21%
	Post intervention	31.6	
Monsoon	Pre intervention	5	0%
	Post intervention	5	
Winter	Pre intervention	29.2	17%
	Post intervention	24.2	

The respondents' observations show a notable improvement in groundwater availability after the integrated watershed management interventions. During summer, the water level rose significantly, with the depth reducing from 40 feet to 31.6 feet, indicating around a 21% improvement. Similarly, in winter, the depth reduced from 29.2 feet to 24.2 feet, reflecting a 17% rise in water levels. Although monsoon levels remained unchanged at 5 feet, this is expected because wells are typically near full capacity during peak rainfall. The improvements seen in the lean seasons indicate that watershed activities such as soil and water conservation measures, recharge structures, and improved infiltration have enhanced groundwater recharge and storage. Overall, the data suggests that integrated watershed management has strengthened water security by ensuring better availability of groundwater during critical non-monsoon periods.

3.7. Impact on agricultural productivity

Sown Area and Irrigated Area

The average total landholding among respondent households is 2.4 acres. Within this available land, the net sown area increased from 1.97 acres before the intervention to 2.30 acres after the intervention. This change indicates that households were able to bring a larger portion of their land under cultivation. The increase is linked to the improved water availability reported across the project area, which enabled farmers to utilise previously fallow or partially cultivated plots. The expansion in net sown area reflects a shift toward more reliable use of existing land resources, supported by watershed activities that enhanced water retention, groundwater recharge, and irrigation access. 90% of the respondents reported they now do multiple-season cropping because of increased water availability.

15%

Increase in the sown area

61%

Increase in the irrigated area

Average Total Net Sown Area - Pre intervention	Average Total Net Sown Area - Post intervention	Change	Increase in %
2.0	2.3	0.3	15%

Unit Acre

Average of total Irrigated Area: Acre - Pre intervention	Average of total Irrigated Area: Acre - Post intervention	Change	Increase in %
	2.1	0.8	61.5%

Unit Acre

The data shared by the respondents indicates a notable improvement in the average irrigated area available to beneficiary households following the intervention. The average irrigated area increased from 1.3 acres (pre-intervention) to 2.1 acres (post-intervention). This represents an expansion of 0.8 acres of land receiving assured irrigation.

The increase aligns with earlier findings on improved water availability in wells and borewells, as well as the reported enhancement in water retention across the project area. The additional irrigated area suggests that households were able to convert previously rain-fed or partially irrigated plots into reliably irrigated land, supporting more consistent agricultural activity and the possibility of diversifying or intensifying cropping practices.

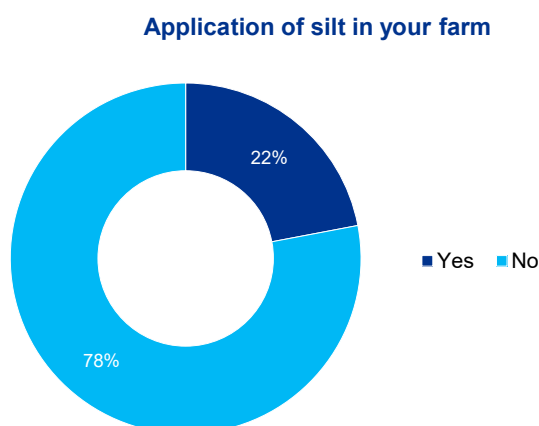
3.8. Impact on animal husbandry

Eight percent of the respondents reported that they own livestock. Among these respondents, all indicated that increased water levels have had a positive impact on their livestock. they noted that the availability of surface water has helped improve livestock hygiene. Those who own the livestock they shared that they experienced increase of 18%

Average income from livestock monthly, Pre-intervention	Average income from livestock monthly, Post-intervention	Change	% Increase
3375	4000	625	19%

Unit INR

3.9. Impact of silt application



The data indicates that 22% of respondents have applied silt to their farms, while a significant 78% have not adopted silt application. This shows that the practice is still not widely adopted among the farming community, despite its known benefits for improving soil fertility, moisture retention, and crop productivity.

A key reason for this low uptake is the cost associated with silt application, particularly expenses related to transportation, labour, and field-level spreading. For many small and marginal farmers, these costs outweigh the perceived benefits, especially when silt sources are far from their farms or when mechanized transport is required.

During the focused group discussions, farmers expressed that after two to three generations, they finally received an opportunity to apply silt to their farms through the watershed intervention. Farmers also mentioned that there is no formal record of when silt was previously applied to their land, as such practices were traditionally undocumented.

**On an average silt is spread
over
1.5
Acre per person**

Since silt was provided free of cost, many farmers proactively took the initiative to transport and spread silt on their fields. A proper mechanism and documentation process was established by the project to ensure transparent excavation and distribution of silt.

Farmers highlighted that in areas where the land was previously uncultivable or degraded, the first cycle of silt application has improved soil quality, but the crop yield is still comparatively lower than the regular village average. They believe that with repeated silt application and continued soil management, productivity will gradually improve in the coming years.

3.10. Impact on crop productivity

Crops	Pre-Intervention - Average yield per acre	Post-Intervention - Average yield per acre	Change	Increase in average productivity
Chickpeas	3	4	1	33%
Groundnuts	6	7	1	17%
Paddy	11	15	4	36%
Pulses	4	5	1	25%
Sugarcane	52	56	4	8%

Unit: quintal

The yield improvements across chickpeas, groundnuts, paddy, pulses, and sugarcane clearly indicate that the Integrated Watershed & Soil Moisture Management (IWSM) interventions played a significant role in enhancing agricultural productivity. By improving water availability, reducing runoff, and increasing soil moisture retention,

farmers were able to cultivate crops under more stable and favorable conditions. This is especially evident in crops like paddy and chickpeas, which recorded substantial increases of 36% and 33% respectively.

The interventions likely included activities such as contour bunding, farm bunds, check dams, desilting, recharge pits, and field leveling, all of which help conserve rainwater and increase infiltration. These measures improve soil structure, reduce erosion, and ensure moisture availability during critical crop growth stages. As a result, even crops grown in moisture-sensitive conditions like pulses benefited from improved root zone moisture, reflected in their 25% increase in productivity.

High-water-demand crops such as sugarcane showed a moderate 8% increase, which is still significant given the crop's already high baseline yield. The improvements suggest that IWSM structures contributed to more consistent water supply, especially during dry spells. Groundnuts also showed a 17% increase, which aligns with the crop's positive response to improved soil aeration and moisture conditions.

Overall, the results demonstrate that IWSM activities contributed not only to stabilizing yields but also to enhancing long-term soil health and water security. The consistent yield improvements across all crops indicate better resilience, reduced vulnerability to climatic variations, and increased overall agricultural productivity for the farming community.

3.11. Impact on income from agriculture

Income Pre-intervention	Income post-intervention	Change	Average Increase
1,37,020	1,78,060	32,780	30%

The increase in annual income from ₹1,37,020 (pre-intervention) to ₹1,78,060 (post-intervention) reflects a significant improvement of ₹41,040, representing an average increase of 30%. This substantial rise indicates that the interventions likely related to improved agricultural practices, enhanced resource management, or livelihood-strengthening activities had a strong positive impact on farmers' economic stability.

The 30% increase demonstrates that households not only achieved higher productivity but were also able to translate these gains into tangible financial benefits. This suggests improved market linkages, reduced input costs, better access to irrigation, or diversification of income sources, contributing to more resilient and sustainable livelihoods.

Overall, the income enhancement highlights the effectiveness of the intervention in boosting household earnings, reducing vulnerability to economic fluctuations, and supporting long-term prosperity within the community.

30% increase in income from Agriculture

As per the respondents, on average, they have observed a 28% increase in income because of the increased water availability

3.12. Impact on assets

28% of the respondents shared that they feel they have created some kind of assets because of the the increased income.



A 14% reduction in reliance on loans indicates that families are becoming more self-sufficient and less dependent on high-interest borrowing. This financial stability allows households to reallocate resources more strategically. The 10% increase in future-oriented investments shows that families are now able to channel their surplus income into resource strengthening such as improved seeds, farm equipment, livestock, or soil and water conservation activities ensuring long-term resilience.

One of the most significant impacts is seen in the 32% improvement in health and education spending, reflecting enhanced well-being and a shift towards long-term human development. With better water security and improved livelihoods, families are more capable of investing in nutrition, medical care, and children's education factors that contribute to stronger, more empowered communities.

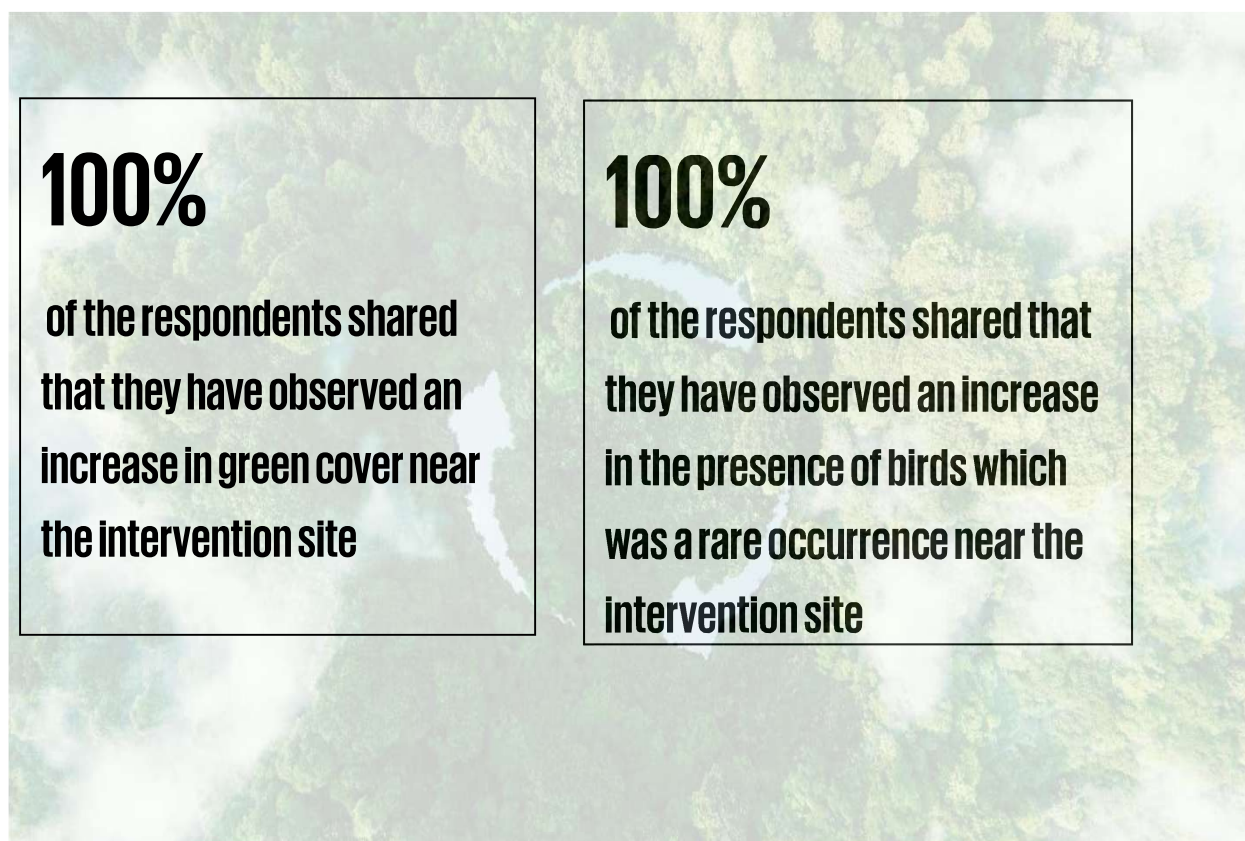
Finally, the 10% rise in assets demonstrates that IWSM interventions have enabled households to build tangible wealth over time, such as purchasing livestock, farm machinery, or improving housing. These gains collectively indicate that IWSM is not only strengthening agricultural systems but also driving a positive socio-economic transformation at the

household level.

Loans	Investment for future-resource strengthening	Income	Cashflow	Better Health & Education	Assets
14%	10%	18%	16%	32%	10%

Refer impact on environment on next page.

3.13. Impact on the environment



diversity of bird visits around the pond.

During the interaction with PRI members, it was noted that green cover has increased over the last year around the intervention site, mainly due to an increase in the water level of surface water. This has positively resulted in increased frequency of bird visits along the pond site, previously we rarely used to have so many birds at one place.

During interactions with Panchayati Raj Institution (PRI) members, it was observed that the green cover around the intervention site has increased notably over the past year. This improvement is primarily attributed to the rise in surface water levels, which has enhanced soil moisture and supported better vegetation growth in and around the watershed area.

PRI members further noted that the improved water availability has had a positive ecological effect, particularly evident in the increased frequency and

3.14. Case Study

A young and aspirational resident of the village, initially did not view agriculture as a viable secondary source of income. Employed in a nearby industrial complex, he focused primarily on his stable job and had limited interest in farming due to the poor condition of his land and lack of adequate water resources.

However, following the intervention activities specifically the application of silt on his farm land there was a significant improvement in soil quality. The land, which previously remained underutilized, became fertile and cultivable. Additionally, the availability of sufficient water further enhanced the potential for agricultural productivity.

Encouraged by these positive changes, Mr. Patne began cultivating high-value crops such as onion and tomato, which provided him with a considerable supplementary income. Motivated by the earnings and the improved condition of his farmland, he has now become more actively engaged in agriculture. He shared that after earning he has purchased his favorite mobile device, planning to invest more in farming related assets.

Today, Mr. Sanket Patne successfully balances his industrial job with farming activities. His renewed interest in agriculture not only strengthens his family's financial stability but also showcases how effective interventions can transform livelihoods and inspire youth to re-engage with farming.



Beneficiary overseeing agricultural operations on his farm

Measuring the Social Return

4. MEASURING THE SOCIAL RETURN

As explained in Chapter 2, this report has used two evaluation frameworks which are OECD-DAC and SRoI. Generally, OECD-DAC helps in gaining a qualitative understanding of the impact. On the other hand, SRoI helps organizations in evaluating changes which are being created by measuring social, environmental, and economic outcomes and providing monetary values to represent them. SRoI also helps in understanding the total value generated for every rupee invested for interventions.

There are two types of SRoI:

- Evaluative, which is conducted retrospectively and based on actual outcomes that have already taken place.
- Forecast, which predicts how much social value will be created if the activities meet their intended outcome.

For this study, both evaluative as well as forecasting SRoI has been considered. SRoI primarily involves six stages which are as follows:

Stage 1: Establishing Scope and identifying key stakeholders

Stage 2: Mapping outcomes

Stage 3: Evidencing outcomes and giving them a value

Stage 4: Establishing impact

Stage 5: Calculating the SRoI

Stage 6: Reporting

Stage 1 and Stage 2 have been discussed in-depth in Chapter 2. Further stages have been elaborated in the ensuing sections.

4.1. Evidencing Outcomes

After creating the impact map, outcome indicators were developed based on interactions with beneficiaries and other key stakeholders such as PRI members and implementation teams. Evidence of these outcomes was gathered through both primary and secondary data sources.

Quantity of Change: The quantity of change for the impact map was calculated by extrapolating responses from the sample to the entire beneficiary population. Based on the data collected, a proportionate percentage of total beneficiaries was estimated to represent the overall impact.

The details about the evidence indicators for the outcomes and the quantity of change against each indicator are provided below:

Duration of Outcome:

Some outcomes are long-term, lasting throughout a beneficiary's life, while others persist only as long as the intervention continues. For this SRoI analysis, impacts from infrastructure-related activities are considered for up to 5 years, whereas intangible interventions such as training are assumed to have an impact for 3 years. These timelines are based on the following assumptions:

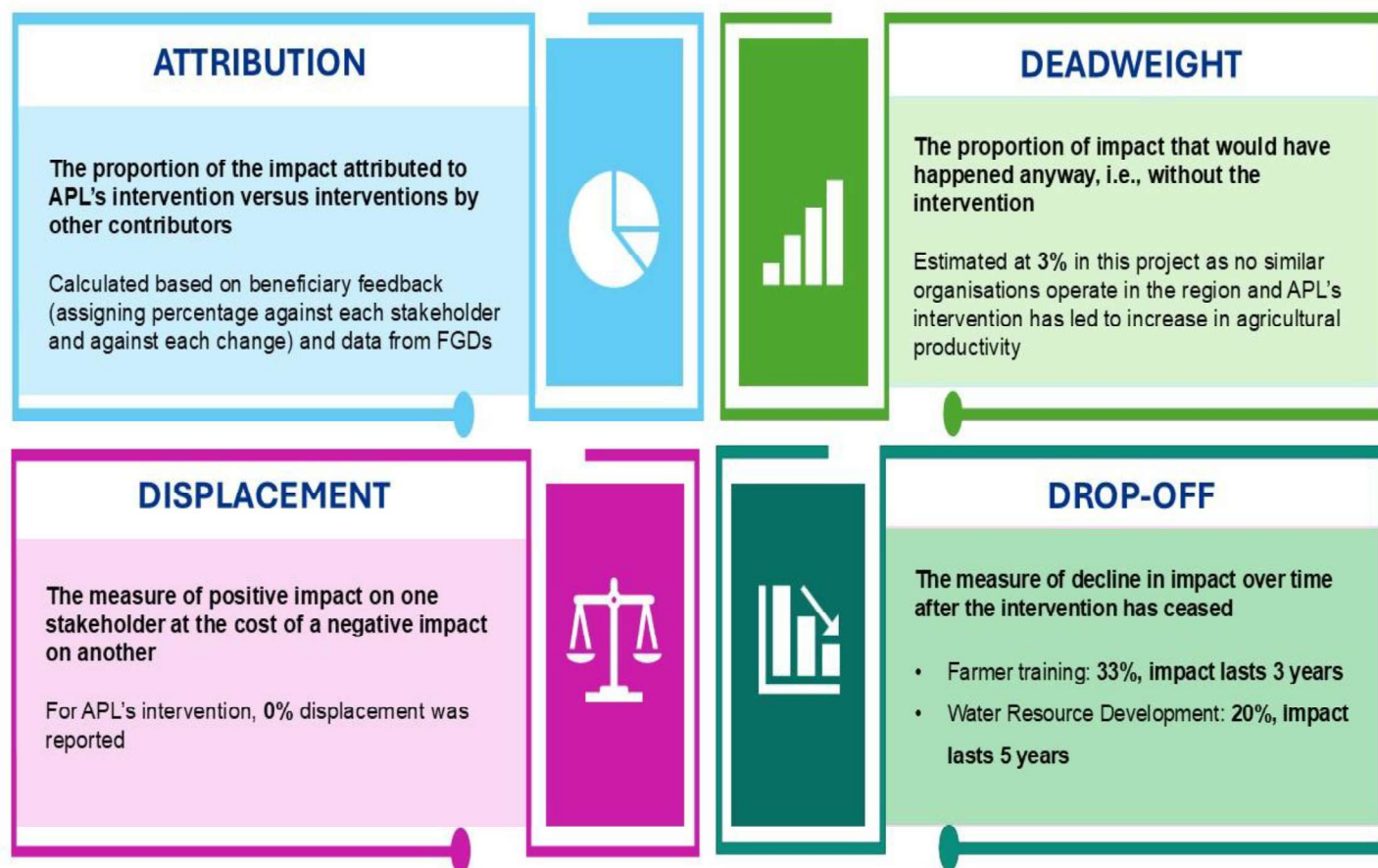
- Water resource development creates lasting effects on groundwater and surface water levels, with corresponding economic and social benefits
- Training-based interventions require periodic updates due to technological, market, and climate changes
- Based on the nature of interventions and evolving income-generating activities, beneficiary and stakeholder contributions will eventually outweigh the impacts due to initial support from APL

Financial Proxy and Value of Financial Proxy:

To assign value to outcomes, financial proxies were used, following standard practice of using market prices where possible. For intangible outcomes without direct market value, the closest comparable proxy was identified. Refer to the table for outcome-wise details.

4.2. Establishing Impacts

An important part of SROI is 'measuring impact' by accounting for attribution, deadweight, displacement, and drop-off.



4.3. Calculating Impact

$$\text{Impact} = \text{Quantity of outcome} * \text{Financial Proxy Value} * (\text{Attribution} - \text{Deadweight} - \text{Displacement} - \text{Drop-off for each year})$$

SROI is a ratio of cumulative present value for each outcome against the total investment in the project i.e., **SROI = Total NPV of social value / Total investment**

Total Input Value: For SROI calculation, inputs from APL, beneficiaries, and other stakeholders were considered, assuming all contributions collectively created the observed impact. Without any one of these inputs, the current outcomes would not have been achieved. Inputs included financial contributions from APL,

beneficiaries, and stakeholders, as well as the time invested by beneficiaries in training and exposure activities. Financial values were provided by APL, while non-financial inputs were estimated in consultation with the APL CSR team.

The below table represents the total cumulative investments from all the stakeholders towards the project from the time period 2023- 2024:

InputType	Inputdescription	Total Inputvalue(INR)
Financial inputs	CSR Funding from APL	20,250,395.00

Total **20,250,395.00**

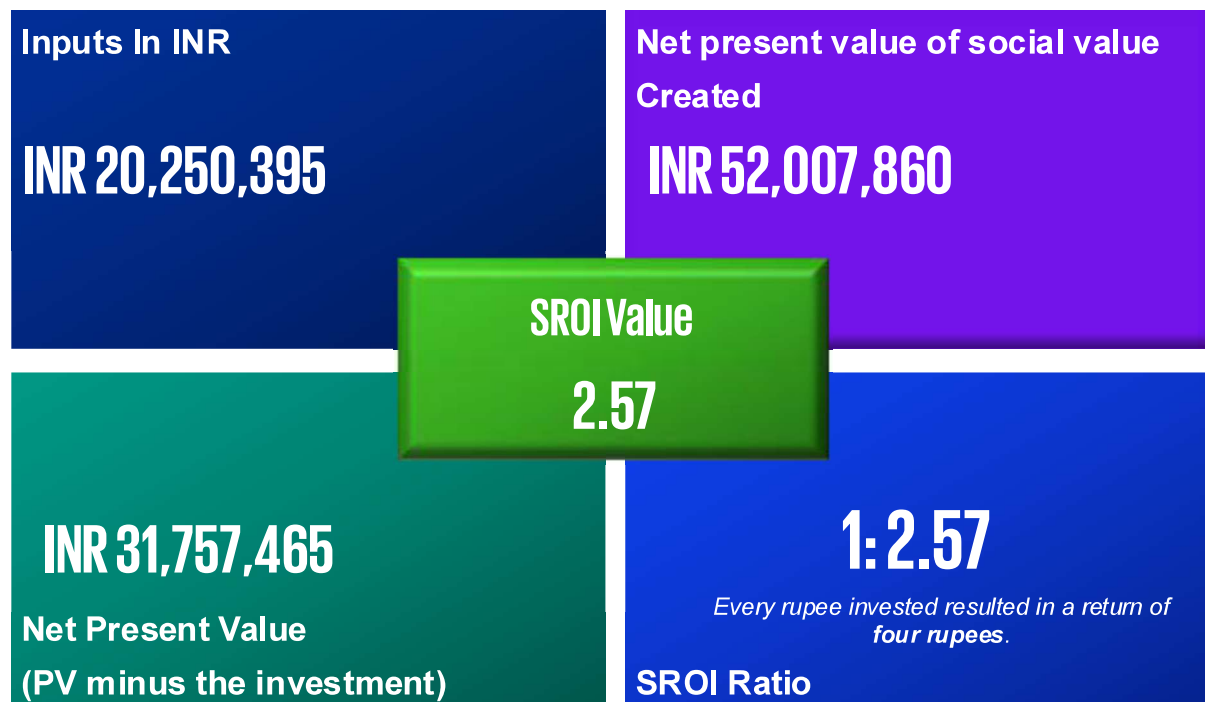
Net Present Value: The Impact Value is adjusted to reflect the Net Present Value (NPV) of the projected outcome values. This is to reflect the present-day value of benefits projected into the future.

A **discount rate of 5%** has been used for the NPV calculations.

$$\text{SROI} = \{\text{Total present value of impact} / \text{Total input}\}$$

The below table depicts the NPV evaluated as of 2025 and forecasted for 2030 (considering the duration period of 5 years for each outcome):

4.4. SROI Results



The SROI for this analysis- evaluative SROI (as on 2025) and evaluative cum forecast SROI (as on 2030) - is derived from dividing the total present value of the impacts by the total input value of the investment. This is considered because the beneficiaries who have received the support in 2025 would realise the impact for the next 5 years i.e., by 2030.

The below table shows the SROI Value and the SROI Ratio before sensitivity analysis:

For every INR 1 invested, the programme has generated social impact of INR 2.57

Sensitivity Analysis: Our calculations to arrive at the results provided in this report are relied on a variety of primary and secondary data, but the beneficiary data introduced a higher level of uncertainty. This survey was utilized to estimate the attribution, additionality of APL interventions to specific outcomes, and the duration of time the impact would last.

Sensitivity Analysis was used to test variables and assumptions to ensure that conservative estimates have been used in arriving at the SROI. For each impact area, we tested the impact of using one standard deviation above and below the average response to attribution survey questions.

With sensitivity computation, the value of the APL program can then be stated in a range. For every INR 1 invested, the social value generated is between INR 2.04 and INR 2.88.

Sr. No.	Base case Parameters	Base case SROI	Test case Parameters (Min-Max)	Test case SROI
1	Deadweight	2.57	Deadweight is 0%	2.65
			Deadweight is 8%	2.44
2	Displacement		Displacement 0%	2.57
			Displacement is 10%	2.40
3	Attribution		Attribution is 85%	2.88
			Attribution is 75%	2.25
4	Drop-off		Drop-off is 3 years	2.04
			Drop-off is 5 years	2.04

Limitations & assumptions for the SROI study

- The study is limited to the sample of beneficiaries interacted with on-ground during field visits.
- The survey conducted with sample beneficiaries is subjective in nature.
- The study is limited to the recall of the participants in the study.
- The financial proxies are limited to publicly available resources. The financial proxies are representative and based on professional judgement, but it may not be reflective of actual costs incurred due to several considerations. (Refer to Appendix B for details of financial proxies)
- The deadweight, displacement, drop off values are derived from the responses from the stakeholders.
- While information obtained from the public domain or external sources has not been verified for authenticity, accuracy, or completeness, we have obtained information, as far as possible, from sources generally considered to be reliable. However, it must be noted that some of these websites/third party sources may not be updated regularly. We assume no responsibility for the reliability and credibility of such information.

04

Way Forward

5. WAY FORWARD

The insights generated through Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) have provided a comprehensive understanding of the community's needs, existing gaps, and the evolving dynamics of water management and livelihood practices in the project geography. These interactions offered valuable perspectives from diverse stakeholders including farmers, women's, Water User Associations (WUAs), and Panchayat representatives highlighting both the achievements and the persistent challenges that influence development outcomes in the region.

Key Observations	Recommendations
Low participation of women; decisions mostly made by men.	Introduce gender-focused training and ensure women's involvement across project stages.
Higher output due to improved irrigation, but shift toward water-intensive crops like sugarcane.	Promote less water-intensive crops and establish community water-use guidelines.
WUAs inactive; members unclear about roles.	Strengthen WUA capacity through water budgeting and crop planning.
High-elevation villages (e.g., Zagalwadi) not benefiting equally; high pumping costs.	Develop elevation-specific water solutions and support installation of an efficient solar pump.

6. ANNEXURE

Financial Proxies used for SROI

Outputs	What changes?	How much?	Valuation approach (monetary)	Monetary valuation
Construction and refurbishment of Check dams/ Water Harvesting Structures	Creation of sustainable water supply through increment in availability and accessibility of water	Increase in water harvesting capacity (Quantum of Water Potential created or Water Harvested in Cubic Metre)	Groundwater abstraction charges for Drinking and Domestic use (Central Water Commission) per cubic metre	2.00
		Increased availability of water for irrigation - surface water from WHS (Number of farmers x Avg increase in Irrigated land)	Irrigation charges in Maharashtra	800.00
		Increased availability of water in wells / borewells (number of farmers/community members x Avg increase in availability of water in months)	Average HH requires 220 LPCD daily and using it for a months gets us the water requirement = 6600/HH/month Charges for purchasing water (One water tanker of 4000 litre capacity) - INR 200/- in Maharashtra	400.00
	Increased agriculture production due to increment in availability of water	Increase in availability of Net Sown Area (in Ha) (Number of farmers x Avg increase per farmer)	Average increase in Net sown area indicated by respondents (Ha) Avg Yield of Rice in Satara district in Fy 2024-25 = 1026 kg/ha MSP of Paddy in Maharashtra 2369/Q	35535.00
		Increase in agriculture produce (Number of farmers x Avg increase in yield in the year)	Average increase in Yield indicated by respondents (Quintals) MSP of Paddy in Maharashtra - 2369/Q	2369.00
Creation of employment opportunities	Availability of increased labour opportunities locally (own or nearby villages) due to reduced migration	Reduction in migration (seasonal for labour work) (number of members reporting instances of reduced migration x days of work in WHS MGNREGA and/or agriculture)	3 months of Summer season and 8 days of work/month basis MGNREGA gives a total of 24 days of work Minimum wage paid under MGNREGA in FY 2022-23	312.00
Extended impact on the environment	Increased green cover due to access to water for extended period/ throughout the year due to WHS	Increased green cover canal/ river due to WHS construction for extended period/ throughout the year (in Metres)	Cost of Sowing/ Dribbling of seeds of grass, trees and shrubs under MGNREGA (cost per metre)	0.58
	Improved soil health due to water availability	Farmers using ploughing to dig lower layer of soil	Per acre ploughing rates for farmers	700.00
	Improved bio-diversity due to availability of water for extended period / throughout the year... (birds/animals from nearby area using the water during summer)	Community members enjoying view of more birds and animals with pleasant environment	Cost of visiting animal zoo/ bird zoo	20.00

IMPACT ASSESSMENT OF BEAUTIFUL HOMES ACADEMY



JANUARY 2026

Table of Contents

CHAPTER 01. EXECUTIVE SUMMARY	3
PROJECT OVERVIEW AND RATIONALE	3
IMPACT ASSESSMENT – KEY TAKEAWAYS AND RECOMMENDATIONS	3
CHAPTER 02. INTRODUCTION	7
BACKGROUND	7
ABOUT ASIAN PAINTS LIMITED	7
ASIAN PAINTS' CSR OVERVIEW	7
PROGRAM DESCRIPTION OF THE BEAUTIFUL HOMES ACADEMY	8
CHAPTER 03. RESEARCH METHODOLOGY	10
OBJECTIVE	10
DESIGN SNAPSHOT	10
RESEARCH FRAMEWORK (OECD DAC)	10
SAMPLING FRAMEWORK AND DATA COLLECTION	10
CHAPTER 04 PROGRAM INSIGHTS.....	12
PROGRAM RELEVANCE	14
PROGRAM EFFECTIVENESS.....	17
PROGRAM IMPACT	21
PROGRAM SUSTAINABILITY	28
OECD PARAMETER SCORES AND THEIR RATIONALE	30
CHAPTER 05. RECOMMENDATIONS AND THE WAY FORWARD	32
CONCLUSION	33
PHOTO GALLERY	34
ANNEXURES.....	35

Chapter 01. Executive Summary

PROJECT OVERVIEW AND RATIONALE

Asian Paints Limited implemented the skill development program to train painters in Décor Advisor (DA), Interior Designer Finishes (IDF) and Health and Safety (H&S) courses through the Beautiful Homes Academy (BHA) across the States and Union Territories in India during the financial year 2024-25.

Program at a glance

Implementation Organisation	Asian Paints Limited (Beautiful Homes Academy)
Beneficiaries	2,87,000 participants (workers in the unorganised sector)
Project locations	Spread across all 28 States and 6 Union Territories in India
CSR Budget	₹ 64.8 Crores
Implementation period	April 2024 to March 2025

Need for the project: The Beautiful Homes Academy (BHA) program, targeted at workers in the unorganised sector, aligns with Corporate Social Responsibility (CSR) provisions under Section 135 of the Companies Act, 2013. The program aims at ensuring inclusive and equitable quality education/skills training for all.

India's rapid urbanisation and rising demand for skilled trades have created a critical workforce gap, with 91 million construction workers required but only 50 million available, a shortfall of 45%¹. Despite this demand, vocational education often lacks practical exposure, leaving youth underprepared for trades like painting and plumbing. The Beautiful Homes Academy addresses this need by providing hands-on training, certification, and career pathways, equipping participants with employable skills. The program strengthens employability, bridges industry-readiness gaps, and advances broader goals of economic empowerment and sustainable development.

IMPACT ASSESSMENT – KEY TAKEAWAYS AND RECOMMENDATIONS

Sattva Media and Consulting Private Limited (Sattva) undertook an impact assessment study using the Organisation for Economic Cooperation and Development (OECD) Development Assistance Committee (DAC) framework, focusing on **four evaluation criteria: relevance, effectiveness, impact, and sustainability**. Key highlights (including participant demographics and

program findings) from the quantitative survey of 218 participants, in-depth interviews with trainers and the manager of the Beautiful Homes Academy are as follows.

Demographic profile of participants (n= 218)

Gender predominance in the trade: The course participants were **males** (98%) and 90% of the participants were **married**.

Participants opt for training after work experience: 70% of the participants were **contractors** who hired daily wage earners and fixed contract painters/workers. 92% of the participants had **over 5 years of work experience as painters**.

Program Relevance (Score was rated good at 4.3/5)

Key insights

Need to upgrade skills, relevance in day-to-day jobs and need in the local context: 94% felt there was a need to upgrade their techniques and skills before they joined the courses. 62% found the training very relevant in their day-to-day painting jobs. 94% stated that the training was appropriate to the demands of their local area.

Modules fulfil market demand and help professionalise the trade: Modules were designed by trainers to fulfil current and emerging market needs for new types of textures and finishes, and enhancement of employability. The courses addressed the need for professionalisation of the painting trade with structured training, which was non-existent earlier.

Recommendation

Tiered learning tracks: While the overall program relevance was rated high, tiered learning tracks would help improve the program value for participants. A pre-admission assessment of participants would help decide the course level at which they need to be enrolled and also design courses based on their existing knowledge level.

Program Effectiveness (Score was rated good at 4.4/5)

Key insights

Strong training delivery, positive review of trainers: 97% of the participants found the training infrastructure (space, tools, demonstration material, and lighting) adequate. 80% found their trainers knowledgeable, and 92% felt the training duration was sufficient and the modules were completed on time.

Prioritised practical learning: The participants highlighted how the courses emphasised hands-on learning. They mastered customer-facing visual tools and advanced their expertise by working directly on full panels beyond sample boards.

Improved confidence and shift from execution to advisory roles: An improvement in learning and behaviour change with newly acquired skills was observed. The shift from executing painting jobs to advising customers was noteworthy.

Recommendation

Reinforcement of safety compliance: While overall program effectiveness was rated high, there was a need to reinforce health and safety compliance and ensure long-term behavioural change.

Program Impact (Score was rated good at 4.0/5)

Key insights

Improvement in incomes and financial stability: 90% of the participants reported financial gains (improved incomes and household stability) after the training. However, 57% reported a substantive increase in the number of job orders after training.

Improved social status and self-assurance: 83% felt more confident and a sense of pride in their work after the training. 79% felt more respected and valued after they joined the training and got more work.

More dignity for painters: Empirical observations highlighted reduced stigma and improved dignity post-training. Enhanced identity of the participants was a core outcome.

Certification builds credibility: The accreditation was targeted at creating more credibility, and participants were getting more customer referrals.

Recommendation

Long-term tracking of income of participants: Income gains through skill development for participants would be better tracked if one observes the impact over a longer monitoring period.

Extended monitoring of safety practices: A more extended tracking of the participants would help assess the practical learning and adoption of safety practices.

Program Sustainability
(Score was rated moderate at 3.6/5)

Key insights

Certification courses create demand and motivation to learn: Post-training, 85% of the participants demonstrated interest in joining refresher and advanced courses, 76% of the participants applied their newly learnt skills/techniques at work, and 94% felt that BHA certification was useful, indicating sustained demand and motivation to learn and upskill.

Scope to improve peer and mentor engagement: Despite an ongoing engagement, only 60% of the participants reported staying regularly connected with peers and trainers after their training ended.

Growing demand for premium finishes, curriculum upgrades: Secondary research showed that demand for skilled services was strong and growing (especially in advanced textures and finishes). The program's sustainability was reinforced through annual course updates and high participant retention.

Recommendation

Strengthen post-training alumni network: To keep participants engaged and continue with their learning/upskilling journey, alumni networks need to be strengthened to sustain learning outcomes.

Reinforce long-term safety practices: To ensure adoption of safety practices, the learnings need to be reinforced through multiple outreach channels.

Chapter 02. Introduction

BACKGROUND

India's vocational skills landscape is undergoing a pivotal transformation, with trades such as painting, plumbing, and interior design emerging as high-demand jobs in urban and semi-urban markets, fuelled by rapid urbanisation, lifestyle shifts, and demand for housing with better aesthetics, sanitation and infrastructure. According to the Construction Skill Development Council of India (CSDCI), formed under the National Skill Development Corporation (NSDC), the Indian states require an estimated 91 million construction workers, of which only 50 million were available, leaving a gap of 45%². Despite this huge demand, a significant gap persists between industry needs and workforce readiness. The shortfall in construction and design services highlights the need for upskilling the workforce by giving appropriate practical skills in trades like painting and plumbing.

Technical education in India often lacks practical exposure, leading to low employability among youth entering trades such as painting and plumbing. Programs by the Beautiful Homes Academy address this gap by offering hands-on training, certification, and career pathways in high-growth sectors. By equipping participants with both foundational and advanced skills, the Academy not only enhances individual employability but also contributes to broader goals of economic empowerment and sustainable development.

Project objective: To develop employable skills among workers in the unorganised sector.

Target beneficiaries: Workers in the unorganised sector (workers such as painters, applicators, and carpenters)

ABOUT ASIAN PAINTS LIMITED

Asian Paints Limited is an Indian multinational paint company, engaged in the business of manufacturing, selling and distributing paints, coatings, products related to home décor, bath fittings and providing related services with operations in 14 countries. Through its CSR, Asian Paints supports projects in education, skill development, environment conservation, health & hygiene, water, and disaster relief.

ASIAN PAINTS' CSR OVERVIEW

Asian Paints Limited undertakes CSR initiatives aimed at creating measurable and sustainable impact in the communities where it operates, with a focus on livelihood enhancement, vocational skilling, water conservation, health and hygiene, and disaster response. All programs are governed to ensure compliance with Schedule VII of the Companies Act, 2013.

² [20220908_CSDCI Skilling_Insights report_vprint](#)

PROGRAM DESCRIPTION OF THE BEAUTIFUL HOMES ACADEMY

The Beautiful Homes Academy (BHA)

The Beautiful Homes Academy, established by Asian Paints Limited, is a skill development initiative dedicated to enhancing employability and livelihoods by providing vocational and skill-based training to painters, applicators, carpenters, and other workers in the unorganised sector. The Academy offers a comprehensive curriculum that spans technical expertise such as interior and exterior textures, mechanisation, wallpaper application, wood finishes, wall painting, waterproofing, metal work, and sanitisation, as well as essential soft skills to support holistic professional development.

Program Offerings

The table given below gives a snapshot of the course content and targeted learning outcomes of each of the three courses (Décor Advisor, Health and Safety, and Interior Designer Finishes) offered by The Beautiful Homes Academy to the course participants.

Course name	Key content	Core outcomes
Décor Advisor (DA)	Fundamentals: wall finishes, textures, lighting Colour theory & mood/space application Lighting types & benefits Pitching method: rapport, requirement analysis, suggestions Upselling/cross-selling: wallpapers, textures, finishes, emulsions Tools: Colour App, WhatsApp chatbot Business growth: 4M formula	- Customer-focused consultation - Enhanced engagement via visualisation tools - Upselling/cross-selling for premium upgrades - Stronger design & colour knowledge - Effective pitching techniques
Health and Safety	- Importance of workplace safety - Common hazards: chemicals, dust, sharp objects, working at height - PPE essentials: helmet, mask, gloves, eyewear, harness, boots - Safety at heights: harness, scaffolding, checklists - Risk management: identify–assess–prevent - First aid kit use & site cleaning - Personal health & hygiene practices	- Adoption of safe work practices - Risk awareness & prevention (e.g., harness, scaffolding, wiring) - Proper use of PPE & first aid kits - Improved personal Health & hygiene

Interior Designer Finishes (IDF)	Basic: Special effect paints vs emulsions, surface prep, application tools, effects & patterns (sponging, ragging, Ikkat, bamboo, fern, shale, etc.) Intermediate: Finishes (stucco, velvet, safari, geometric), Lux range (mineral, moonwalk, dazzle, venetian peacock), premium patterns Advanced: International designer collections, ironic finish, designer plaster concrete	- Customer upgrade from emulsions to textures - Ability to charge premium prices - Specialist skills in texture finishes - Moving beyond one-wall highlights - Strong customer pitch: durability, dust resistance, easy maintenance
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Identifying participants and mode of program delivery: Participants were identified mainly through market and dealer visits. In many regions, the painters and contractors directly reached out to the Academy for training.

The training was offered through physical (in-person) Fixed Colour Academy (FCA) and Mobile Colour Academy (MCA). While FCA was a fixed set-up, the Mobile Colour Academy (MCA) was a mobile training set-up that provided courses by visiting multiple towns. Sessions were conducted during the day as well as after work hours in the evenings to facilitate the participation of workers engaged in day jobs.

Chapter 03. Research Methodology

This section outlines the design and approach to impact assessment undertaken by Sattva, ensuring rigour, relevance, and alignment with global evaluation standards. The study incorporated a descriptive cross-sectional design from a retrospective perspective, and data were collected from a representative population to reflect the impact and outcomes.

OBJECTIVE

The impact assessment examined the relevance, effectiveness, impact, and sustainability of the vocational training program in line with the OECD Development Assistance Committee (DAC) framework.

DESIGN SNAPSHOT

Sattva adopted a mixed methods approach, combining insights from multiple stakeholders for a 360-degree assessment. The study analysed the program's success in skill development and collated insights on outcomes and experiences. Quantitative insights were gathered through a survey of participants who were offered vocational training at the Beautiful Homes Academy. The qualitative insights were collected through in-depth interviews with the trainers and the manager (at BHA).

RESEARCH FRAMEWORK (OECD DAC)

Sattva used the undermentioned principles of the OECD DAC framework and framed the key areas of enquiry and corresponding indicators for the impact assessment study. The key outputs and outcomes analysed covered program relevance, effectiveness, impact and sustainability as represented in the following infographic.

SAMPLING FRAMEWORK AND DATA COLLECTION

The study employed purposive sampling that covered participants who could be reached and were willing to participate in the study. The participants included those who had completed either of the three courses (Décor Advisor, Interior Designer Finishes, and Health & Safety courses). Of the 2,87,000 participants, 218 (from 15 locations) were mobilised to participate in the survey to provide valuable insights into program outcomes.

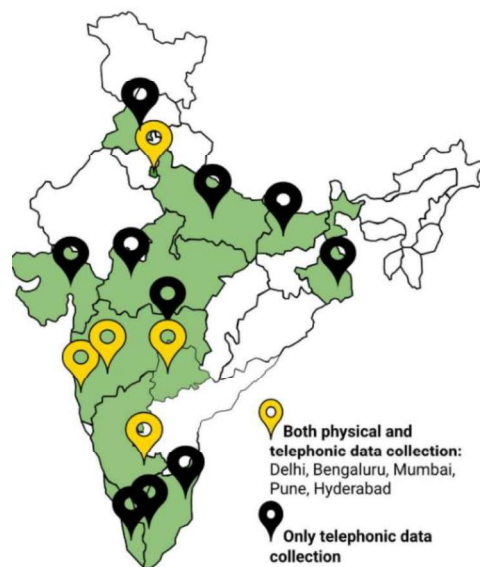


Sampling and mode of data collection

Data type	Stakeholder	Mode of data collection	No. of participants
Quantitative	Participants	Survey	218
Qualitative	Trainers (BHA)	In-depth interview	3
Qualitative	Manager (BHA)	In-depth interview	1

The states were chosen using purposive sampling, ensuring inclusion of beneficiaries who had completed the Décor Advisor, Interior Designer Finishes, and Health & Safety courses. Out of 218 participants, 164 answered telephonically and 54 in person, while the trainers and the manager responded online. The fifteen locations selected were as follows:

Ahmedabad	Kochi
Bengaluru	Kolkata
Chandigarh	Lucknow
Chennai	Mumbai
Coimbatore	Nagpur
Delhi	Patna
Hyderabad	Pune
Indore	



Chapter 04 Program Insights

The paragraphs below capture the demographics and program insights across the OECD impact assessment parameters for the Beautiful Homes Academy program.

DEMOGRAPHICS

The text box below highlights the demographic profile of the course participants surveyed.

Key takeaways from participants' demographic profile

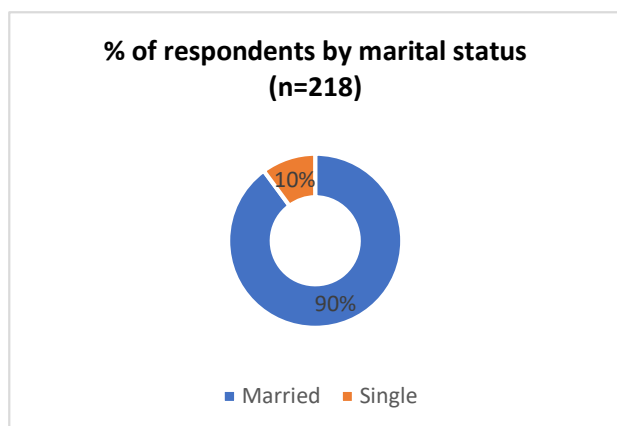
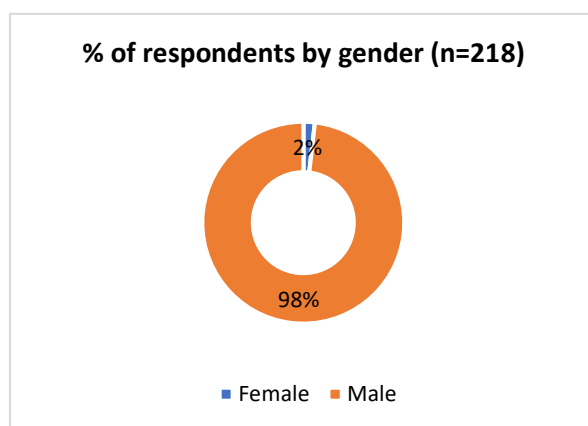
Gender: The courses were undertaken by predominantly married males who had families to support.

Occupation: The course participants were mostly contractors (70%) who hired both daily wage and contractual labourers in almost equal proportion.

Experienced participants: The cohort of participants mainly had over 5 years of painting experience, suggesting that a majority were looking to upgrade their skills and increase their income potential by aligning with the in-demand market skills. None of the participants was a fresh entrant into the trade. 92% of the participants had over 5 years of painting experience, while the remaining had experience between 1 and 5 years.

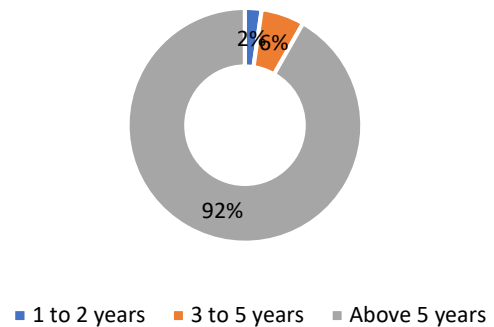
Course-wise participants: Over 44% of the participants completed the Interior Designer Finishes course, while 35% had enrolled in the Décor Advisor, and 21% in the Health and Safety module.

Gender and marital status: Of the total 218 survey participants, 98% were males, and 90% were married. (As depicted in the graphs below.)

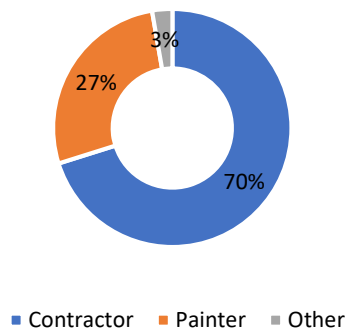


Occupation, work experience and team composition: 70% of the participants represented contractors who hired painters and workers to deliver contractual painting assignments, and 27% were painters who offered their services to contractors or took up jobs individually. Of the 70% contractors (153 participants), 35% engaged contractual as well as daily wage-earning workers. 32% only hired daily wage-earning workers, and the remaining 33% engaged workers on fixed contracts. 92% of the 218 participants had the experience of over 5 years, while 6% reported painting for 3 to 5 years in the past.

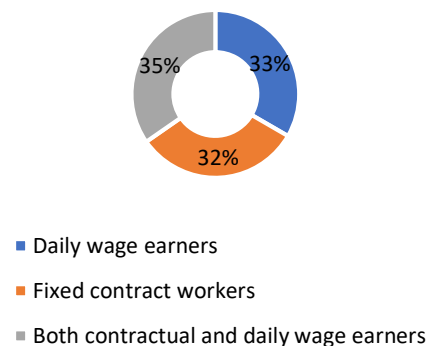
% of respondents by work experience as painters (n=218)



% of respondents by occupation (n=218)



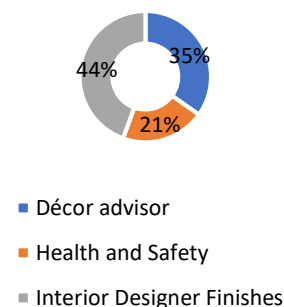
% of contractors by team composition (n=153*)



(* Note: The graph above, on the right, includes only 153 participants who were contractors, i.e., 70% of the total 218 participants.)

Participants by courses undertaken: The survey sample reflected a balanced representation of participants across all three courses at the Beautiful Homes Academy: 35% completed Décor Advisor (DA), 21% Health and Safety, and 44% Interior Designer Finishes (IDF).

% of respondents by course undertaken (n=218)



PROGRAM RELEVANCE

The Beautiful Homes Academy was the much-needed initiative that professionalised the trade of painting and addressed the long-standing gaps in vocational training, enhancing employability and income generation. The following blue textbox highlights the key takeaways on program relevance.

Program Relevance - Key Takeaways (Score 4.3/5)

Met the need for upskilling: An overwhelming 94% of participants acknowledged the need to upgrade their techniques and skills before joining the courses. The program clearly responded to the demand for structured learning in a sector where most workers had previously relied on informal apprenticeships.

Practical in daily work: The training modules were not merely theoretical add-ons but directly applicable to everyday painting assignments, translating to improvements in work quality. 62% of participants found the training very relevant to their day-to-day jobs, while another 33% found it somewhat relevant.

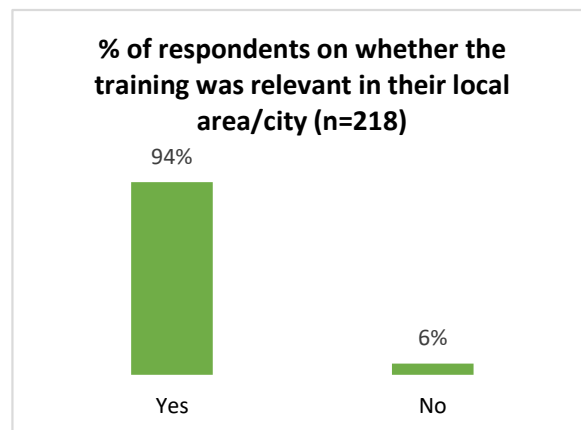
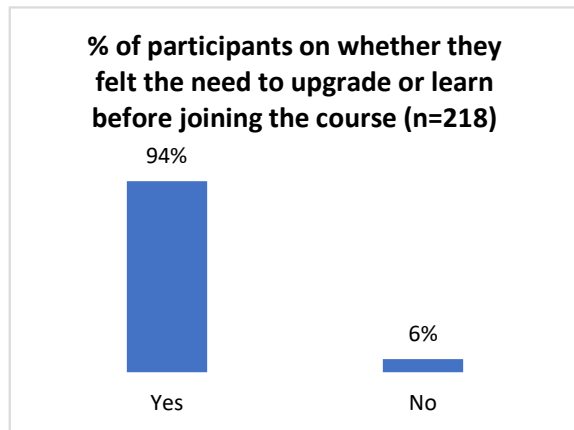
Aligned with local context: The modules were aligned to the needs of the local market context and sensitivity, and the curriculum included textures, finishes and chemical application methods. 94% of participants confirmed that the training was appropriate to their local area.

Professionalising the trade: According to secondary data, painting, unlike other trades, lacked formal vocational pathways. BHA filled this gap by offering structured theory and practice, equipping workers with formal skills that enhanced employability and elevated painting into a recognised skilled profession.

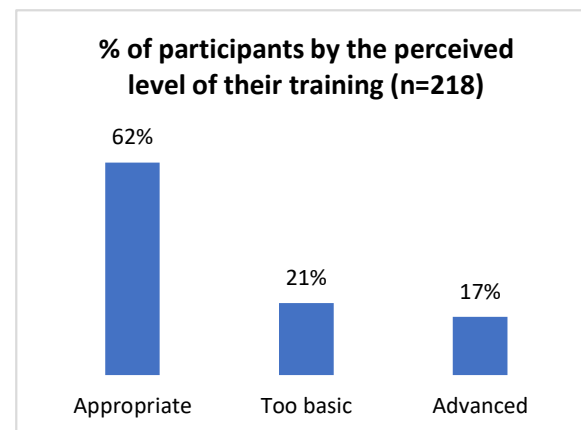
Appropriate training level: The majority of participants (62%) found the training level appropriate to their existing skills, and 17% perceived it as advanced and 21% as too basic.

Fulfilling participants' aspirations: Over 90% of the participants enrolled in the courses to enhance knowledge and acquire new skills, 50% to improve income-earning potential, and 37% to adapt to evolving market demands. These motivations highlighted the program's relevance in empowering workers with professional growth opportunities while strengthening their economic resilience.

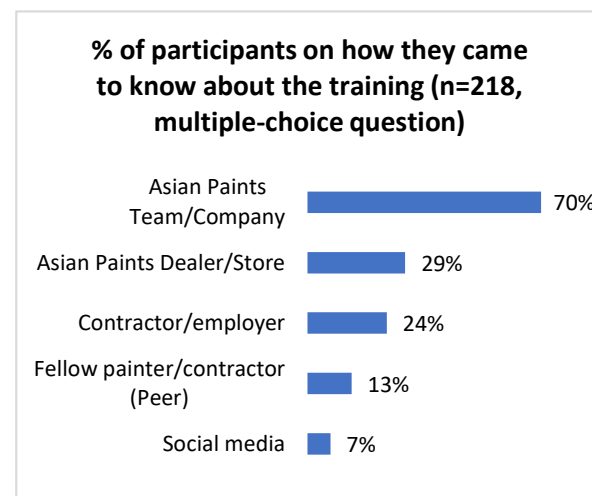
Need for upskilling, utility for day-to-day work and relevance in local areas: 94% of the participants acknowledged the need to upgrade their techniques and skills before they joined the courses, 62% found the training very relevant, and 33% somewhat relevant in their day-to-day painting jobs. 94% of the participants stated that the training was appropriate to the needs of their local area/city. It was noted that painting, unlike other trades, lacked formal vocational training. Most contractors learned informally through apprenticeships. The program's relevance lies in filling this gap with structured theory and practice, including chemical knowledge and application methods, thereby professionalising painting as a skilled trade.



Appropriateness of the level of training: The training level was perceived as appropriate by 62% of the participants, advanced by 17% and too basic by 21%. A majority found the training level in sync with their existing skills.

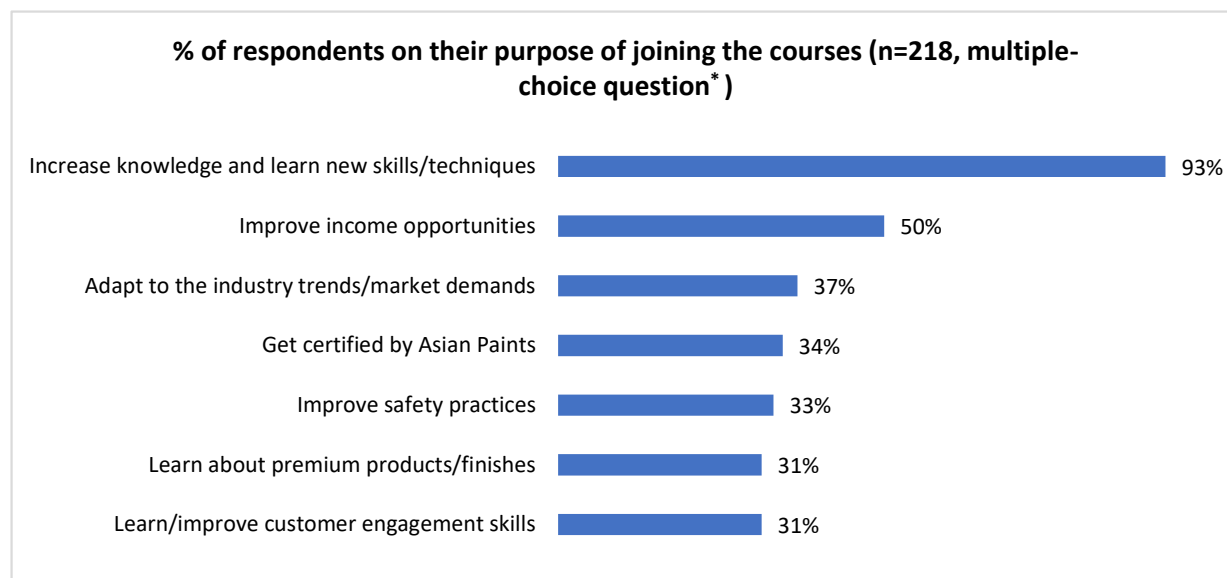


Program outreach: When questioned how they came to know about the courses (in a multiple-choice question, where participants could choose numerous options), 70% of the participants had been mobilised by the Asian Paints team, 29% said the Asian Paints Dealers/stores reached out, and 24% came to know through their contractor/employer. Asian Paints' mobilisation strategy has been central to program uptake. This multi-channel outreach ensured inclusivity and broad awareness across the industry.



Outreach channels: 70% of the survey participants had heard about the program from the Asian Paints field teams, showing their influential on-ground presence and being the primary mobiliser. In the qualitative interviews, the trainers also reported using multiple channels, dealers, unions, and community outreach, which aligned well with the CSR team's goal of

Purpose of joining the training: Participants' primary motivations for joining the training were to enhance knowledge and acquire new painting skills (over 90%), improve income-earning potential (50%), and adapt to evolving market demands (37%). These were highlighted in a multiple-choice question where participants could choose more than one option.



(* Note: In the multiple-choice questions, the participants could choose more than one option, hence the percentages do not add up to 100%.)

Content relevance: Training content closely addressed on-ground needs, reflected in a 94% relevance rating by the participants. The course modules were aligned to market demand, particularly in textures and finishes and the program targeted filling a long-standing gap in formal painting training.

PROGRAM EFFECTIVENESS

The blue textbox below highlights the key takeaways related to the program's effectiveness and delivery.

Program Effectiveness - Key Takeaways (Score: 4.4/5 - Good)

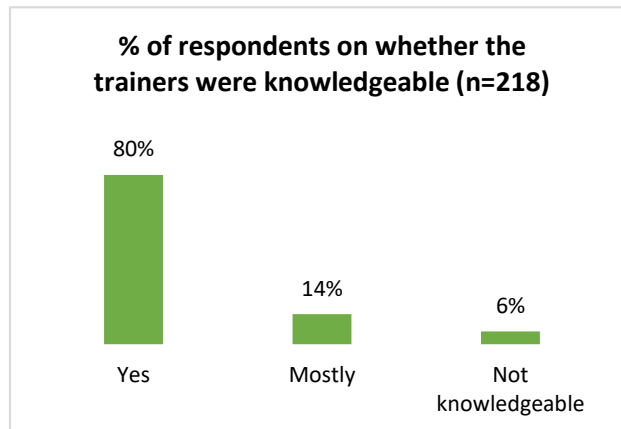
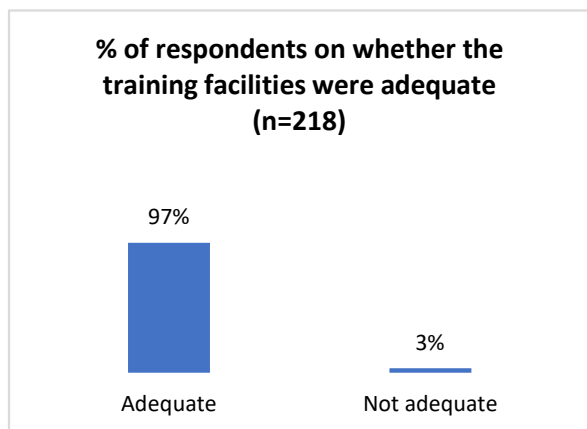
Strong infrastructure and expert trainers: The program delivered training through robust infrastructure, with 97% affirming the adequacy of facilities and 80% recognising trainer expertise.

Safety practices: Safety practices were integral to the curriculum. 94% of the Health and Safety course participants confirmed that trainers not only demonstrated correct use of harnesses, scaffolding, and tools but also ensured participants practised these techniques physically. Unsafe practices were corrected on-site and there was a need for further reinforcement of safety compliance.

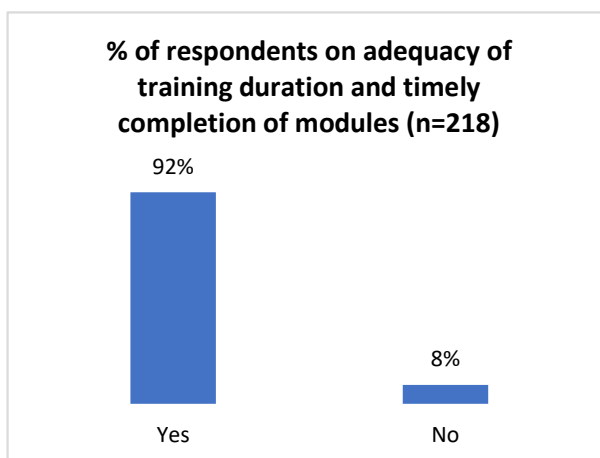
Prioritising practical learning: In the Décor Advisor course, 82% of participants learned to use visual tools such as the Asian Paints Colour application and WhatsApp chatbot to help customers visualise finishes. In the Interior Designer Finishes (IDF) course, 84% practised on full panels, moving beyond sample boards to gain advanced finishing expertise.

Courses were strongly endorsed: The program reported a near-universal endorsement, with 99% of participants stating they would recommend BHA courses. Key reasons included improved work quality (86%), better career prospects (53%), and enhanced competitiveness (42%). Many workers returned for advanced modules, substantiating confidence in the program.

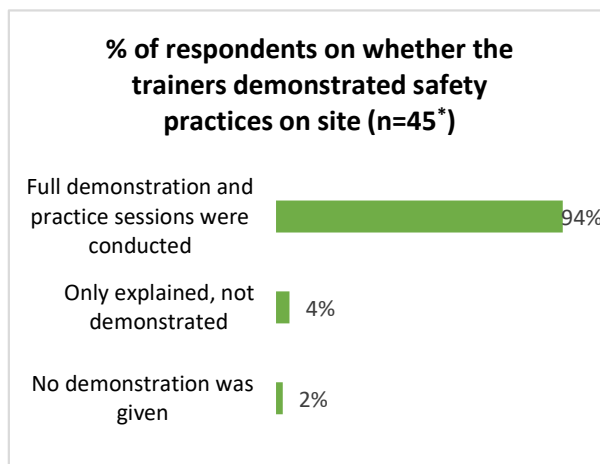
Holistic outcomes for participants: 78% of the participants reported better knowledge and learning, 51% associating training with improved confidence at work, 50% feeling their quality of work improved, and over 40% noted enhanced technical skills and income gains. There was a shift in worker roles from executing contracts to confidently advising customers and pitching product upgrades, signalling the professional recognition of the trade.



Adequacy of training infrastructure, trainers' expertise, and course duration: 97% of the 218 participants stated that the training infrastructure in terms of space, tools, demonstration material, and lighting was adequate. 80% also noted that the trainers were knowledgeable about their subject. The trainers were typically from chemistry or science backgrounds. They brought credibility by understanding product chemistry, while experienced painters ensured practical delivery. Annual refresher courses keep trainers updated on evolving processes, and local observations of malpractice help identify gaps. Immediate post-training feedback further strengthens the relevance and quality of both theoretical and practical instruction.

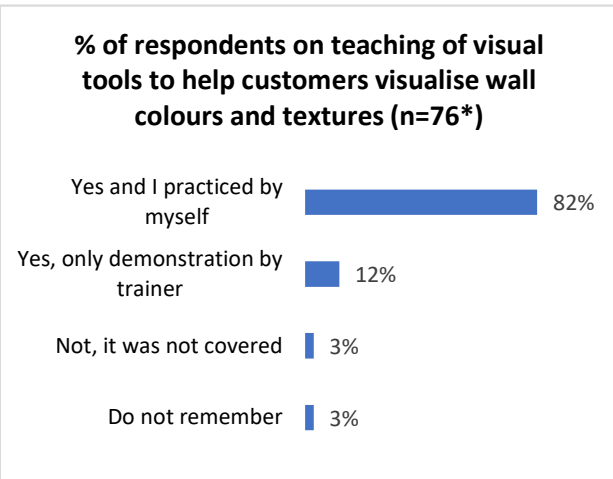


Outcomes after the Health & Safety training: Participants were taught basic safety practices. Out of 218, 45 participants underwent training in Health and Safety modules. When asked whether the trainer demonstrated safety practices on site, such as correctly wearing a safety harness, using scaffolding, or handling tools safely, 94% reported that the trainer demonstrated fully and made participants practice safety rules physically.



(* Note: The graph above represents only the 45 participants of the Health & Safety course.)

Safety demonstrations: Safety training was consistently integrated across batches, with 94% of participants receiving full demonstrations on harness use, scaffolding, and safe handling. Trainers reinforced learning through practical corrections and observed the adoption of safety practices during site visits under the program.



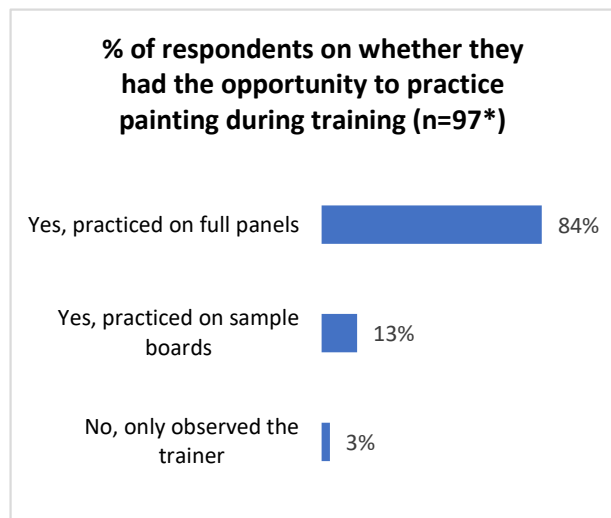
Outcomes after the Décor Advisor training: Of the 76 participants who had enrolled in the Décor Advisor training, 82% stated that they learnt visual tools like the Asian Paints Colour application or WhatsApp chatbot to help customers visualise wall colours and textures.

(* Note: The graph on the left represents 76 participants of the Décor Advisor course.)

Outcomes after the Interior Designer Finishes (IDF) training: Of the 97 participants who had enrolled in the IDF course, 84% stated they had the opportunity to practice on full panels, whereas 13% practised on sample boards.

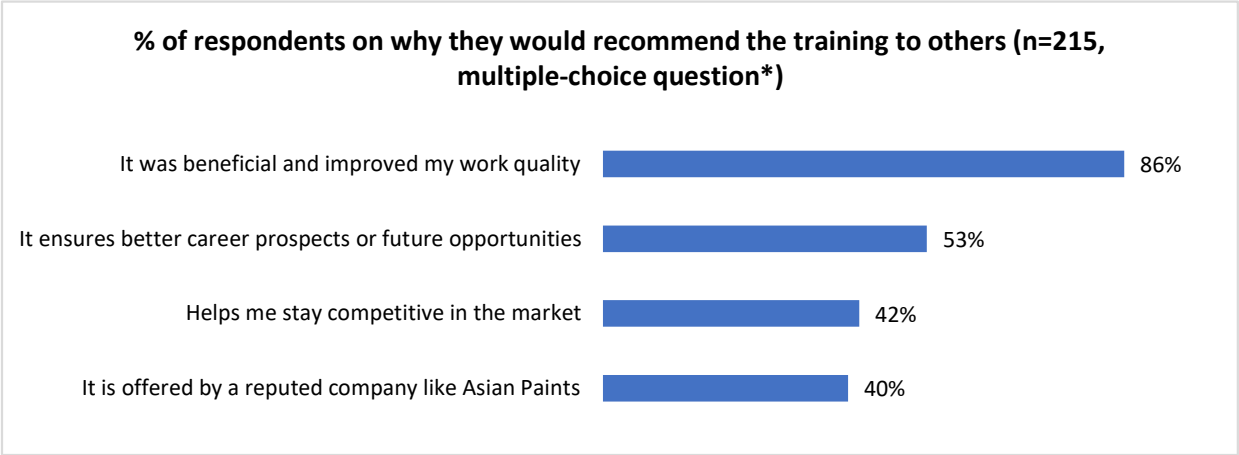
Texture practice: Texture skills were taught effectively, with 84% of the IDF course participants practicing on full panels. In interviews, the trainers emphasized the module's 80% practical design, noting textures demand precision, control, and repetition. Routine assessments highlighted a need for continued practice beyond guided exposure to achieve proficiency.

(* Note: The graph on the right represents 97 participants of the Interior Designer Finishes course.)



Participants endorse the program to others: When questioned about whether they would recommend the courses to other participants, 99% of the participants (215) stated they would recommend it. In a multiple-choice question on why they would do so, 86% of the 215 participants

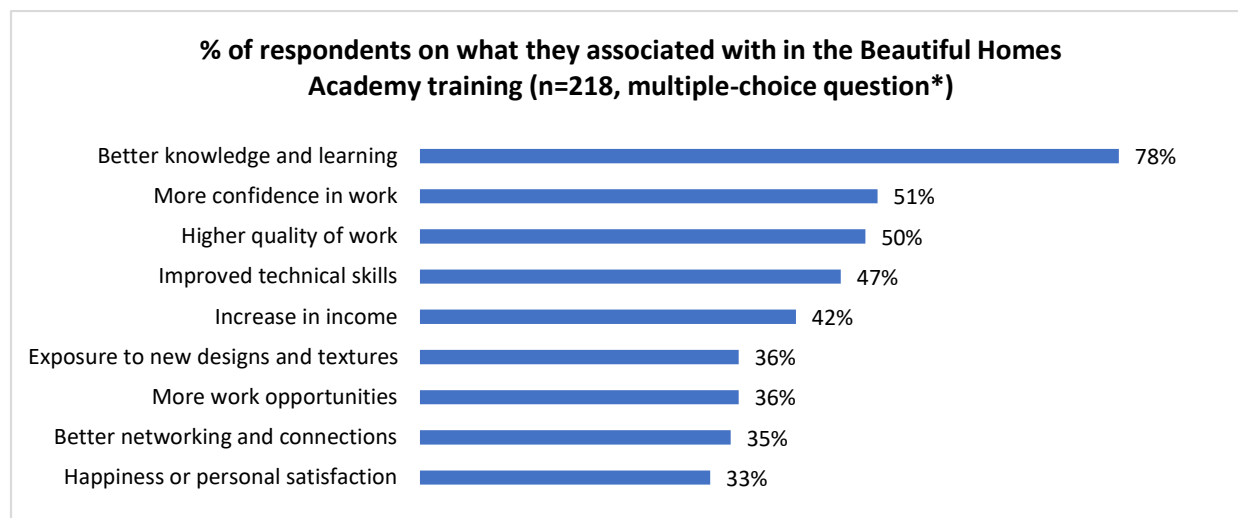
said they found the course beneficial in improving their work quality. 53% stated it ensured better career prospects, and 42% felt the program helped them remain competitive in the market.



(*Note: Participants could choose more than one option in the multiple-choice question, hence the percentages exceed 100%. The 215 participants were the ones who would have recommended the program to others.)

Program endorsement: The program demonstrated high perceived value, as 99% of the participants would recommend it. It was observed that many workers returned for advanced modules, confirming strong outcomes, underscoring worker trust and value addition for the participants.

Feedback on the Beautiful Homes Academy (BHA) training: In a multiple-choice question on what the participants associated with the training at the Beautiful Homes Academy, 78% claimed they had better knowledge and learning, 51% associated with more confidence at work, and 50% felt the Academy helped improve their quality of work. Over 40% said the Academy helped enhance their technical skills and also improved their income.



(* Note: Participants could choose more than one option in the multiple-choice question, hence the percentages exceed 100%.)

PROGRAM IMPACT

The Beautiful Homes Academy (BHA) program delivered measurable improvements in upskilling technical skills, boosting incomes and financial stability, and restoring social dignity for painters and contractors, reinforcing the transformative CSR initiative. By enabling painters to transition from informal labour to trusted advisors, the program strengthened livelihoods and enhanced customer confidence. The blue textboxes highlight the key takeaways on the program's impact on the beneficiaries.

Program Impact - Key Takeaways (Score: 4.0/5)

Enhanced technical skills and work quality: The program significantly strengthened professional capabilities, with 78% of participants reporting improved technical skills and work quality. Specialised modules such as Décor Advisor (DA) and Interior Designer Finishes (IDF) enabled workers to master advanced techniques, and 79% improved their understanding of colour tones, lighting, and finishes. In comparison, 73% felt confident working independently on advanced textures. These skills translated into greater ability to advise customers, upsell premium finishes, and command better rates.

Safety practices: Safety training had a tangible impact, with 56% of participants adopting new risk prevention practices such as PPE use, scaffolding, and hygiene compliance. Safe practices were reinforced on-site, reducing risks in a trade historically marked by informal standards.

Improved market competitiveness and customer engagement: Graduates of DA training reported stronger advisory skills, with 80% capable of offering décor advice and product upgrades. Similarly, 70% of IDF participants convinced customers to adopt texture finishes, and 65% successfully charged higher prices for specialised work. The workers were increasingly shifting from execution roles to advisory positions as validated by customer referrals and conversions.

Improved incomes and financial stability: The program improved livelihoods as 57% reported a substantive increase in job orders, and 90% experienced improved household savings and financial stability.

Positive impact on personal lives: The training led to meaningful improvements in personal and family life. Participants reported investments in new tools (54%), support for education and health expenses (39%), vehicle upgrades (36%), and home improvements (29%). Many also started new savings plans and increased participation in social and family events, reflecting broader social inclusion.

Improved self-assurance, pride, and dignity: The program successfully elevated participants' self-worth. 83% felt more confident and proud of their profession, while 79% felt more respected and valued in their communities. The empirical observations noted reduced stigma and enhanced dignity, and enhanced identity as a core outcome.

Customer preference for certified workers: Certification from BHA became a market differentiator, with 61% of participants noting that premium customers preferred accredited workers. The training program reinforced the Academy's role in professionalising the trade and creating new opportunities for its graduates.

Program Impact – Sub-scores by Themes

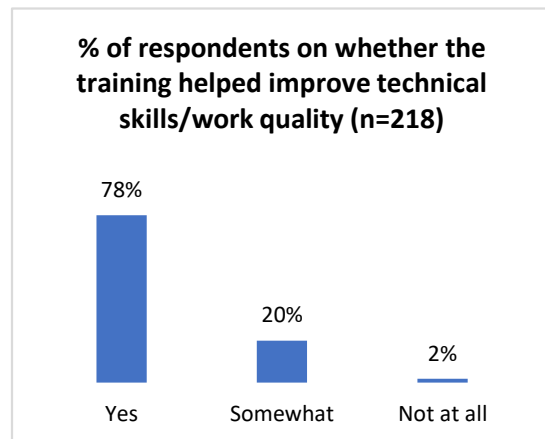
- The sub-score for economic impact on participants was rated very good at 4.1/5, as most of them reported increase in work sites after the training.
- The sub-score for inter/intrapersonal impact on participants was rated moderately fine at 3.7/5. Most participants reported feeling an improved sense of self assurance, social empowerment and dignity after the training.

Program Impact – Sub-scores by Courses

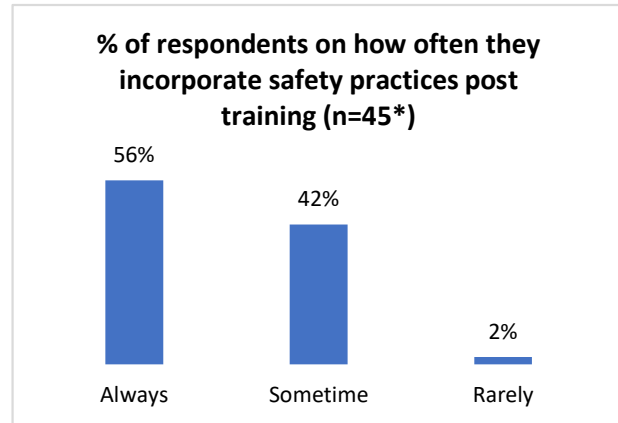
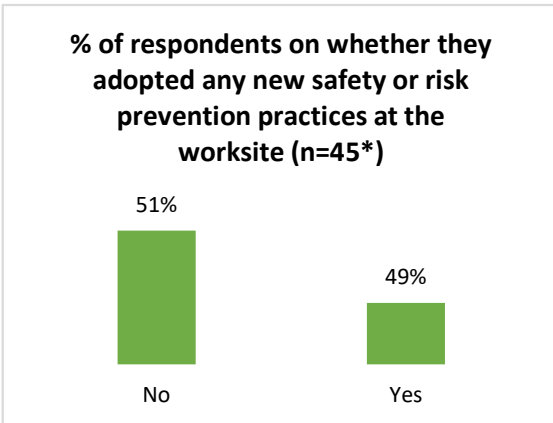
- Program impact subscore for the **Décor Advisor** course participants was rated **very good at 4.0/5** as most could confidently guide customers on décor, colour tones and finishes.
- Program impact subscore for the **Interior Designer Finishes** course participants was **moderately fine at 3.5/5**. Most participants were confident in influencing customers' choices to opt for premium finishes.
- Program impact subscore for the **Health & Safety** course participants was **average at 2.6/5**, since more than half of them were following safety protocols and only some of them were applying it consistently across work sites.

(Note: Sub-scores are calculated based only on the specific data points related to improvement in the targeted skill/competency/behaviour for that particular course or those related to economic impact or inter/intrapersonal impact. The overall score for impact is calculated using all data points under the impact parameter and is not an average of course specific scores or the theme-based sub-scores.)

Overall improvement in technical skills: Of the 218 participants, 78% reported that the training helped improve their technical skills and work quality significantly, and 20% felt it improved somewhat.



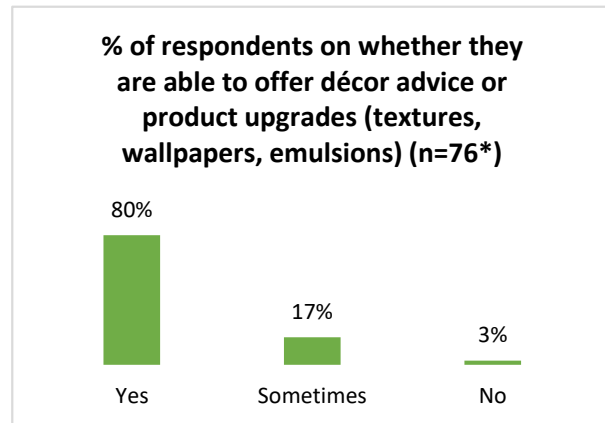
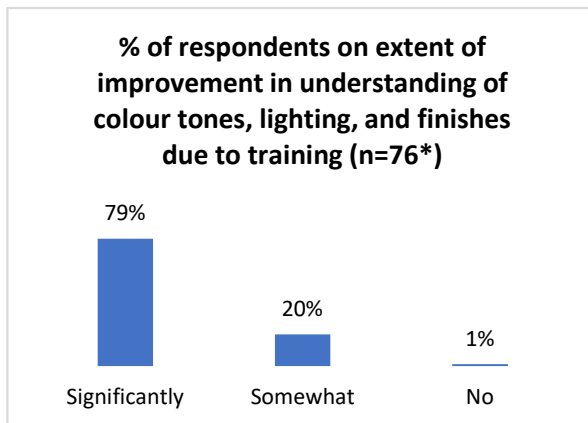
Outcomes after the Health and Safety training: Of the 45 trainee participants who attended the Health and Safety training, 51% adopted new safety and risk prevention practices at the worksite after the training. When questioned about how often they incorporated safety practices and ensured health and safety compliance (PPE, first aid, scaffolding, hygiene) since they joined training, 56% stated they always ensured compliance, and 42% did sometimes.



(* Note: The graphs above represent the 45 participants of the Health & Safety course.)

Outcomes after the Décor Advisor training: Of the 76 participants of the Décor Advisor (DA) course, 79% of the participants witnessed a significant improvement in understanding of colour tones, lighting and finishes, and 20% felt they improved somewhat after the DA program.

80% of those who trained in the DA course could also offer décor advice and suggest product upgrades to customers. 17% of the 76 participants were offering advice sometimes. The transition from execution to advisory roles was validated by customer referrals and conversions, signalling the professional recognition of the trade.

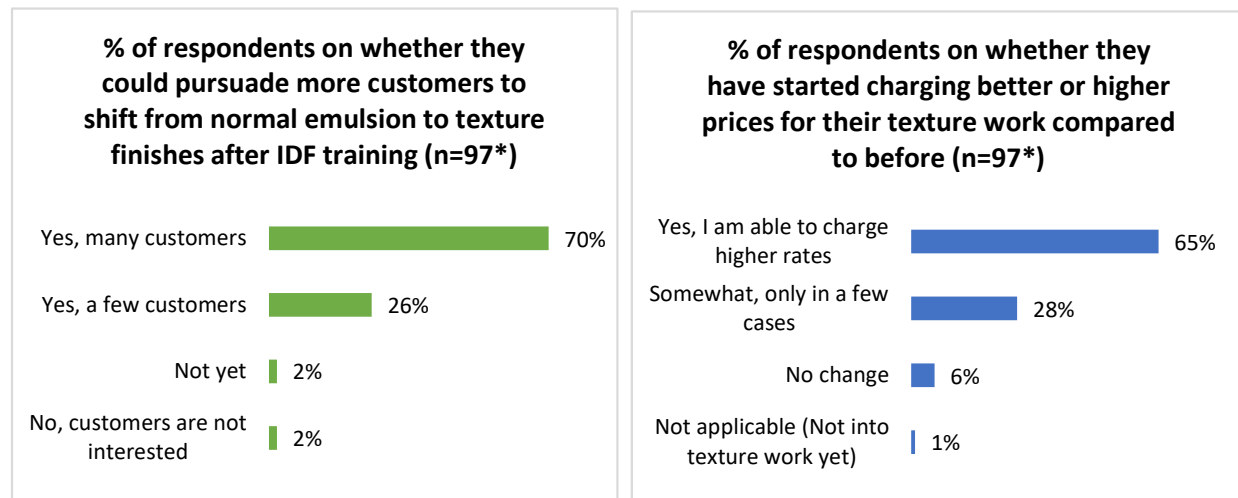


(* Note: The graphs above represent the 76 participants of the Décor Advisor course.)

Improvement in skills to advise customers: The décor advisor training enabled participants to upskill to advisory roles, with 80% offering décor suggestions or product upgrades. Customer referrals and conversions, reinforced the value of this shift.

Outcomes after the Interior Designer Finishes training - upsell to customers and command better prices: Of the 97 participants who participated in the Interior Designer Finishes (IDF) course, 70% could convince many customers to adopt texture finishes instead of regular emulsion painting, and 26% managed to convince a few customers.

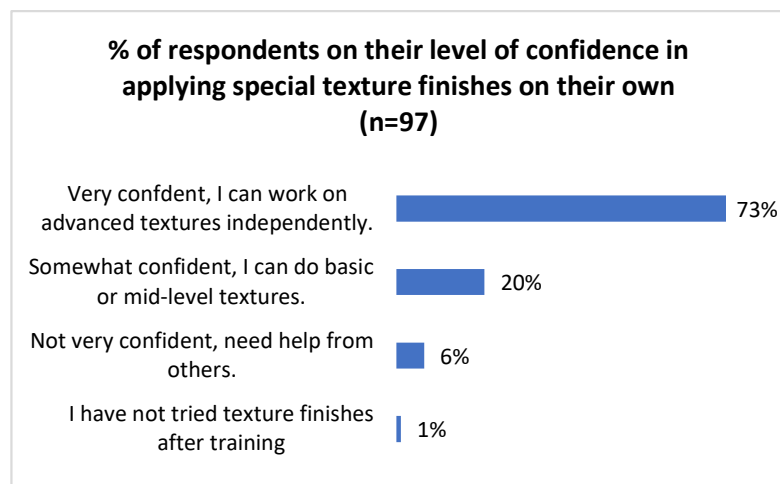
After the IDF training, 65% of the participants even said they were able to charge better/higher prices for the texture work as compared to before. 28% could do so in a few cases.



(* Note: The graphs above represent the 97 participants of the Interior Designer Finishes course.)

Capability to upsell textures: Nearly 70% of the participants (out of 97 who had enrolled in IDF course) were able to upsell texture finishing to customers, despite affordability being a barrier for many. Observations validated the skill as in-demand and high-margin. Impact was evaluated by assessing whether workers were able to successfully convert texture jobs.

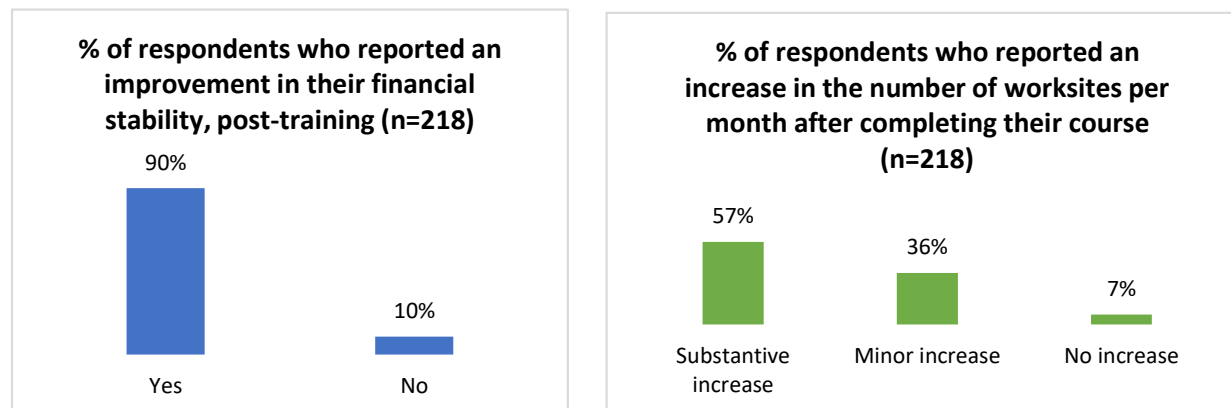
Outcomes after the Interior Designer Finishes training - enhanced confidence in working on texture finishes: After the IDF training, of the 97 participants, 73% stated they felt more confident in working independently on advanced textures, while 20% were somewhat confident and could do basic or mid-level textures.



(* Note: The graph above on the right presents the 97 participants of the Interior Designer Finishes course.)

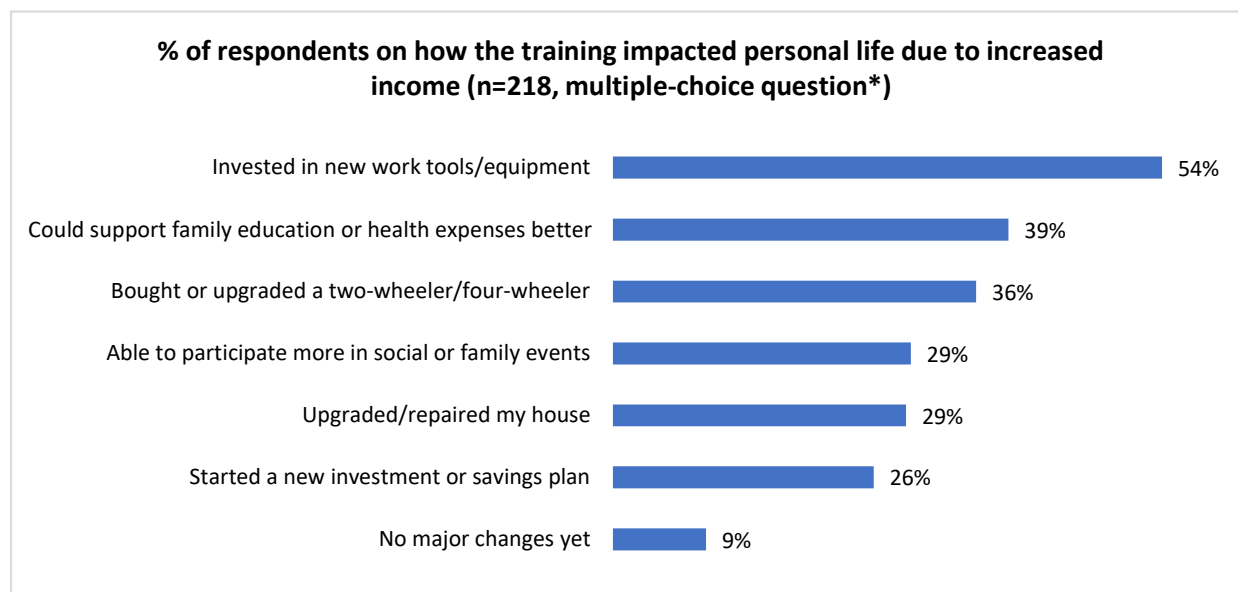
More job orders, incomes and financial stability after training: After completing the training, 57% of the 218 participants reported a substantive increase in the number of worksites per month, while 36% reported a minor increase. 90% also stated that their household savings and financial stability improved post-training.

The BHA supported participants lacking confidence in site conversions while tracking success indicators such as team growth, customer acquisition, referrals, and increased white goods purchases. Annual impact assessments and post-training or income feedback calls helped measure real on-ground outcomes.



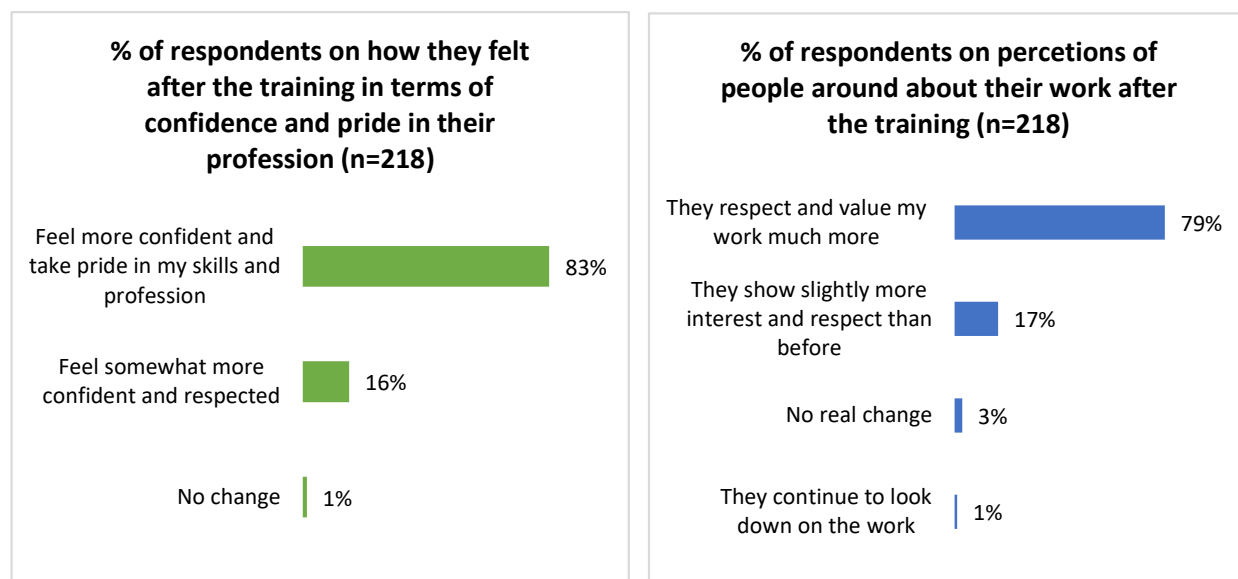
Improved incomes and financial stability after the training: 65% of the participants (out of 95 IDF participants) reported charging higher rates. Of the 218 participants, 57% could secure more work, and 90% felt their financial stability improved after the training.

Positive impact on personal life, savings, and investments: The training program led to tangible improvements in participants' personal lives. In a multiple-choice question on the positive impact on personal life, 54% of the participants stated that after attending the program, they invested in new work tools or equipment, 39% could better support family education and health expenses, 36% bought or upgraded a two-wheeler/four-wheeler, and 29% upgraded or repaired their homes. Additionally, 29% reported greater participation in social and family events, while 26% started new savings or investment plans. A majority experienced meaningful gains in livelihood, stability, and social inclusion.



(* Note: Participants could choose more than one option in the multiple-choice question, hence the percentages exceed 100%.)

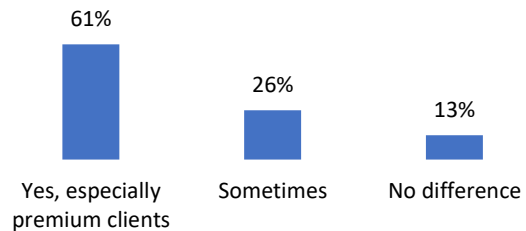
Enhanced self-assurance and social dignity: After the training and the improved work opportunities, 83% of the participants felt more confident, and a sense of pride in their profession and 16% felt somewhat more confident and respected. When questioned on how people's perception of them had changed since they joined training, 79% felt more respected and valued, and 17% felt the interest and respect had only slightly increased.



Self-assurance and social dignity raised: The program elevated the dignity and professional identity, since 83% of the participants felt greater confidence and 79% observed increased respect from their families and peers. Empirical observations highlighted increase in incomes of the participants, better confidence, and reduced stigma. Social identity was recognised as a core outcome.

Customers' preference post certification: The survey participants noted an enhancement of customers' perception after they received accreditation from Beautiful Homes Academy. 61% of the participants felt the premium customers showed a preference towards those who had been BHA certified, while 26% stated that, only sometimes, the customers showed a preference.

% of respondents on whether customers show preference due to the BHA certification (n=218)



PROGRAM SUSTAINABILITY

The following textbox highlights the key takeaways on the program's sustainability.

Program Sustainability - Key Takeaways (Score: 3.6/5)

Continued application of newly acquired skills: Even after course completion, 76% of participants consistently applied newly acquired techniques at worksites, while another 21% used them occasionally. 87% reported no difficulty in applying their skills, demonstrating that the training was practical and seamlessly integrated into daily work practices.

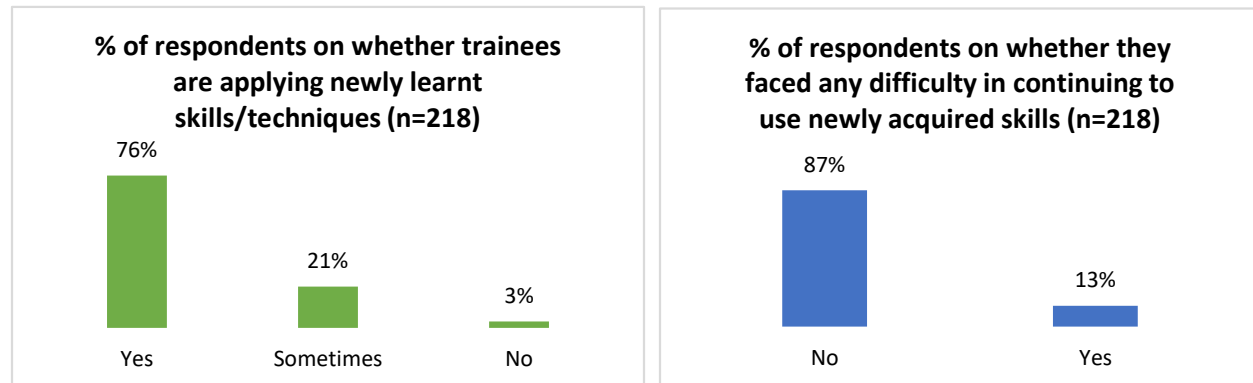
Alumni engagement and communication channels: Sustained connection with the Academy is a key driver of program longevity. Participants preferred WhatsApp (73%) and follow-up calls (56%) for updates on refresher trainings and alumni interactions, 28% opted for local shop meetings. Overall, 60% maintained regular communication with trainers and peers, ensuring ongoing knowledge exchange and reinforcement of skills.

Certification utility and future interest: The BHA certification proved to be a valuable credential, with 94% of participants affirming its utility and 55% rating it as very useful. Looking ahead, 85% expressed interest in refresher or advanced courses, reflecting strong demand for continuous learning and validating the Academy's role in sustaining professional growth.

Retention and progression pathways: Empirical observations showed high retention and progression, particularly in locations with fixed academies. Many participants returned for advanced modules, DA graduates often transitioned to IDF texture training. This validated the Academy's role in skill advancement and career progression.

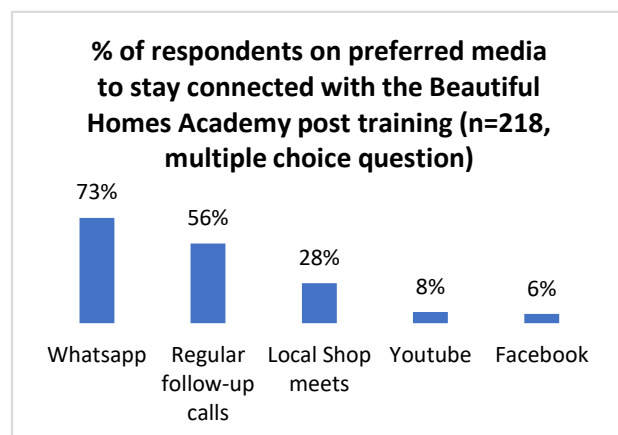
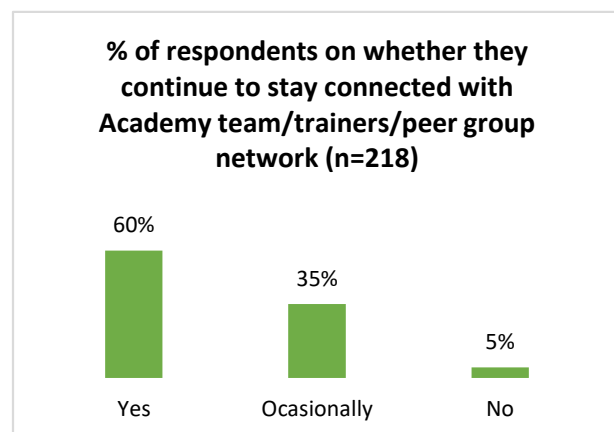
Application of newly acquired skills and challenges: Much after the program culminated, 76% of the participants reported applying their newly acquired painting skills/techniques in their work sites. The 24% who face difficulty in applying new techniques cite external factors such as client demand or materials. Only 21% were using it sometimes.

87% of the participants stated they could continue applying their skills without any difficulty.



Preferred mode of communication for receiving updates and alumni interaction:

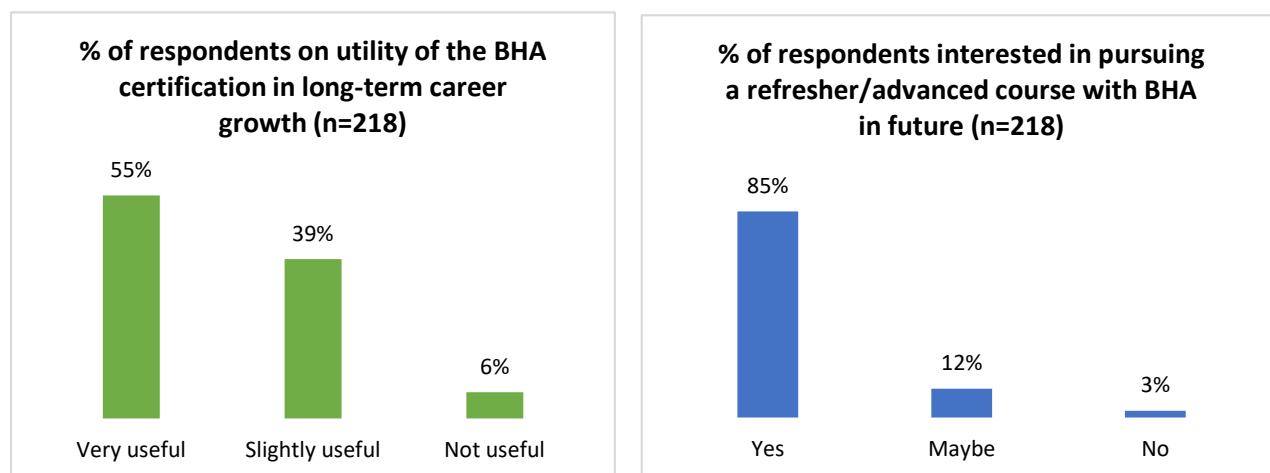
When asked which mode of communication they preferred to receive updates on refresher trainings and stay connected with the Beautiful Homes Academy, and for alumni interactions, 73% of the participants preferred WhatsApp, 56% preferred follow-up calls, and 28% chose meetings at local Asian Paints dealers/stores/local shops. Overall, 60% reported maintaining regular communication with the Academy team, trainers, and peers, while 35% connected only occasionally.



Perceived utility of the certification and future interest in pursuing refresher/advanced BHA courses: 94% of the participants felt the BHA certification served its utility, with 55% stating it was very useful. 85% also expressed interest in pursuing a refresher/advanced course with BHA in future. These statements validate the utility and value of the skill development courses conducted by the Beautiful Homes Academy.

It was observed that in many places where there were fixed academies, there was a

sizeable number of repeat participants, indicating high retention and progression. DA graduates often converted to Texture (IDF) training. The Academy revamps modules annually to keep up with market trends and phase out outdated designs.



OECD PARAMETER SCORES AND THEIR RATIONALE

The OECD parameter scores were calculated as a weighted index of the survey responses. Ideal responses were added as the score equivalent of percent correct responses. In order to eliminate double-counting in multiple-choice questions, where participants chose more than one answer/option, the percentage of responses out of the total responses to the question has been used. The table below shows the scores for relevant OECD parameters, and the rationale for the score in terms of factors that either raised the scores or reduced them based on scope for improvement.

OECD Parameter	Scores (Out of 5)*	Rationale (Factors that raised the score up or down)
Relevance	4.3	Strength/Strong factors • High alignment with participants' needs • Modules designed to match in-demand skills. • Secondary research validated that the program filled a long-standing gap in the painting trade. Opportunities/ Scope for improvement • There was scope to tailor content to everyday practices.
Effectiveness	4.4	Strength/Strong factors • Strong infrastructure • Knowledgeable trainers • Timely completion, high satisfaction and endorsement

		- Evidence of behavioural change from execution to advisory roles, safety practices, and repeat enrolment for advanced modules. Opportunities/ Scope for improvement - Need for stronger reinforcement of safety compliance.
Impact	4	Strength/Strong factors - Clear improvements in technical skills - Décor advisory capacity and customer persuasion - Significant financial outcomes - Social outcomes included dignity, respect, and reduced stigma. Opportunities/ Scope for improvement - Adoption of safety practices was moderate, and only 57% reported a substantive increase in job orders, showing uneven distribution of benefits.
Sustainability	3.6	Strength/Strong factors - Strong indications of skills applied at work - Highly valued certification - Demand for advanced finishes was higher, and many wanted to rejoin for refresher courses. Opportunities/ Scope for improvement - Post-training, the engagement with mentors and peers in the Academy was moderate. - Long-term adoption of safety practices requires reinforcement.

(* Note: The scores are on a scale of 1 to 5, 1 denoting the lowest, and 5 indicating the highest in terms of parameter outcomes based on the findings from both quantitative and qualitative assessments, for multiple-choice questions, we took the % of responses to eliminate double-counting in % of participants, as participants had chosen more than one response in many cases)

Chapter 05. Recommendations and the way forward

Customise training to participant profiles

Observation: Participants joined the courses with varied prior experience. Some of the participants found their course modules either too basic or too advanced in comparison to their existing skills.

Implication: The standardised curriculum is practical at scale, but learning depth differs by participant profile.

Recommended action: Introduce light-touch skill-level segmentation to enhance learning effectiveness. Implement a short pre-training screening to group participants into basic and advanced tracks for select modules (e.g., textures, finishes), without altering the overall program structure. An appropriate screening of their skills would help segment participants into proper groups, and the training would deliver more value to the individual participants as well as the industry.

Preserve strong delivery while deepening select modules

Observation: Training delivery and infrastructure were consistently rated high across locations.

Implication: Core training design and delivery are strong and should be preserved.

Recommended action: Retain the existing delivery model while selectively deepening high-value modules. Identify one or two high-demand modules (e.g., premium finishes, décor advisory) for optional extended practice or refresher sessions.

Sustaining post-training engagement

Observation: Most participants applied skills immediately post-training, but engagement reduced over time.

Implication: Skills are relevant and usable, but reinforcement declines once participants return to work sites.

Recommended action: Strengthen post-training touchpoints to sustain application. Increase and standardise post-training engagement through WhatsApp groups and periodic check-ins led by trainers or regional coordinators.

Reinforcing safety practices

Observation: Safety training was well delivered, yet on-site adoption varied considerably by context.

Implication: Awareness is strong, but consistent habit formation requires ongoing reinforcement.

Recommended action: Reinforce safety practices through reminders rather than additional classroom training. Use short visual reminders, periodic digital nudges, and brief refresher demonstrations during follow-up interactions.

Leveraging certification for professional identity

Observation: The Asian Paints' certification was highly valued and improved market credibility for the painters and contractors.

Implication: Certification is a key driver of participant motivation and perceived legitimacy.

Recommended action: Leverage certification more actively to reinforce professional identity. Encourage trainers and centres to reiterate certification value during follow-ups and explore visible certification cues such as ID cards or digital badges.

Building progression pathways

Observation: Participants demonstrated a high interest in rejoining for refresher and advanced courses.

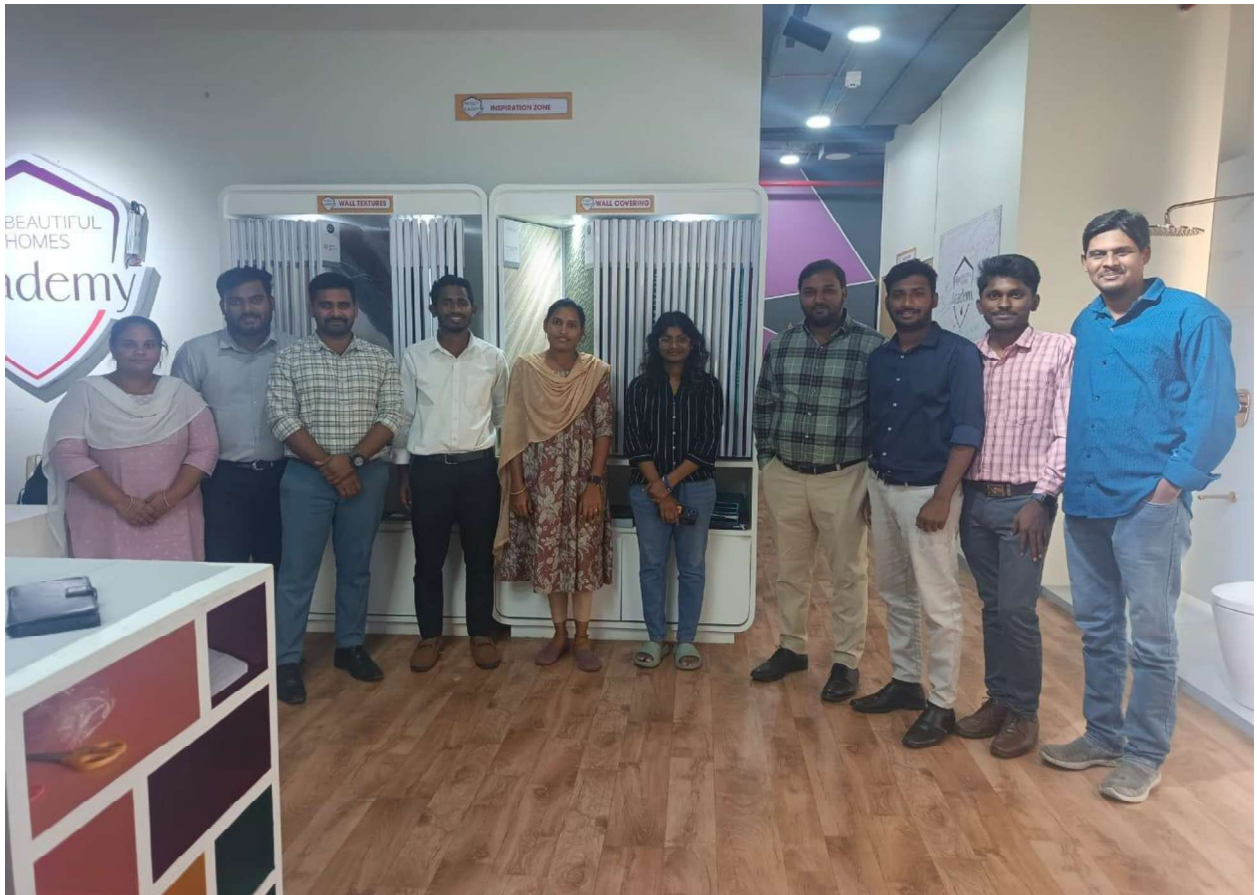
Implication: Participants view BHA as a long-term skill partner, not a one-time training provider.

Recommended action: Build a clear progression pathway for interested participants. Create a simple roadmap of available advanced or refresher options and share it at course completion.

Conclusion

The Beautiful Homes Academy program bridged a critical gap in the unorganised painting sector by turning informal, on-the-job learning into structured vocational training. By combining technical knowledge with practical skills, it has enhanced workers' employability, improved income stability, and elevated painting as a recognised profession, contributing to stronger livelihoods, community inclusion, and sustainable development.

PHOTO GALLERY





Annexures

Abbreviation	Description
AP	Asian Paints Limited
BHA	Beautiful Homes Academy
DA	Décor Advisor
CSDCI	Construction Skill Development Council of India
CSR	Corporate Social Responsibility
FCA	Fixed Colour Academy
IDF	Interior Designer Finish
IDI	In-depth Interview
MCA	Mobile Colour Academy
NSDC	National Skill Development Corporation