

Impact Assessment Study under Holistic Rural Development Programme (HRDP) Chhattisgarh (P0293)



Prepared For:



HDFC Bank CSR

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Executive Summary

The HDFC Bank supported Ambuja Cement Foundation (ACF) for implementing Holistic Rural Development Program (HRDP) in 8 villages across Ambikapur block of Chhattisgarh between July 2019 and September 2022. Post completion of the project, Intellectap, conducted an impact assessment of this project.

The impact assessment methodology was developed in order to evaluate the performance and effectiveness of the project's interventions and activities, socioeconomic changes among the beneficiary households, income, and promotion of community-based institutions for project sustainability. To evaluate the project's results and impact, a mixed-methods approach was adopted integrating qualitative and quantitative data collection and analysis. Retrospective recall was used to record the pre- and post-project outcomes, providing insights into how the project indicators changed over baseline. The samples for the study were chosen using stratified random sampling and the PPS (Probability Proportional to Size) method. The assessment covered 8 villages, 411 household interviews, 3 In-Depth Interviews (IDIs), 2 Key Informant Interviews (KIIs), and 8 Focus Group Discussions (FGDs). This comprehensive research design enabled a thorough evaluation of the project's impact, learning, and recommendations for future interventions. This report presents the outcomes of a comprehensive project focused on Natural Resource Management (NRM), skill training, livelihood enhancement, health and sanitation, and education promotion in the Ambikapur.

Natural Resource Management (NRM)

In NRM, the project implemented various activities such as installing drip and sprinkler systems, promoting solar pumps, building check dams, mulching, adopting the System of Rice Intensification (SRI), and distributing seeds. **The project positively impacted the median net income, with a 60% increase (from Rs. 34,000 to Rs. 55,000). Paddy productivity increased by 34 percent on average, and wheat productivity increased by 32 percent, surpassing the state average by 95 percent.** Crop diversification was encouraged and more people now grow crops like wheat (23% increase), sugarcane (180% increase, from 10 respondents to 28), maize (23% increase), and arhar (30% increase), and more farmers have chosen to grow vegetable crops such as tomatoes (280% increase, from 10 respondents to 38), etc. This has supported in improving local farmers' economic well-being. Clean energy interventions, like solar water pumps, provided clean drinking water to over 14% of respondents.

Health and Sanitation (H&S)

Under health and sanitation, the project focused on sanitation infrastructure, providing vegetable seeds, and kitchen garden training. **About 33% of beneficiaries reported positive outcomes, including a rise in households having access to private toilets facilities, from 73% to 100%.** HDFC supported such households by providing them construction materials to build toilets. The kitchen garden project, with **seed provision (96% sampled households) and training (89% sampled households)**, contributed to food security, with **81% of the produce utilized for self-consumption.** Major vegetables grown include cabbage, brinjal, tomato, bittergourd, spinach, fenugreek, chilli, radish, coriander, among others. **More than 95% of respondents noted reduced expenditure on vegetables.**

Skill Training and Livelihood Enhancement (ST&LE)

Construction of vermi-compost pits, training for SHG members along with support for income generation activities such as poultry, fishery, masala unit, tent house, and vaccination and health services for livestock were the key interventions supported under Skill Training and Livelihood Enhancement. HDFC supported the establishment of SHGs with an emphasis on capacity building and training of its members, thereby assisting the SHGs in their continued operation and effectiveness. Members of SHGs have reported a number of advantages, such as **rise in self-confidence (92%)**, a dedicated practice of **personal savings (82%)**, **income generation (75%)**, and **availability of low-interest loans (52%)**. These results have a major impact on women's empowerment. The SHGs have played a crucial role in providing skill and entrepreneurial development training in areas including management, bookkeeping, lending, savings, and company operations.

More than **65% of respondents have benefited from ACF and HDFC's livestock management** interventions such as vaccination campaigns, training, health services and animal support. These interventions have had a favourable impact on more than 40% of the recipients. Goat management has greatly improved thanks to vaccination campaigns, assistance in building animal shelters, fodder management, and the production of manure from goat dung. Since goats are the most common animal, beneficiaries **report healthier goats, lower livestock mortality,, and a 50% median increase in monthly income from livestock**. Vaccination camps, training, health services, and animal support are examples of poultry management interventions that have a favourable impact on more than 40% of recipients. Several SHGs were also supported in income generating activities such as fisheries, poultry and a shed, and bioflocks. Bioflocks are cemented fishing tanks that can be maintained in the backyard, and HDFC has supported in building and maintaining seventeen such tanks across eight project villages

Promotion of Education (PoE)

Interventions such as building separate restrooms for boys and girls, applying BaLA artwork, and providing drinking water stations have all been successfully implemented in Ambikapur schools. More than **93% of students said they frequently used these facilities**, and they linked the availability of clean drinking water to fewer health problems and improved attendances and participation rates. . **All students report that having separate restrooms for boys and girls has improved attendance**, allowing them to attend more frequently and spend more time in class.

Table 1: Summary of Key Impact Indicators

Indicators (based on median)	Before	After	% Change
Increase in average productivity (of three major crops) (quintal/acre)	8.5	11.3	33%
Increase in average net annual income from agriculture	INR 34,000	INR 55,000	62%
Monthly income from SHG business activity	INR 1000	INR 2000	100%
Increase in average productivity of paddy (kg/acre)	INR 850	INR 1130	33%

Three of the 4 key impact indicators have been mentioned here as enterprises were established as part of SHGs and no employment-oriented skill trainings were included in the project design.

HRDI Indicators

The impact of the project was assessed on Holistic Rural Development Index (HRDI), which is a weighted index that gives an index value for each focus area and for the entire project.

The thematic-wise indicators were assigned weights to arrive at the composite **HRDI score of 0.55 indicating a notable positive change of 111 percent toward the desired impact from the baseline score of 0.26.**

The high percentage change in STLE can be attributed to the low baseline score and extensive work done.

Findings showed an improvement in all focus areas as well as the project, as shown below:

Table 2: Summary of HRDI Scores

Domain	NRM		ST&LE		H&S		PoE		Total	
HRDI Score	Base line	End line	Base line	End line	Base line	End line	Baseline	Endline	Baseline	Endline
	0.09	0.14	0.04	0.15	0.08	0.14	0.07	0.13	0.28	0.56
%Change	56%		275%		75%		86%		100%	

Recommendations

Recommendations that can sustain the project initiatives:

- To boost the adoption and sustainability of farming practices, the implementing partner should ensure farmers adhere to the agricultural techniques taught and facilitate follow-up visits with experts, preferably from KVK, to support and reinforce these practices.
- The success of NRM activities is evident in the significant increases in agricultural yield (up 34%) and median net income (up 61%). It is recommended to prioritize the promotion and expansion of these practices to further enhance rural livelihoods. ACF should continue funding NRM programs and sustainable agricultural methods in the project area, and extend its efforts to nearby villages. Additionally, focus on improving market access, input procurement, financial services, and capacity building, while expanding the current initiatives on income and agricultural practices by FPOs.

Recommendations for enhancing the design of the HRDP:

- Consider extending the project's duration from three to five years to facilitate more effective program implementation and maintenance.

1 Introduction

Over the years, India has made enormous strides in rural development. While 65% of the country's population lives in rural areas (as of 2021), nearly half, or 47%, is still dependent on agriculture for a living (PIB Delhi, 2023). The rural ecosystem has grown by around 10% per year over the last five years, but it is still plagued by numerous issues, such as a lack of irrigation, deteriorating soil health, disguised unemployment, fewer skill development opportunities, unreliable healthcare availability, low literacy rates, and increasing environmental degradation, among others. To address these diverse yet interconnected developmental challenges, the HDFC Bank, through its Corporate Social Responsibility (CSR) initiative 'Parivartan,' supports several projects that provide holistic rural development to help the rural population grow and prosper.

1.1 About HRDP

The goal of these initiatives is to promote sustainable socioeconomic and ecological development in order to guarantee the development of prosperous and content communities. The program's all-encompassing approach meets the needs of the communities by providing the essential inputs on matters like fostering economic independence through opportunities for skill development and livelihoods, delivering fundamental infrastructural development, and creating a better ecosystem that fosters better living conditions. It intends to bring about a socioeconomic transformation in the lives of the rural community by concentrating on the development of human capital, the management of natural resources, and infrastructure in poor and backward villages.

Under the aegis of Parivartan, the Holistic Rural Development Programme (HRDP) is HDFC Bank's flagship CSR programme in which non-governmental organisations (NGOs) across the country are supported to undertake development interventions in four thematic areas:

- a) Natural Resource Management (NRM)
- b) Skill Training & Livelihood Enhancement (ST&LE)
- c) Health and Sanitation (H&S)
- d) Promotion of Education (PoE)

The World Bank defines rural development as the improvement in the social and economic environment of the rural population. The fundamental aims of rural development include planning, creating, and using the resources such as land, water, and manpower to promote equal opportunity for the population reliant on them. Given this context, HRDP strives to enhance the lives of people in rural communities by primarily bringing about sustainable socio-economic transformation and ecological development. Its holistic approach caters to their various needs by addressing development of human capital, effective management of natural resources, economic independence through skilling and livelihood opportunities, basic infrastructure development, and enhancement of living conditions.

1.2 Objectives of Impact Assessment

The impact assessment aims at understanding:

- Overall process undertaken for implementing HRDP activities
- Key milestones achieved
- Impact created by HRDP activities
- Challenges faced and how they were managed

The guiding philosophy behind this study is to add value by showcasing successful initiatives and recommending possible ways to address existing challenges.

The study seeks to:

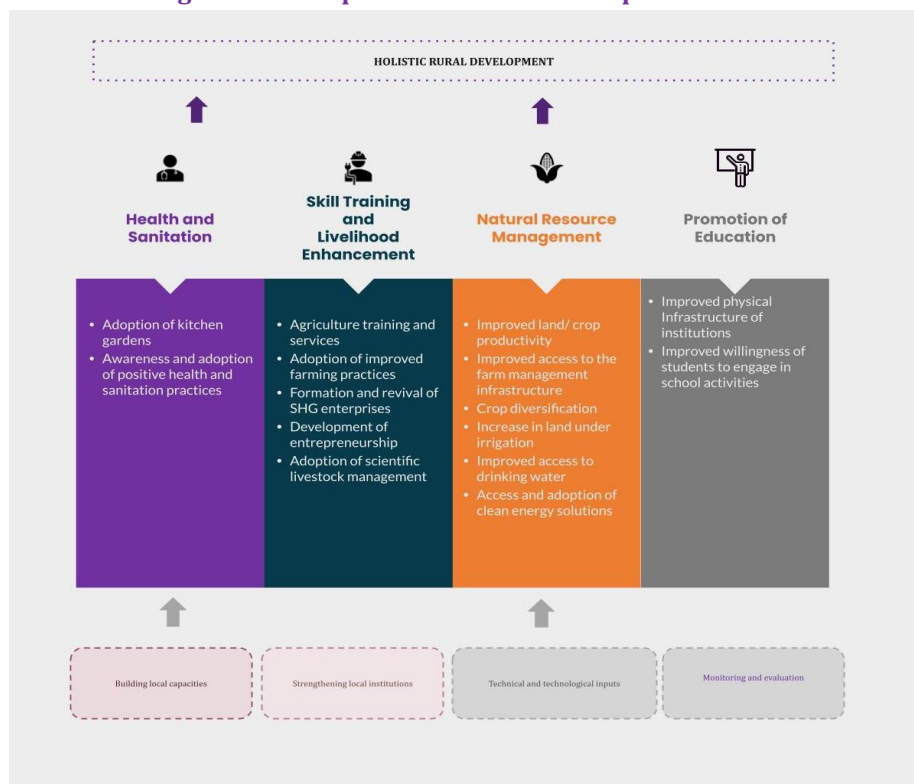
- Critically and objectively evaluate implementation and performance
- Determine reasons for certain outcomes or lack thereof
- Derive lessons learnt and good practices
- Provide evidence-based findings to inform future operational and strategic decisions while planning and funding partner organisations

This study was also an opportunity to assess the on-ground relevance and effectiveness of the program.

1.3 Conceptual Framework Adopted

The conceptual framework and the areas covered under the assessment are depicted below (see Figure 1). The aim is to build local capacities and strengthen local institutions, while giving technical inputs and conducting evaluation across the four thematic areas. The objectives under NRM, ST&LE, H&S and PoE are enumerated in the figure below.

Figure 1: Conceptual Framework of Implementation



1.4 About the Project Area

Chhattisgarh is a landlocked state in Central India. Despite being a rapidly developing state, pervasive poverty persists within its boundaries. The state's economic reliance is predominantly placed on the sectors of mining, agriculture, energy production, and manufacturing. Approximately 50% of its terrain is designated as farmland, with the central lowland gaining recognition for its prolific rice production. Moreover, the state contributes significantly to the national supply of tendu leaves, particularly used in the production of bidis. Unfortunately, this

economic progress has not translated into widespread prosperity, as approximately 40% of the state's population continues to grapple with poverty. The present study was undertaken in two blocks within the Ambikapur block of Surguja district of Chhattisgarh, encompassing a total of eight villages. Forests cover a substantial portion of the state, with around 41% of its total geographical area dedicated to this natural resource. Each district within the state faces the challenge of a significant proportion of its population living in extreme poverty, exceeding one-fifth of the inhabitants in every district. These areas are also agriculture-dependent, so interventions are based on the necessity of the community, after consulting with the village council. Along with clean energy, the HRDP promoted the management of farms and water resources as part of natural resource management. Under "Skill Training and Livelihood Enhancement," "Promotion of Education," "Health and Sanitation," and "Healthcare and Hygiene," the project also focused on agriculture training and support, self-help group (SHG)/women development, skill training, livestock management, and entrepreneurship development.) (See Figure 2)

Figure 2: Areas covered under the study (map depicting areas covered under the study)



1.5 Partner Organisation – Ambuja Cement Foundation

Established in 1993 by Ambuja Cements Limited as a CSR foundation, Ambuja Cement Foundation (ACF) has evolved based on the founder's conviction that societal prosperity should align with business endeavours. With a dedicated Research and Monitoring Unit and external studies confirming substantial improvements in income, health, and overall well-being, ACF's impact extends beyond its core villages. Collaborating with like-minded organizations and institutions, ACF actively addresses pressing issues such as poverty, illiteracy, and financial empowerment for women. Presently, the foundation has reached over 900 villages across 11 states, aiming to contribute significantly to critical socio-economic challenges¹.

The primary mission of ACF is to "Energize, Involve, and Enable Communities to Realize their Potential" through diverse initiatives. These projects, conducted in collaboration with beneficiaries, NGOs, and the government, focus on fostering social and economic development in program villages. ACF's programs span various domains, including water management, agro-based livelihood, skill and entrepreneurship development, health, women's empowerment, education, and comprehensive rural development.

¹ [From Ambuja Cement Foundation website.](#)

2 Research Design and Methodology

The assessment used both, qualitative and quantitative methods. The process was carried out in a consultative manner involving interactions at key junctures with, both, HDFC Bank and ACF.

2.1 Criteria for Assessment

For each thematic area, activities completed by ACF were identified. The impact of these activities was assessed using the following criteria:

- Relevance and Convergence
- Impact and Effectiveness
- Sustainability

Under the criterion of relevance and convergence, the team assessed whether the design of the project interventions was:

- a) Aligned with the State's plans and priorities for rural development.
- b) Relevant to the local needs of the most vulnerable groups.
- c) Convergent with (and making use) of the Government's existing resources.
- d) Enabling different stakeholders to work together to achieve the intended outcomes of the project.

To assess the impact and effectiveness of the project, the team established the values of outcome indicators of all thematic interventions. The findings were assessed against the outcome indicators finalized during the outcome harvesting stage. Through qualitative evidence and analysis of project outcomes (in light of variables identified in consultation with HDFC Bank), the team tried to understand whether and how the project impacted the lives of community members in the project areas. The findings from primary quantitative data were substantiated by the information gathered from discussions with the communities/beneficiaries, teachers, students, entrepreneurs, and local village-level institutions.

For the criteria of sustainability, the team studied the primary data to understand if the project has worked on strengthening the community's capacity to ensure sustainability, and if any of the activities or strategies adopted have been or could be replicated.

2.2 Primary and Secondary Data Sources

Primary research included a quantitative household survey as well as in-depth interviews (IDIs), Key Informant Interviews (KIIs) and Focus Group Discussions (FGDs) with project beneficiaries, and the ACF team. The outcome mapping and result chain development was undertaken in consultation with the HDFC Bank team. Standardised key outcomes and indicators were identified for each thematic area (NRM, ST&LE, H&S and PoE). Based on the standardized list of outcomes and outputs, the questionnaire was developed. The details of the qualitative and quantitative data collection events made are given in the next section.

Figure 3: An FGD of Tent House Enterprise Beneficiaries in Progress



Secondary data sources included HDFC’s CSR Policy, Programme Log Frame (Logical Framework Analysis), Quarterly Progress reports, Project implementation timelines, Communication, and Documentation products, and other relevant reports/literature related to the project.

2.3 Sample Size and Distribution

From the 8 villages of the Ambikapur block where the project was implemented, all the villages were selected for the study. The beneficiaries were selected using purposive random sampling from a list of beneficiaries obtained from ACF. Since beneficiary selection was undertaken independently for each thematic area, the selection of more than one beneficiary from a single household was probable. In addition to this, there were instances where a single beneficiary received multiple benefits and support across the four thematic areas. Inclusion of beneficiaries for all thematic areas was ensured. The target sample size across eight villages was 400, however, 411 sample respondents were reached. The thematic areas wise sample covered was as follows (see Table 3, Table 4).

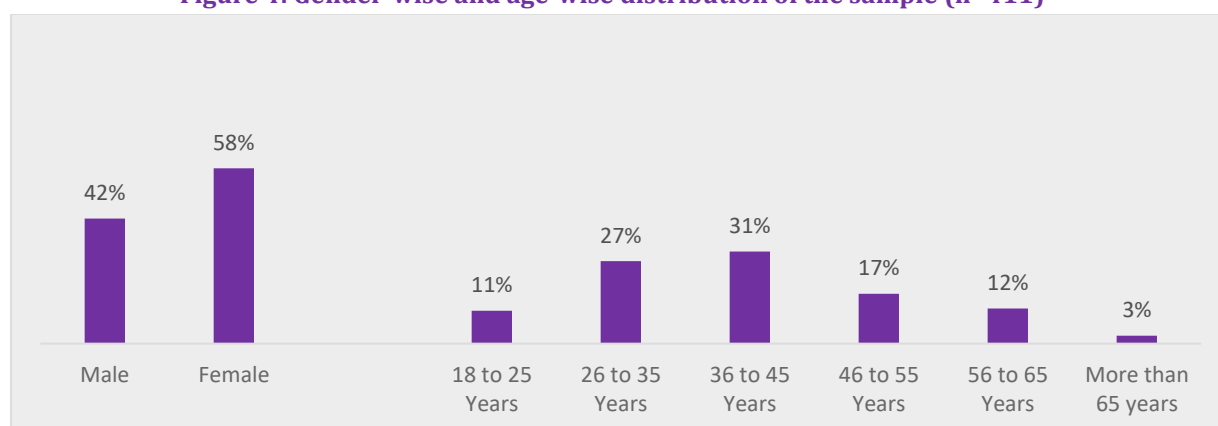
Table 3: Quantitative Sample Covered

Village Name	Total Households	NRM	Skill Training and Livelihood Enhancement	Health and Sanitation	Promotion of Education	Financial Literacy
Devgarh	26	22	18	12	13	6
Rajpuri Khurd	13	4	9	4	5	7
Ranpur khurd	64	57	58	32	32	14
Malgawan Khurd	69	61	64	21	60	44
Ramnagar	59	55	38	34	53	8
Kulhadi	60	58	49	21	19	10
Rukhpur	60	54	54	28	44	6
Ghanghari	60	57	43	28	35	8
Total	411	368	333	180	261	103

Table 4: Qualitative Sample Size Covered

District	FGDs: 8			IDIs and KIIS: 5		
	VD C	Community	Headmaster/School teacher	Village Head	Micro enterprise	Implementing Partner
Devgarh					2	1
Rajpuri Khurd					1	
Ranpur khurd		1			2	
Malgawan Khurd		1	1		1	
Rukhpur		2				
Ghanghari					1	
Total		4	1		7	1
Planned		4	1		7	1

Figure 4: Gender-wise and age-wise distribution of the sample (n=411)



Ambikapur block has a sex ratio of 920 to 1000 (2011 India Census). This is reflected in the number of beneficiaries in this area, as proportion of **women reached is higher (58%) as compared to men (42%)**. **The youth population (18-45 years)** constituted the majority of beneficiaries (**69%**), The more older age group (**45 to more than 55 years of age**) constituted **about 31 percent** of the respondents.

The quantitative and qualitative sampling methodology has been explained in detail (see page 43).

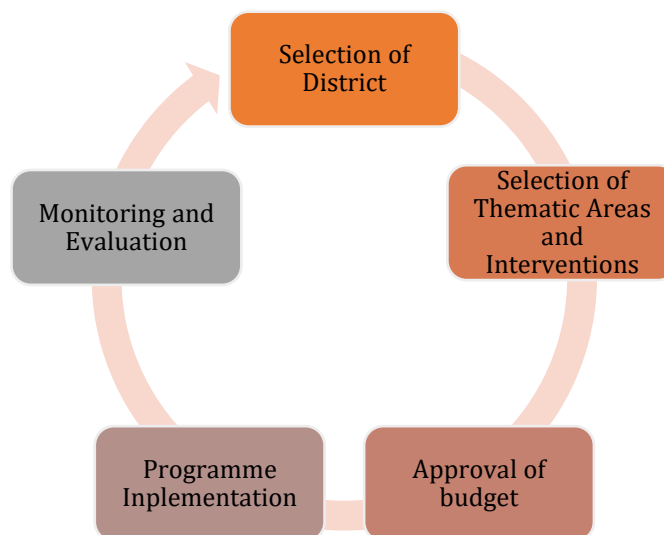
2.4 Training of Enumerators

A team of local enumerators, with requisite education and experience, were hired for data collection. Two days training in Ambikapur were provided to enumerators and supervisors by the Intellecap team.

3 Review of Project Planning and Implementation

The planning and implementation of the project involves five stages: selection of the geographical area viz. district, block, villages etc., selection of thematic areas and interventions, approval of budget, project implementation, and monitoring and evaluation. These stages are further explained below.

Figure 5: Planning and Implementation Process



3.1 Selection of Project Area

The state of Chhattisgarh is one of the poorest in the country, with about 40% of them living below the poverty line². In the rural areas of Ambikapur, the population majorly consists of tribal people. The project areas were selected in consultation with HDFC. Based on the primary analysis, some of the issues that this region faced were lack of involvement of women beyond their homes, low ground water levels, lack of irrigation facilities for rabi crops, lack of improved inputs for agriculture, lack of infrastructural needs in schools, among other things.

The project by HDFC Bank and ACF aimed to address these issues through a holistic and integrated approach. The project focuses on empowering the communities in five sectors across livelihoods, agriculture and natural resource management, health and sanitation, education, and financial literacy. The selected panchayats in backward villages of Ambikapur were strategically chosen for the project based on their socio-economic criteria and proximity to operations. Through this integrated development approach, the project seeks to uplift the communities and bridge the basic development gap in the region, aiming for sustainable growth and improvement in human development indicators.

² [World Bank Document on Chhattisgarh](#)

3.2 Selection of Thematic Areas and Interventions

Considering the above challenges in the area, HRDP interventions focused on promoting water and farm management in addition to clean energy. The project also focused on agricultural training and support, skill training, livestock management, and entrepreneurship development under ST&LE; educational institution development and education support under PoE; health awareness and sanitation practices under H&S. The activities specific to each village under the project were decided after in-depth consultation with the respective Village Development Committees (VDCs), which were constituted during the beginning of the project implementation. Activities under each of the four thematic areas are as follows (see Table 5).

Table 5: Activities under Four Thematic Areas in Ambikapur

Activity Category	Activities	Output Indicators
NRM		
Irrigation Management	Installation of Drip and Sprinkler, Lift Irrigation system, promotion of solar pumps	Income from agriculture
Water management-agriculture	Check dam, Gabion structure	
Farm Management	Mulching, SRI cultivation, Farm bunding, Land treatment (trenching), seed distribution, promotion of sericulture	
Clean Energy	Solar street lights, Solar drinking water supply	Clean energy
ST&LE		
Agriculture Training and Support	Farm field school, exposure visit, Construction of vermi-compost pits	Access to Agriculture Training and Services
SHG-Based Women Empowerment	Training for SHG members, Capacity building of SHG through 6 Module training	Skill and Entrepreneurship Development
Entrepreneurship Development	Tailoring, Poultry, fisheries, tent house, masala unit	
Livestock management	Vaccination camp, animal shelter support, fodder development support, manjers, goat manure making	Livestock Management
H&S		
Health	-	Health Infrastructure and Services
Sanitation	Household waste water soak pits	Sanitation Infrastructure and Services
Kitchen Garden	Seeds, training, demonstrations	Kitchen Garden
PoE		
Educational Institutions Development	School building renovation, BaLA, drinking water posts/RO filters	Infrastructure in Educational Institutions

Each category has been further broken down into sub-categories and activities, along with the focus beneficiary types.

3.3 Project Implementation

The interventions comprised a combination of providing direct materials and services such as seeds and sprinklers as farm inputs and implements, along with raising awareness about new agricultural techniques. The program's interventions are chosen on an annual basis, and a budget is allocated each year based on a request made to HDFC Bank by ACF. The field team has had extensive conversations with the village committees to study the issues and limitations in the

communities based on our interactions with the partner team. Activities and interventions were developed and put together based on their needs.

The HRDP started with the hiring of personnel and Community Resource Persons (CRPs) and the delivery of capacity-building trainings on a variety of topics, including HRDP's goals, roles, and responsibilities. To determine the most pressing problems and requirements of the communities, the project held Gram Sabha meetings and Participatory Rural Appraisals (PRA) in the eight villages. The identified needs were used to create plans and budgets that complemented HRDP's objectives.

The guidance and support that ACF staff provided to all parties was essential in enabling the timely implementation of activities. They efficiently generated reports, made frequent site inspections, received input, and tracked progress.

3.4 Monitoring and Evaluation

The implementing partners used a standard monitoring and evaluation approach for the HRDP. These include reporting on project execution status to the HDFC Bank on a regular basis. Furthermore, the HDFC Bank's programme implementation staff visited the project communities at regular intervals to review the project work sites, participated in training programmes and awareness workshops, as well as connected with project recipients.

HDFC Bank has specific requests for project information from the implementing partner. The implementing partner manages the project data mostly in spreadsheets, which include information of the village-level activities conducted, beneficiaries mapped against each of the project activities, expenditures, and so on. In addition, the implementing partner submits to HDFC Bank a yearly progress report on project activities, as well as a strategy for the following year. This document is the primary source of information, providing an overview of the actions carried out, outputs produced, and outcomes attained.

The impact of ACF activities was evaluated using four criteria: relevance and convergence, impact and effectiveness, sustainability, and replicability. This is backed up by the creation of a Holistic Rural Development Index based on selected indicators. The impact (Table 11) of each activity has also been calculated and classified as high, medium, or low impact. The annexure goes into greater detail on these.

4 Study Findings

This section provides the analysis of the profile of the respondents covered in the eight villages of Ambikapur block of Surguja district in Chhattisgarh.

Figure 6: Income Sources of the Respondents (n=411)



Figure 8: Education status of the respondents (n=411)

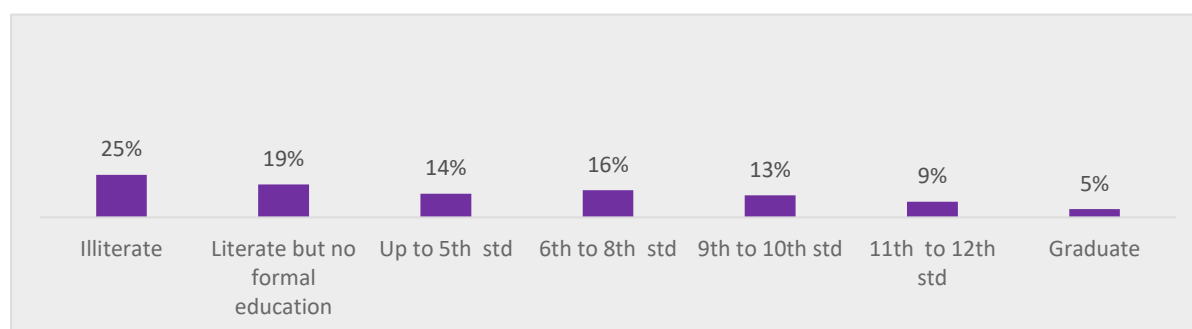
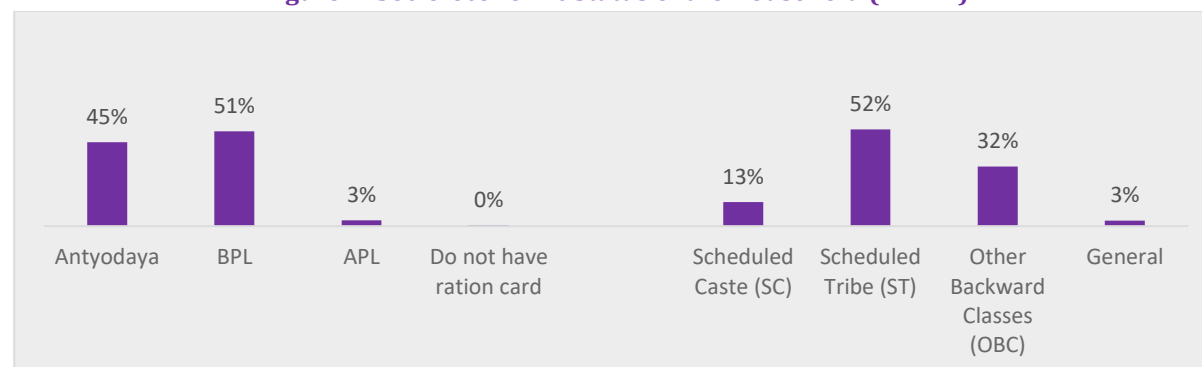


Figure 7: Socio-economic Status of the Household (n=411)



The income received by the majority of the participants is derived from agriculture, accounting for 92 percent, while 74 percent of the participants are engaged in wage labour. Additionally, 56 percent of the respondents reported income from livestock. Other sources of income are comparatively less common. The effective literacy rate in Ambikapur is 88.2 percent (2011 India Census). However, about 25 percent of the respondents were illiterate, and around 19 percent were literate but with no formal education. It is noteworthy, however, that 5 percent of the respondents had graduation degrees.

In Ambikapur, **more than 50 percent of the respondents hold BPL cards, while 45 percent hold Antyodaya cards, reflecting the poverty of the region.** The block also sees about **52 percent of tribal respondents**, as it is a forest region in the mountains. The state records about

32 percent (2011 India Census) as the tribal population. Interventions to help improve their lives was a crucial need.

The following table provides a summary of the quantum of activities carried out under each activity category of the four thematic areas (see Table 6).

Table 6: Summary of Quantum of Beneficiaries Reached Under Each Activity Category of Four Thematic Areas

Activity Category	Activities	No. (as provided by the Implementing Agency (IA)) of beneficiaries
NRM		
Irrigation Management	Installation of drip	16
	Installation of sprinkler	15
	Lift Irrigation system	41
	promotion of solar pumps	6
Water management-agriculture	Check dam	30
	Gabion structure	10
Farm Management	Mulching	100
	SRI cultivation	725
	Farm bunding	57
	Land treatment (trenching)	8
	Seed distribution	500
	Promotion of sericulture	14
Clean Energy	Solar streetlights	50
	Solar drinking water supply	49
ST&LE		
Agriculture Training and Support	Farm field school	563
	exposure visit	120
	Construction of vermi-compost pits	25
SHG-Based Women Empowerment	Training for SHG members	186
	Capacity building of SHG through 6	519
	Module training	174
Entrepreneurship Development	Training on IGA	174
	Tailoring	10
	Poultry	42
	Fisheries	79
	Tent house	15
Livestock management	Masala unit	13
	Vaccination camp	258
	Animal shelter support	22
	Fodder development support	50
	Manjers	40
	Goat manure making	5
H&S		
Health	-	Not applicable
Sanitation	Household wastewater soak pits	283
Kitchen Garden	Seeds	547
	Training	725
	Demonstrations	547
PoE		PoE
Educational Institutions Development	School building renovation	869
	BaLA	552
	Drinking water posts/RO filters	869

The following section highlights the key findings from the field survey conducted to assess the impact of the project after its completion.

4.1 Natural Resource Management

Under NRM, water conservation and farmer support for better yield were prioritized. The several trainings on improved farming techniques, water interventions, and distribution of seeds have resulted in better productivity and increased income from agriculture. This was important in the area as availability of good quality seeds was an issue. The number of beneficiaries is mentioned in the above table (Table 6).

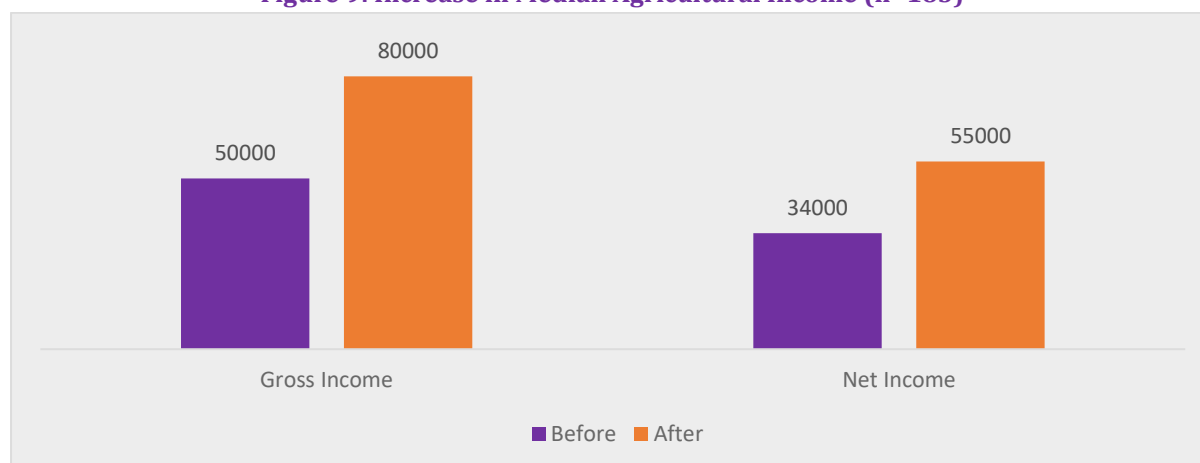
The objective of NRM interventions was to improve land/ crop productivity and ultimately increase farmers' agricultural income through increased access to farm management infrastructure and irrigation mechanisms. The aim also was to raise the adoption of clean energy solutions. The sections below focus on the impact created with regard to these objectives.

4.1.1 Income from Agriculture

Under the agriculture interventions, three broad categories of implementation were employed: irrigation, water management, and farm management. The irrigation interventions included installing drip and sprinkler systems, lift irrigation systems, and promoting solar pumps. For water management, building check dams and gabion structures were the two main interventions. The farm management interventions included mulching, the System of Rice Intensification (SRI) cultivation method, farm bunding, trenching, seed distribution, and promoting sericulture.

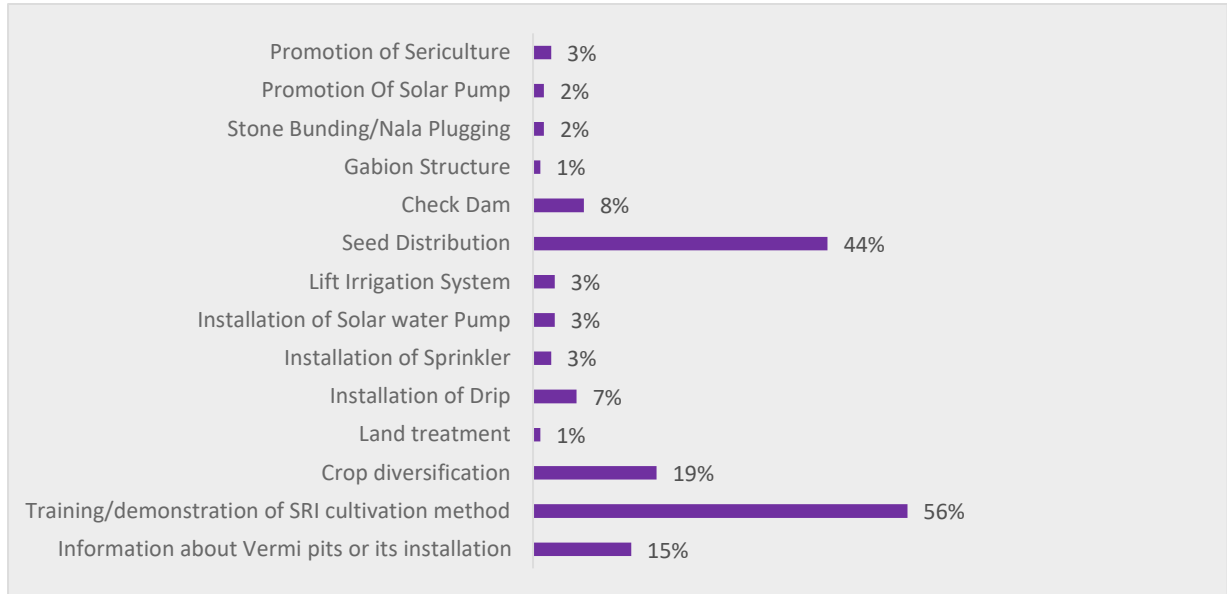
Approximately **47 percent of survey respondents reported benefiting from agricultural activities. Seed distribution (63%) and training for the SRI cultivation method (91%)** were among the most utilised interventions. Respondents indicated a **rise in net income within the project areas, with 95 percent reporting an increase.** The **average gross income rose 60 percent** across the eight villages, while the **average net income rose 62 percent.** Some villages saw larger income increases than others. For example, the **average net income in Ramnagar rose 102 percent**, while **Kulhadi saw a 65 percent increase.** In Rukhpur and Ranpur Khurd, the average gross income increased by 64 percent.

Figure 9: Increase in Median Agricultural Income (n=183)



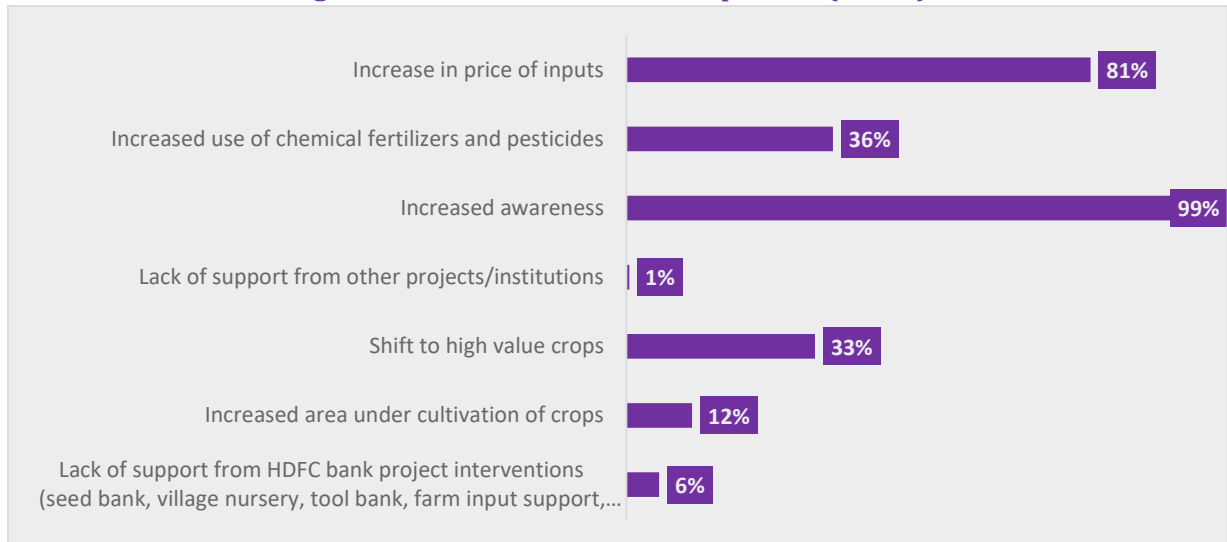
Following graph shows the interventions that have contributed to the increase in income:

Figure 10: Interventions that have Contributed to Increased Income (n=183)



Nearly all the respondents have stated that the price of input cost has increased. In spite of this, observing an increase in income is commendable. The major reasons for the increased input costs as reported by the respondents are as follows.

Figure 11: Reasons for Increased Input Cost (n=191)



The increased income can also be attributed to the expanded area of irrigated land. **The average irrigated land prior to the intervention was 2.2 acres, but following project implementation, it has increased to 2.7 acres.** Construction of check dams and trenches have been especially beneficial. The check dam built in Rukhpur serves multiple purposes. It irrigates **approximately 35-40 acres of surrounding land** during drier seasons. Farmers have also introduced fish to the river as a potential income source. In Ranpur, where the terrain is hilly, farmers had faced severe flooding at the foothills during monsoons. Houses and farms were severely flooded. A trench was constructed, which farmers reported viewing favourably. The trench connects to a channel that aids water storage and groundwater recharge. Farmers living at the foothills can now successfully grow two crops on their land while living safely. Several migrated to these regions in search of livelihoods.

Figure 13: Check-dam in Rukhpur

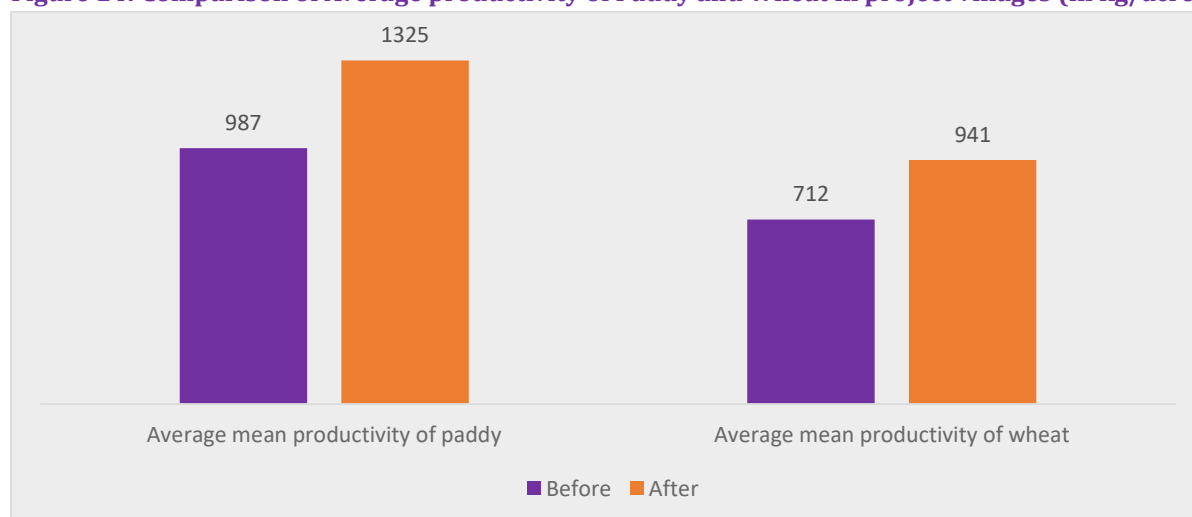


Figure 13: Trenching in Ranpur



Chhattisgarh is known as the “rice bowl” of India. Approximately **97 percent of respondents indicated that paddy production has increased**. Several farmers (22%) have also begun cultivating wheat, and **93 percent of them reported increased wheat production**. The **average mean productivity of rice rose by 34 percent**, while **wheat productivity increased by 32 percent**. The state average productivity for rice in Chhattisgarh is 1300 kilograms per acre³. The average rice productivity in the 8 project villages is at par with the state average. **The average wheat productivity in the project villages is 95 percent higher than the state average of 483 kilograms per acre⁴**.

Figure 14: Comparison of Average productivity of Paddy and Wheat in project villages (in kg/acre)

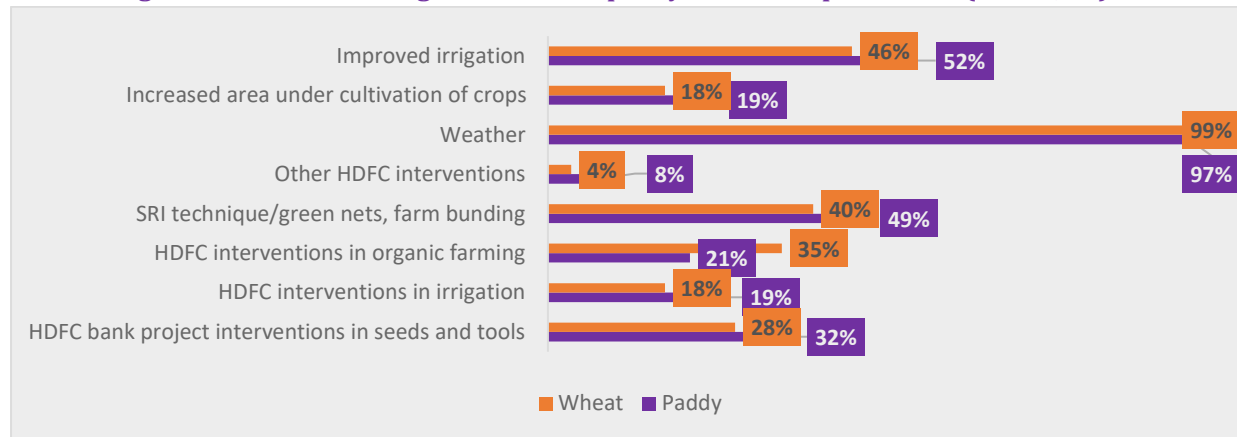


³ Chhattisgarh's paddy acreage falls nearly 8% in 2023 kharif season

⁴ [CEIC Data](#): Agricultural Yield: Foodgrains: Wheat: Chhattisgarh

This increase in productivity can be attributed to various factors, including HDFC interventions such as training on SRI technique, farm bunding, improved access to irrigation, and others, as shown in Figure 15. Many of these interventions directly led to availability of water during the drier seasons of the year, due to which farmers were able to grow more than one (monsoon dependent) crop on their land.

Figure 15: Factors leading to increase in paddy and wheat production (n=182, 85)

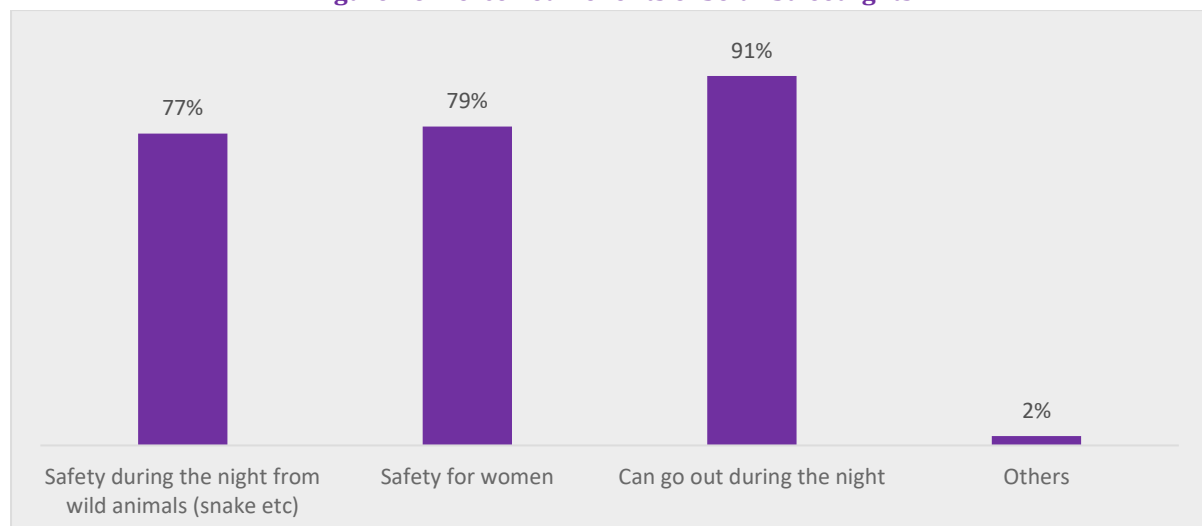


4.1.2 Use of Clean Energy Solutions

The main interventions that were implemented under clean energy were installation of 50 solar streetlights, and solar water pumps, which has been covered in the Drinking Water section. The solar streetlights are especially helpful during the winter season when darkness envelops the region as early as late afternoon.

During interaction with the community, it was found that several lights were not in working condition. As they were not trained in fixing it, it was expensive for the residents to get the lights repaired. Hence, it remains dark in some parts of the villages.

Figure 16: Perceived Benefits of Solar Streetlights

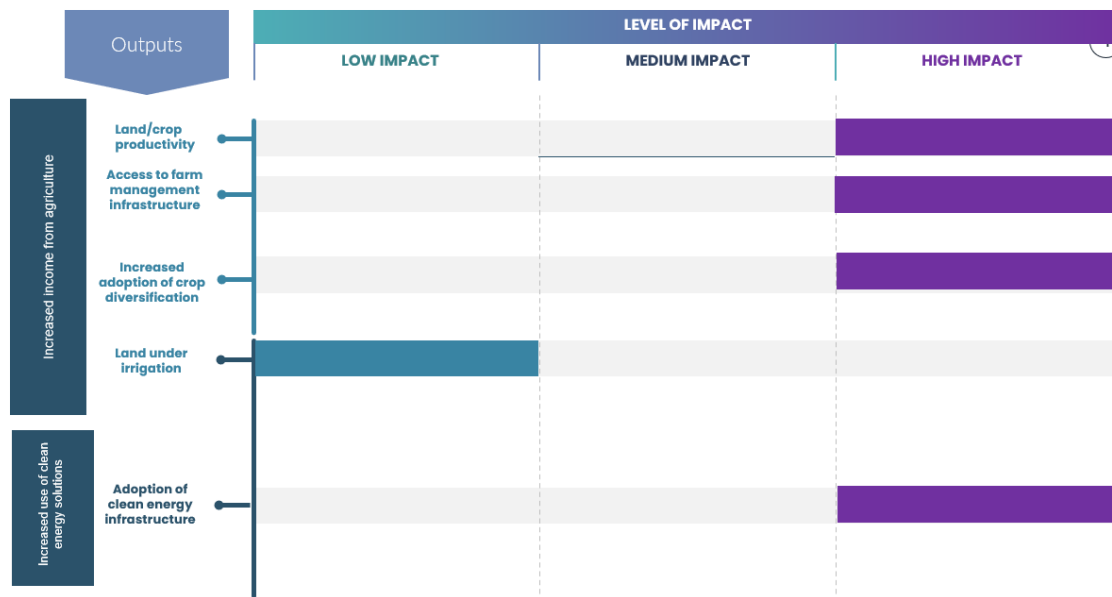


4.1.3 Impact Observation

Land and crop productivity, access to farm management infrastructure, and increased adoption of crop diversification shows high impact on the beneficiaries. Land under irrigation shows

medium impact as it was limited to only farmers participated in the project rather; it had the potential to reach more farmers. Adoption of clean energy has seen high impact as it has reached a greater number of beneficiaries. The specifics of impact calculation can be seen in Table 11.

Figure 17: Overview of Project Effectiveness and Impact of Interventions-NRM



4.1.4 Case Study

Boosting Silk Production Through Sericulture Support

The sericulture farmers of Rajpuri used to collect silk worms from the forest, but this was a troublesome process requiring permissions and monitoring the worms overnight while fending off monkeys.

Three years ago, support from ACF and HDFC enabled a transition to sericulture structures for silk production. Ten farmers were each provided 100 female egg-laying moths, with each moth capable of laying around 40,000 eggs.

The eggs hatch and are carefully nurtured on canvas sheets, feeding on mulberry leaves. Cocoons form within 20-25 days of hatching. The raw silk extracted from the cocoons sells for around Rs 200/kg. While sericulture is not yet widespread in this area, there is hope for it to expand. Selling the silk can be challenging, as the nearest options are Raipur or other nearby cities. For higher prices, the silk must be transported long distances to Mysore or Bangalore, which carries risks.

However, the farmers are very happy with the quality of silk they can now produce thanks to the sericulture support. The structures and silkworm rearing techniques have boosted productivity and income generation through a traditional craft. With continued backing, sericulture could flourish as a beneficial livelihood in this community.



Image 1: Mulberry plant

Image 2: Raw silk

Image 3: Shed where silk worms are stored

4.2 Skill Training and Livelihood Enhancement

Under ST&LE, activities included women empowerment and training the farmers in diverse agricultural practices. Workshops and training sessions have covered a range of farming techniques, such as the application of organic manure, construction of vermi-compost pits, timely use of fertilizers and insecticides, and the adoption of conservation agriculture practices. These initiatives have been well-received by local farmers, addressing a significant need given the predominant occupation of many households in agriculture. Moreover, through the support of women-led Self-Help Groups (SHGs), women have received training and opportunities to generate income, enabling them to financially contribute to their families. Participants in this project have expressed satisfaction in their newfound ability to support themselves and their households. Additionally, interventions in livestock management have constituted a significant aspect of the program.

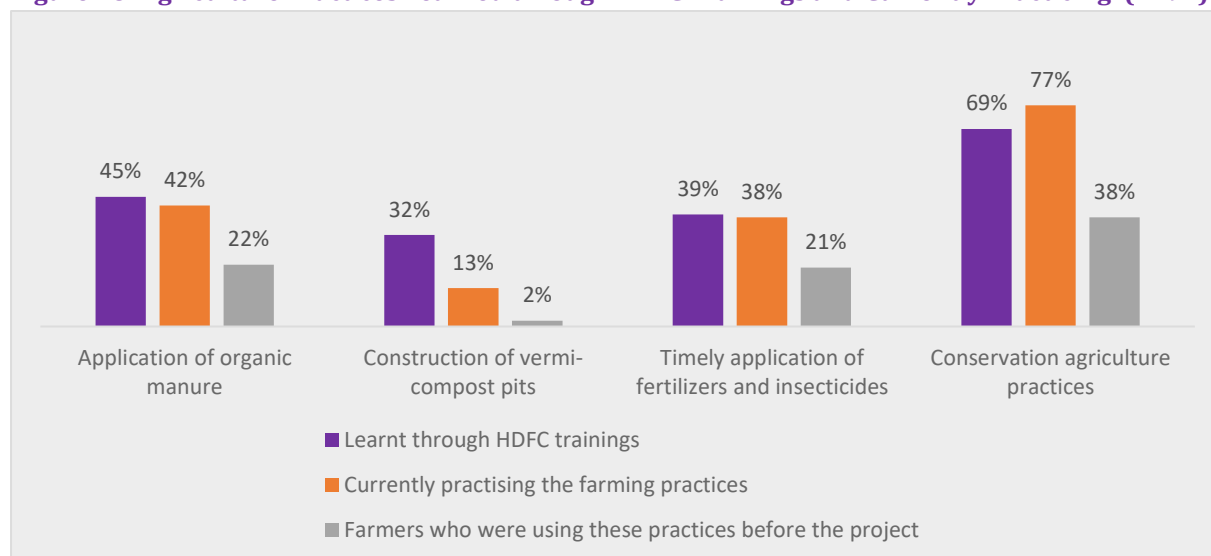
4.2.1 Agriculture Training and Services

The project carried out a number of initiatives to support sustainable agriculture. Farm field school, exposure visits, and creation of vermi-pits improved soil quality and promoted crop growth. Optimal crop protection and nutrition were ensured by the timely application of fertilisers and insecticides. Minimal tillage and application of organic fertilizers were examples of conservation agriculture techniques that aided in soil conservation and water efficiency. These interventions enhanced agricultural sustainability and productivity, enhancing the livelihoods of the community and the environment. The respondents state that the trainings have been very useful.

The community's adoption of sustainable agricultural practises has greatly benefited from HDFC trainings. Most of the **farmers reported HDFC and ACF trainings as the source of awareness** of certain practices, such as **application of organic manure (97%), vermi-composting (100%), timely application of fertilizers and pesticides (97%), and conservation agriculture practices (97%)**. The farmers were able to learn these through farmer field schools and exposure visits conducted by ACF under the HRDP.

Several farmers are still utilising these practices even after the completion of the programme as seen in Figure 18. This reflects the sustainability of the implemented interventions.

Figure 18: Agriculture Practices Learned through HDFC Trainings and Currently Practicing (n=97)

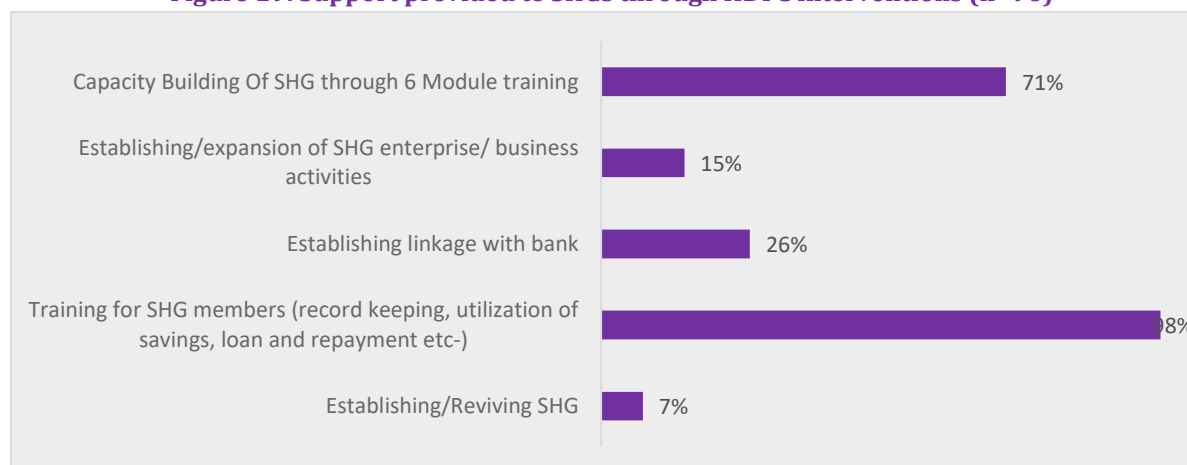


More than **89 percent** of the respondents have stated that the productivity of crops have increased. Subsequently, **79 percent** of them have also reported that their income has increased, which is corroborated in the section 4.1.1. In addition to this, improved soil health (**40%**), reduced crop loss (**40%**), and improved pest management (**17%**) are also some benefits observed by the respondents.

4.2.2 Economic Empowerment through Collectivization

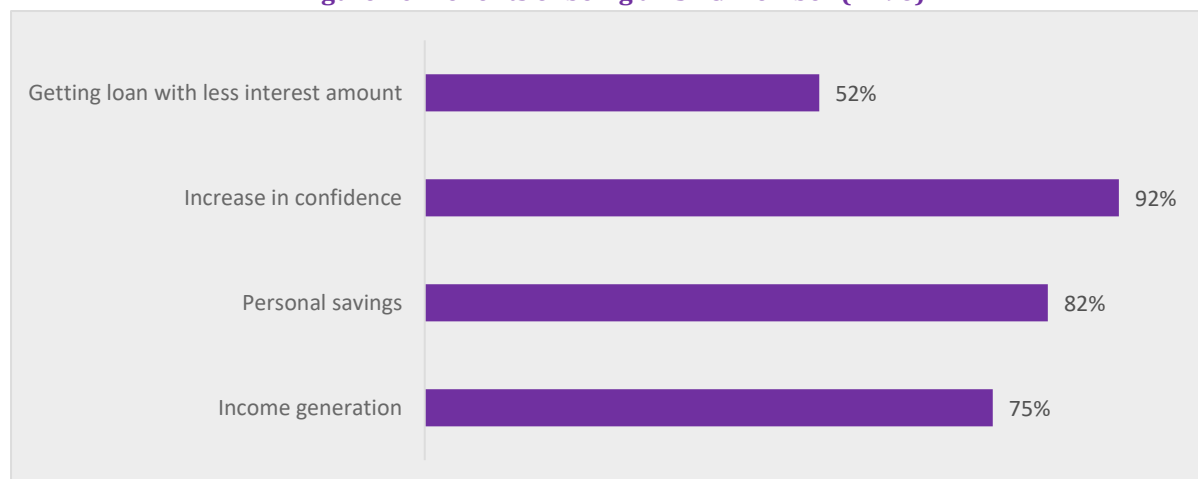
Approximately **23 percent** of the respondents have received support for SHG development through HDFC. As several SHGs were already operating in the region, more focus was given towards providing training to the SHG members, capacity building, among other interventions.

Figure 19: Support provided to SHGs through HDFC interventions (n=96)



The majority of members within their respective Self-Help Groups (SHGs) have indicated that their group remains active. They **engage in various activities**, including **meetings (91%)**, **savings (66%)**, **bookkeeping (55%)**, **meeting minutes (51%)**, **attendance records (46%)**, **internal lending (21%)**, and similar undertakings. In instances where SHGs received assistance in establishment or revitalization, **ACF, through HDFC interventions, aided the community by mobilising members (86%)**, **assisting in the organization of meetings (86%)**, and **supporting them in maintaining records (43%)**. SHG members have also articulated numerous benefits of their membership, as illustrated in Figure 20.

Figure 20: Benefits of being an SHG member (n=96)



It is noteworthy that these advantages contribute significantly to the enhancement of the lives and financial autonomy of women. In interactions with such women, their keen interest and eagerness to perpetuate their enterprises and activities through acquiring diverse skills and experimenting with new approaches are admirable. To facilitate this progress, HDFC has delivered training on various aspects of SHGs, **encompassing SHG management (83%), bookkeeping (67%), lending and savings management (50%), and enterprise and business activities (23%).**

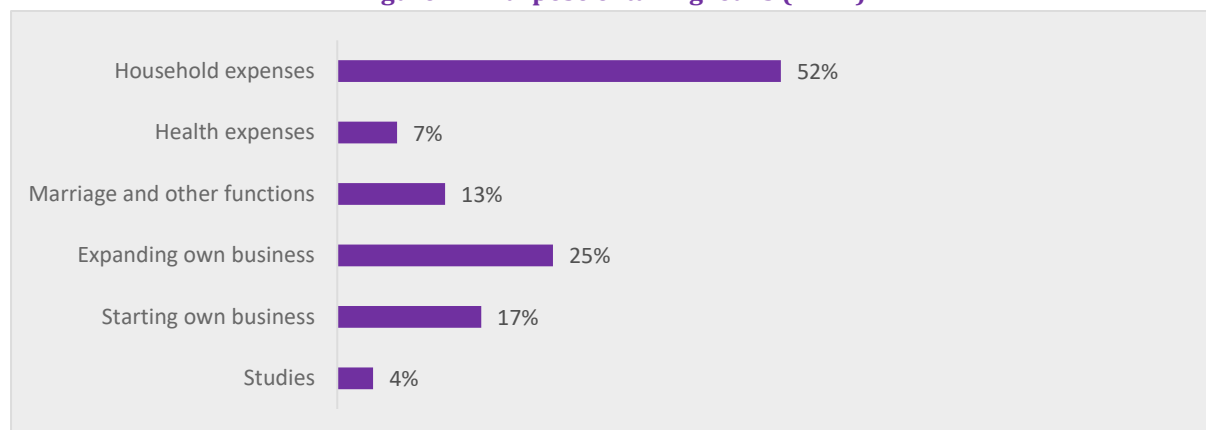
Numerous SHG members underwent **training in diverse enterprises and business activities** aligned with their interests. These included **tailoring (4.5%), goat farming (23%), poultry (23%), fisheries (41%), beauty parlour (9%), and masala unit (32%).** Respondents have affirmed that these training sessions have proven beneficial to them, as shown in Figure 21.

Figure 21: Benefits of training sessions (n=94)



Over 70 percent of SHG members have accessed loans from their respective SHGs, **underscoring the members' confidence in their ability to repay through their own diligent efforts.** The **average loan amount** obtained is approximately **Rs. 35,000**, with an **average repayment rate exceeding 50 percent.** The purposes for which loans are utilised vary, and the detailed breakdown is provided in Figure 22.

Figure 22: Purpose of taking loans (n=71)



In general, HDFC and ACF have contributed favourably to the empowerment of women, which has led to SHG members actively seeking out additional employment in order to improve their life.

4.2.3 Skill and Entrepreneurship Development

Training for skill and entrepreneurship development has predominantly been carried out through Self-Help Groups (SHGs). Business activities are collectively undertaken by SHGs rather than individuals. Consequently, the number of responses aligns with the count of SHGs engaged in income-generating activities (IGA).

Training has been imparted in various IGAs, as detailed in section 4.2.2. These encompass fisheries, tailoring, goat farming, poultry, masala unit, and beauty parlour. Participants have received instruction in business management, marketing support, enterprise establishment, and information on production techniques and practices.

Regarding income, a significant proportion of SHG members lacked a source of income before the intervention. However, with established business enterprises, they now earn an average of Rs. 2000 per month. In Malgawan, members have reported earning up to Rs. 10000 per month.

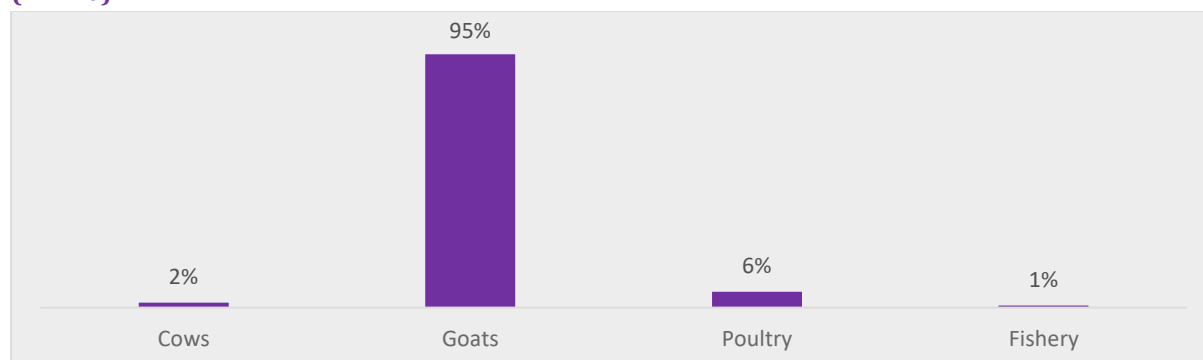
Detailed discussions on these enterprises are provided in the accompanying case studies.

4.2.4 Livestock Management and Training

Chhattisgarh is a state rich in livestock. ACF and HDFC recognized the need to support beneficiaries for management of livestock. **More than 65 percent of the respondents have availed benefits from livestock management.** Under livestock management, vaccination camps, animal shelter support, manjers, fodder development, and goat manure making have been the interventions that were conducted.

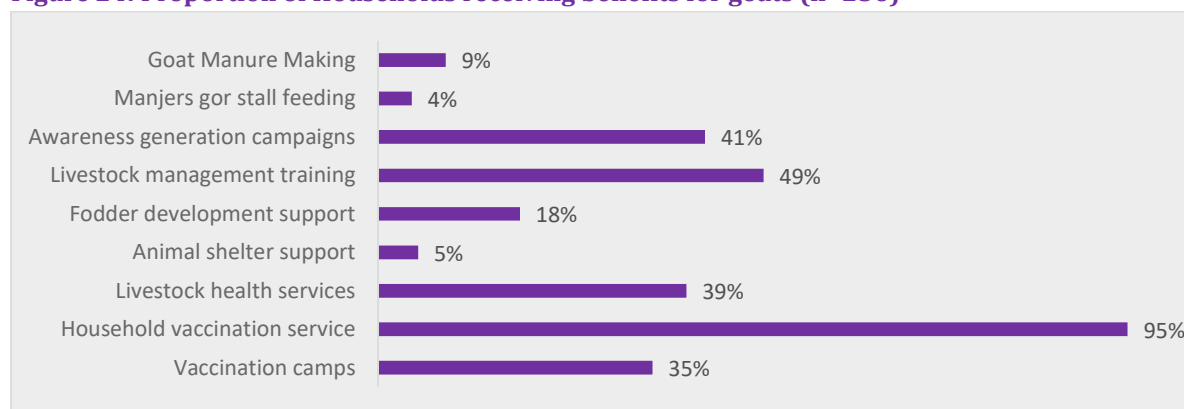
Goats are the most prevalent livestock found among the respondents. Beneficiaries have received support for various types of livestock, as described below in Figure 23.

Figure 23: Proportion of households that have received support from HDFC for different livestock (n=270)



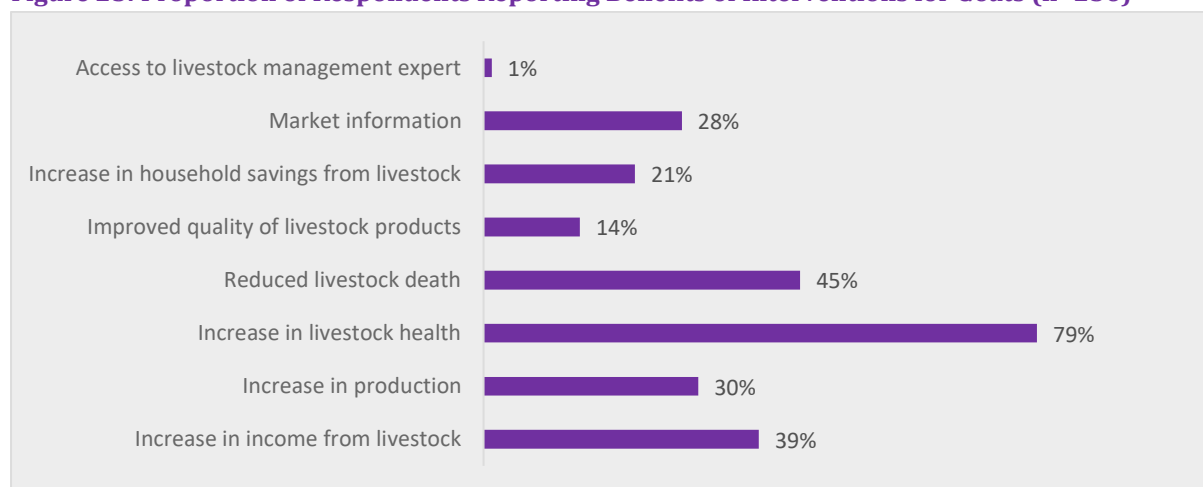
Vaccination camps, vaccination services, health services, livestock management training, awareness generation camp, construction of manjers, and goat manure making are some of the activities conducted. Due to the prevalence of goats in the area, improving management of goats has been a major focus.

Figure 24: Proportion of Households receiving benefits for goats (n=256)



These interventions have been highly beneficial for the beneficiaries owning goats. During interactions with them, they **have expressed their contentment** with the interventions. They have also stated that their goats are much healthier than before. This is observed even in quantitative data, as shown below in Figure 25.

Figure 25: Proportion of Respondents Reporting Benefits of Interventions for Goats (n=256)



Beneficiaries have also reported an increase in income from livestock. Based on median, **monthly income from livestock has increased by 50%**.

In addition to this, poultry has also been an area of intervention. More than 40 percent of the beneficiaries reported that they received animals, while other forms of support included **vaccination camps (6%), poultry health services (50%), poultry management training (94%), and awareness generation (81%)**. In addition to this, fish farming and bioflock (fish farming in cement tanks) has been a unique intervention in this area. This is further discussed in case studies below.

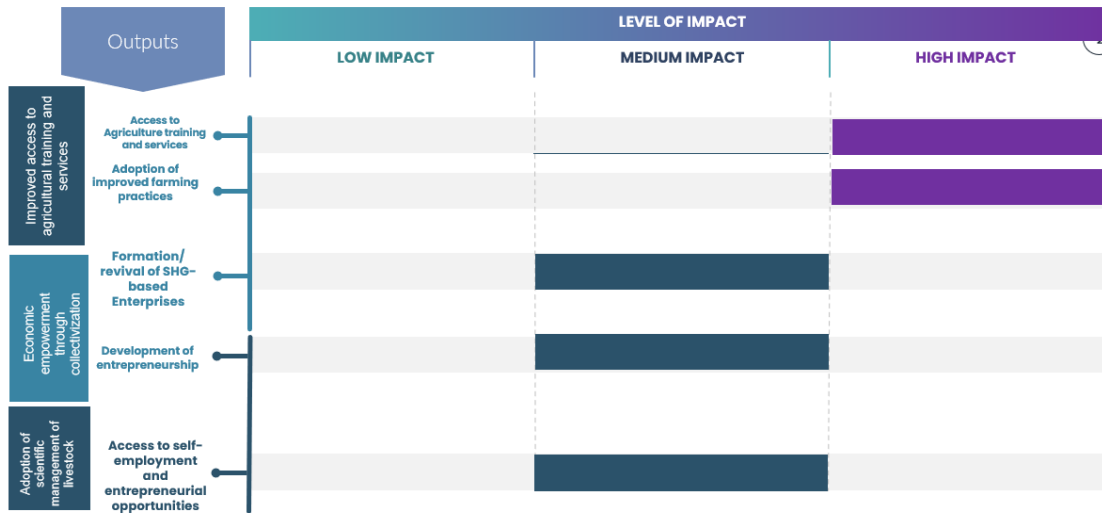
Figure 26: Poultry shed provision for Mahamaya SHG in Malgawan



4.2.5 Impact Observation

Interventions in entrepreneurship and agriculture training services has seen high impact. This can be backed by the increase in income from both of these interventions. Adoption of scientific approach for livestock management have had a medium impact on the beneficiaries as they were implemented on a much smaller scale. The specifics of impact calculation can be seen in Table 11.

Figure 27: Overview of Project Effectiveness and Impact of Interventions-ST&LE



4.2.6 Case Study

Empowering Sustainability through Fish Farming - Bajrang Bali SHG in Ghangri

Bajrang Bali SHG in Ghangri embarked on a transformative initiative by establishing a fish farming pond with the aim of enhancing both consumption and income through sales. The SHG secured a leased land for the pond at an annual cost of Rs. 6000. The total construction expenses amounted to Rs. 1,40,000, out of which the SHG contributed Rs. 40,000, and the remaining Rs. 1,00,000 was generously provided by ACF through HDFC. This funding covered various aspects, including labour costs, JCB rental, inputs, and miscellaneous expenses.

The pond accommodates three to five different local fish varieties, such as Mirgal, Kothari, and Dadva. The fish successfully grew to a size ranging from 1 kg to 1.5 kgs, demonstrating the effectiveness of the project. Approximately 35 kgs of fingerlings were introduced into the pond, resulting in a harvest of 300 kgs of mature fish. The earned revenue from the sales amounted to around Rs. 30,000, indicating a successful economic outcome. Currently, the fish continue to grow in the pond, albeit at a slower pace during the cold season. The group primarily sells their produce in the local weekly market and to hotels. While the project has proven successful for Bajrang Bali SHG, replicating similar ventures faces challenges, particularly in addressing water and financial constraints. The experience of this group highlights the need for strategic planning and innovative solutions to overcome hurdles and promote sustainable livelihoods.

This case study underscores the positive impact of community-driven initiatives, showcasing how SHGs, with external support, can contribute to local economic development and empower members with new avenues for income generation.



Fostering Celebrations and Sustainability - Jai Annapurna SHG's Tent House in Deogarh

Jai Annapurna Self-Help Group (SHG) in Deogarh ventured into the tent house business, driven by the constraints of limited space for other enterprises. Key findings are:

Faced with space constraints for alternative businesses, the Jai Annapurna SHG strategically decided to start a tent house, which proved an economically viable option.

The tent house business model involves renting out tents for events at Rs 1000 per tent. The SHG currently owns 8 tents. They hire labor at Rs 500 per day for setup. This generates steady income. With sufficient tents, the SHG supports community events, especially weddings, establishing themselves as a reliable resource.

Using tent house earnings, the SHG invested in a storage shed to protect materials from damage, ensuring asset longevity.

Over two years, the tent house has yielded Rs 40,000 - Rs 50,000 in net income after transportation costs, indicating financial success.

In conclusion, the Jai Annapurna SHG tent house exemplifies how strategic decisions tailored to local constraints can enable prosperous enterprises. The sustainable income benefits members and builds community economic resilience. This case study demonstrates the transformative potential of empowering SHGs with entrepreneurial opportunities.



4.3 Health and Sanitation

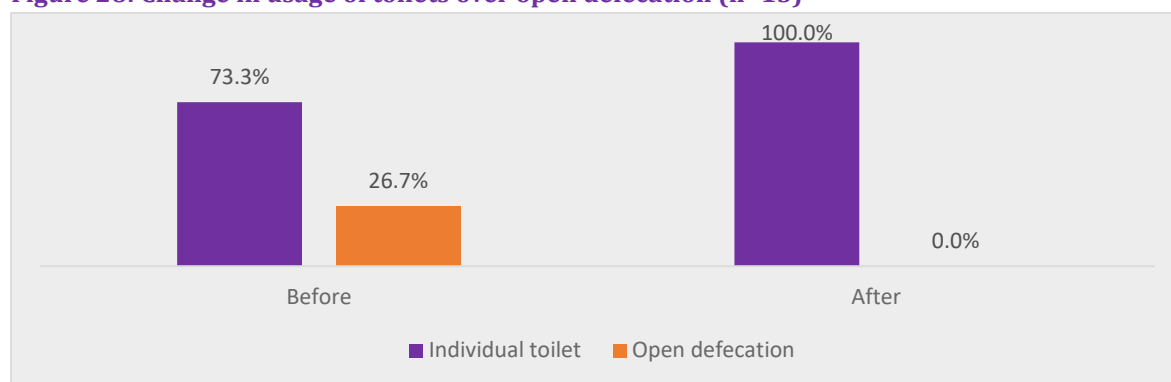
Few interventions have been supported under Health and Sanitation, while the primary focus had been on NRM and ST&LE. Under H&S, sanitation services and support to develop kitchen garden were provided.

4.3.1 Sanitation Infrastructure and Services

ACF supported households and communities in building wastewater soak pits and sanitation units. Approximately 33 percent of the respondents have received benefits from the implementation of the programme. The kind of support that the beneficiaries received were mostly construction materials for building the soak pits and sanitation units.

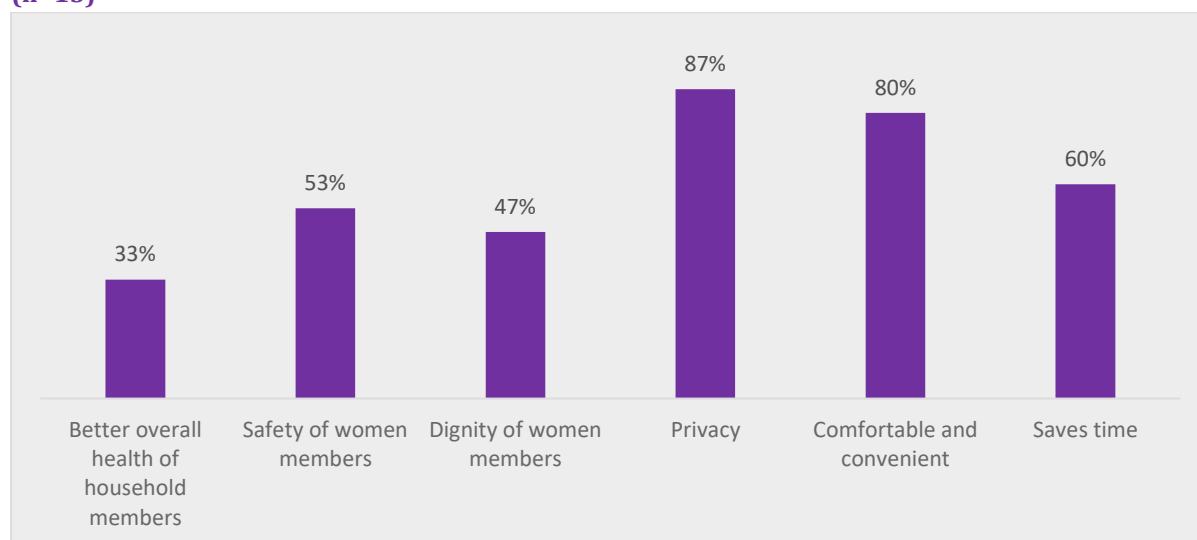
Due to the implementation of the programme, a change in habits has been observed, as indicated in Figure 28.

Figure 28: Change in usage of toilets over open defecation (n=15)



The implementation of sanitation services has led to significant benefits for the community, with 33 percent of survey participants noting an enhancement in the overall health of household members. Importantly, **53 percent underscored the heightened safety of women members**, illustrating the pivotal role that toilets play in cultivating a secure environment. The substantial figure of **47 percent concerning the dignity of women members** implies that access to toilets significantly contributes to the preservation of personal dignity. Additionally, the considerable percentages related to **privacy (87%)** and **comfort and convenience (80%)** underscore the transformative impact of toilets in fostering more favourable conditions. The reported benefits of **timesaving (60%)** affirm the increased efficiency resulting from enhanced sanitation facilities.

Figure 29: Perceived Benefits of HH/Community Sanitation Units/ Waste Management Services (n=15)



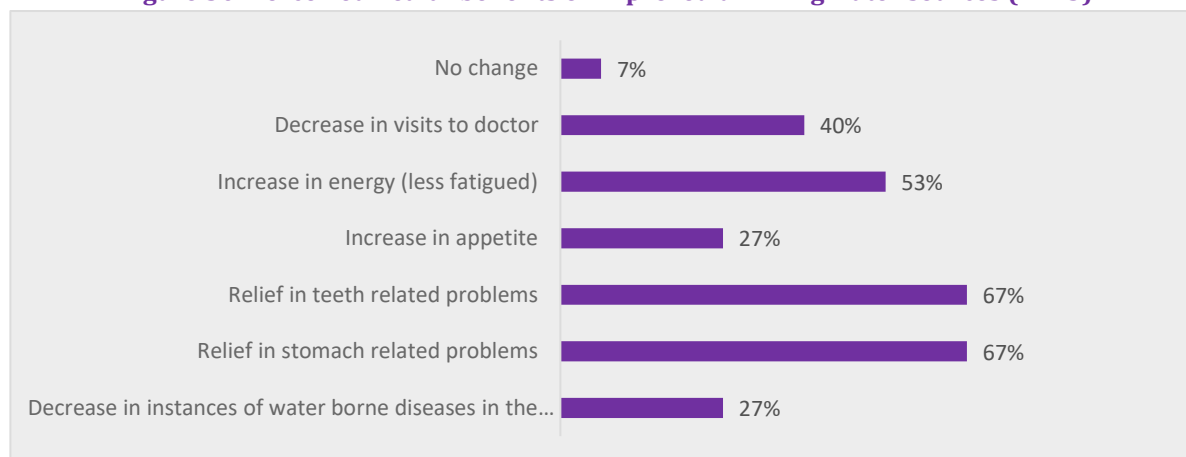
4.3.2 Drinking Water

Access to safe drinking has been one of the concern areas in this region, and ACF, in collaboration with HDFC Bank, have set up multiple community water tanks, solar drinking water supply, and community handpumps.

About **14 percent of the respondents have noted that they have received some sort of drinking water facility**. More than **26 percent of the respondents claimed that the source of their drinking water had changed**.

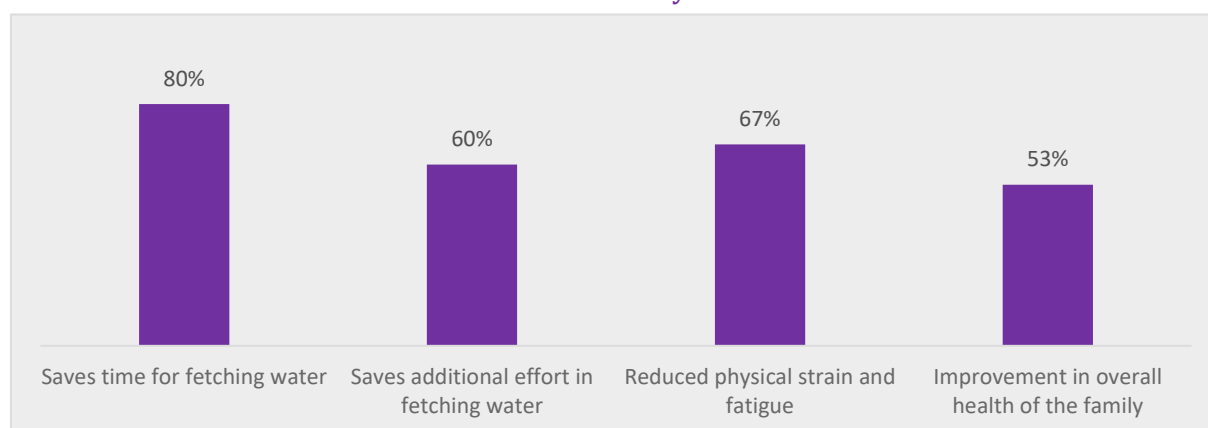
The intervention has impacted the community in a positive way, as indicated in Figure 30.

Figure 30: Perceived health benefits of improved drinking water sources (n=15)



Furthermore, the availability of drinking water has been extremely beneficial to the ladies in the households. About **80% of those surveyed said that it saves time when getting water**, while other respondents said that it requires less work and has lessened physical strain and weariness. Since rural Indian women have a tradition of walking great distances to gather water for their family, seeing positive outcomes like these encourages continued faith in the development sector.

Figure 31: Proportion of households who reported different help in women due to drinking water availability



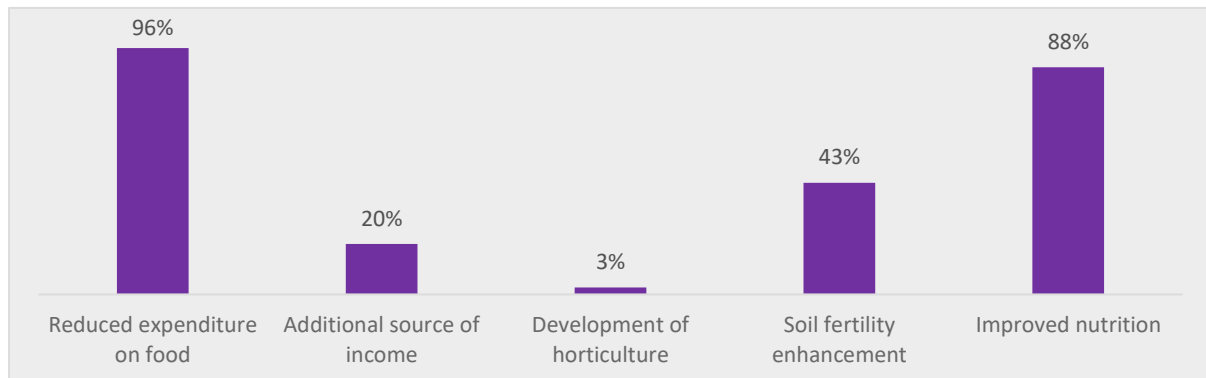
4.3.3 Kitchen Gardens

Under kitchen garden, **beneficiaries were supported with seeds (96%), training (89%)** to improve their gardening abilities, **demonstrations (8%), and provision of fertilizers and pesticides (3%)**. The distribution of seeds is a crucial support as it helped the beneficiaries begin their kitchen gardens. A sizable number of people have been able to successfully establish and maintain their kitchen gardens thanks to the provision of seeds and training. These initiatives support community improvement in food security, healthy eating practises, and self-sufficiency.

The respondents have mostly received seeds for growing brinjal, tomato, bottle gourd, coriander, fenugreek, and similar leafy vegetables, along with others. The **self-consumption of their produce by more than 80 percent of the households** results in the direct delivery of wholesome, fresh food to households.

More than **81 percent** of the respondents claimed that the amount spent on fruits and vegetables have decreased noticeably, saving an average of Rs. 200 per week. This is further corroborated with more than **95 percent** of the respondents reporting that *reduced*

Figure 32: Perceived Benefits of Kitchen Gardens

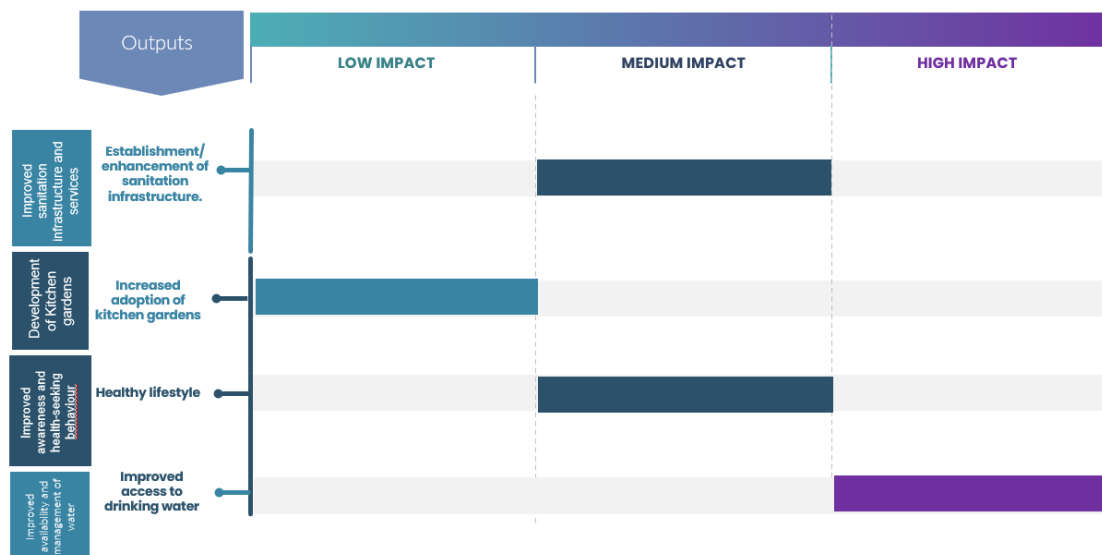


expenditure on fruits and vegetables are one of the top three critical perceived benefits of these kitchen gardens.

4.3.4 Impact Observation

High impact has been seen when it comes to interventions in drinking water. It is lower in adoption of kitchen gardens, but sanitation infrastructure has been a popular intervention, which shows a medium impact. Even though the scale of interventions was not as high as compared to ST&LE or NRM, it has still helped the beneficiaries. The specifics of impact calculation can be seen in Table 11

Figure 33: Overview of Project Effectiveness and Impact of Interventions-H&S



4.4 Promotion of Education

In the area of education, schools in Ambikapur's eight project villages have had their restrooms renovated, wall paintings, or BaLA installed. ACF has also executed other initiatives, such as establishing handwashing stations at one school and tidying up the school grounds.

4.4.1 Infrastructure in Educational Institutions

Drinking water posts, BaLA paintings, construction of washrooms for boys and girls were some of the interventions conducted in the schools in Ambikapur. The scale of these is further elaborated in Figure 34.

Figure 34: Interventions in Schools as Reported by Student Beneficiaries (n=29)

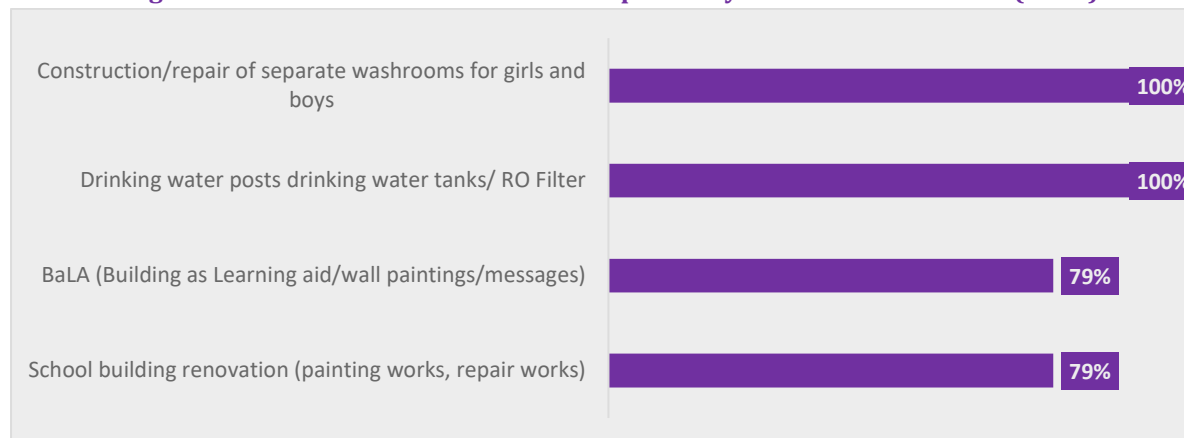


Figure 35: Water Filter Facility in Malgawan Middle School



The students have reported that they use all these facilities **frequently (every day or most days)**. More than **93 percent of the students say that due to the availability of safe and clean drinking water they now face fewer health issues and can spend more time in school. All the students say that now due to having separate washrooms for boys and girls they can spend more time in school and attend it regularly.** This is further corroborated by the responses given by teachers to the perceived benefits of these infrastructural changes (Figure 36).

Figure 36: Perceived Benefits of Infrastructural Changes (n=20)

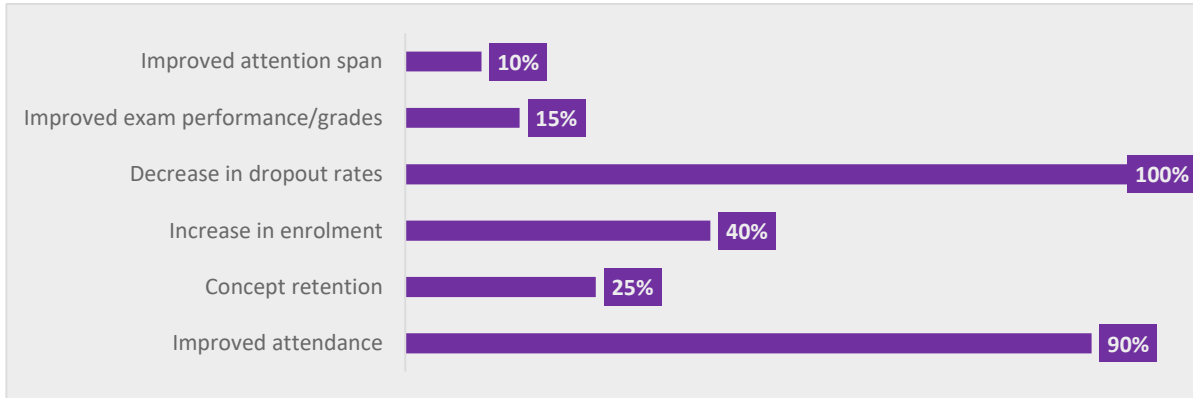
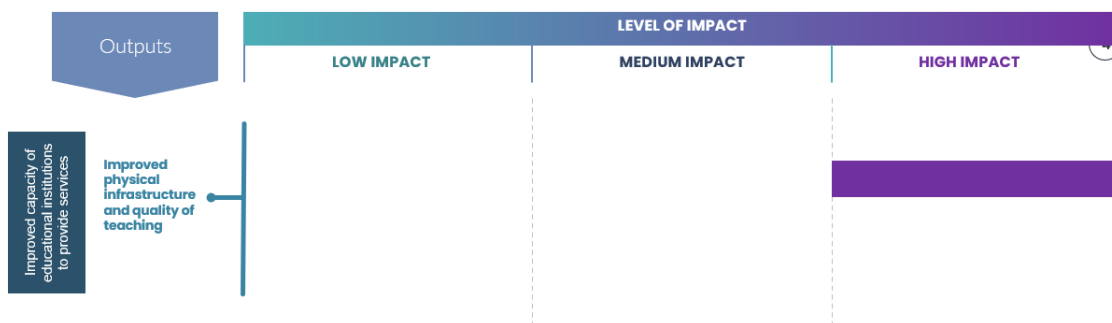


Figure 37: Separate washrooms for boys and girls in a school in Ramnagar



4.4.2 Impact Observation

Figure 38: Overview of Project Effectiveness and Impact of Interventions-PoE



Although the interventions in education were fewer, it had high impact. With time, the scale of intervention could have been increased, thus having a much wider impact on the school students and their learning. The specifics of impact calculation can be seen in Table 11.

In order to reach the greatest number of people possible, ACF and HDFC Bank have worked tirelessly across all sectors in this area. Due to the short duration of the project, however, it was unable to realise its full potential. The project could have gone on for a few more years, which might have had a more beneficial effect.

4.5. Holistic Rural Development Index

There are multiple dimensions involved in achieving the goals of rural development and the resulting blend raises agricultural production, generates new jobs, enhances health, increases communication, and provides better living infrastructure.

HDFC Bank adopted the Holistic Rural Development Index (HRDI) for evaluation of HRDP as it aims to achieve holistic rural development through a multitude of interventions that would lead to overall improvements across related dimensions. Therefore, the project introduced significant variability in interventions across districts. As such, it was not possible to ascribe a single impact indicator that might be able to accurately capture the overall performance of HRDP.

Since there was no baseline data available for this assessment, the Recall Method was used in the household survey to assess the change that beneficiaries experienced before and after project implementation. For this purpose, the enumerators were trained to ask beneficiaries to recall the value of critical indicators at the start of the project.

The impact indicators with baseline and endline data were selected and were assigned weights based on their relative contribution to the final expected outcome across all theme-wise interventions. While most of the indicators were found to be relevant for the study, a few needed modifications in accordance with the project, the study design and the information collected. The detailed methodology and indicators are explained in detail (see Annexure B).

Table 7: List of Indicators Used to Calculate HRDI

NRM	Proportion of farmers with net income above median
	Proportion of farmers reporting increased productivity of three main crops above median (before and after)
	Percentage of farmers reporting access to irrigation
H&S	Percentage of households reporting increase in use of fruits/vegetables from the nutrition garden
	Percentage of households reporting increase availability of drinking water facility
	Percentage of households with access to improved toilet facility
Skill	Percentage of SHG members reporting income above median from rural enterprises
	Percentage of households who getting skill training & reporting increase in income from job/enterprise/self employment
	Percentage of HH reporting income above median from livestock
Education	Percentage of respondents reporting increased access to functional school physical infrastructure (drinking water posts, separate washrooms, furniture etc.)
	Percentage of respondents reporting increased access to functional learning infrastructure (library, science labs, smart class, etc.)

Based on our study, the HRDI for Ambikapur has been calculated.

Table 8: HRDI for P0293

Domain	NRM		ST&LE		H&S		PoE		Total	
	Base line	End line	Base line	End line	Base line	End line	Baseline	Endline	Baseline	Endline
HRDI Score	0.09	0.14	0.04	0.15	0.08	0.14	0.07	0.13	0.28	0.56
%Change	56%		275%		75%		86%		100%	

A remarkable positive change can be seen. The theme-wise indicators were assigned varied weights to arrive at the composite HRDI score of 0.55 indicating a notable positive change toward the desired impact from the baseline score of 0.26. There is a 55 percent positive change in NRM but ST&LE has shown a positive increase by 650 percent, which could be attributed to the low baseline score and the extensive work done. The indicators used for the calculation of the HRDI score were not present at baseline. The low baseline score could also be because this could perhaps be the first instance of training received by the people in the area. H&S and PoE has shown increase (75% and 85% respectively) over the baseline.

5 Analysis of Assessment Criteria

As outlined earlier in 2.1, for each thematic area, activities completed by ACF were identified and assessed using the following criteria:

- Relevance and Convergence
- Impact and Effectiveness⁵
- Sustainability

The following sub-sections provide an analysis of the HRDP project with respect to each of these criteria.

5.1 Relevance and Convergence

Despite being a rapidly developing region, Chhattisgarh required an accelerated pace of development due to persistent challenges, notwithstanding various government schemes and provisions in place. These challenges encompass issues such as poverty, deficient infrastructure, and disparities in education. The project initiated by HDFC Bank and ACF aims to address these issues through a holistic and integrated approach. The project focuses on empowering communities in various sectors, including livelihoods, agriculture and natural resource management, health and sanitation, and education. The selected panchayats in the Ambikapur block were chosen based on their socio-economic criteria and proximity to operations. The goal of this integrated development approach is to uplift the communities, bridge the basic development gap in the region, and achieve sustainable growth and improvement in human development indicators.

ACF has been instrumental in helping farmers and beneficiaries access support through Government schemes. Through the Chhattisgarh State Renewable Energy Development Agency (CREDA), ACF has supported several farmers to obtain solar powered pumps and lights for their fields and storage spaces. The sprinkler and drip irrigation systems were acquired through government subsidy. ACF recognized possibilities and guided farmers to obtain good stuff.

The ongoing commitment of ACF is evident in its continuous efforts to contribute to community improvement. The organization adopts a collaborative approach by aligning its initiatives with government strategies to maximize impact and effectiveness.

5.2 Sustainability

Positive outcomes in terms of increased output and income have come from the agricultural interventions. More than 80% of the project's beneficiary farmers are currently using the practices and services for farm management. The project's inputs are still being used by the beneficiaries. The farmers are actively using the tools and equipment that have been given them.

Farmers believe that continued adoption of sustainable farming solutions will result in notable improvements in productivity, especially when it comes to organic farming. Seed distribution has proven to be one of the most important interventions, which has resulted in several farmers availing the HYV seeds and witnessing the increased production. The availability of water for irrigation has encouraged them to undertake more than one crop a year.

⁵ While from an evaluation perspective impact and effectiveness are two different aspects, in the report, these are used interchangeably.

The trainings provided through the HRDP for SHGs will support them in running the SHG for a long time. SHGs that have benefited from the project on starting their own enterprise have inspired many others to begin their own. Even though adequate support has been provided by the implementing partner in this regard, more handholding was requested. More focus on skill development for self-employment could have been undertaken such that they could be more independent.

ACF recognizes the need for such programmes to be conducted in the region and have continued to work in this region with HDFC and other partners.

6 Conclusion

6.1 Summary of Findings

The report highlights the findings of a project focused on natural resource management, skill training and livelihood enhancement, health and sanitation, and the promotion of education in Ambikapur

In NRM, the activities implemented included installing drip and sprinkler systems, lift irrigation systems, promoting solar pumps, building check dams and gabion structures, mulching, the System of Rice Intensification (SRI) cultivation method, farm bunding, trenching, seed distribution, promoting sericulture, solar streetlights, and solar drinking water supply. On average, **median net income rose from Rs. 34,000 to Rs. 55,000, showing an increase of 61 percent.** Post-intervention in Ambikapur, **paddy production rose from 1992.8 kilograms to 2833 kilograms** on average. The **mean productivity increased by 34 percent** from pre-intervention levels. The project has encouraged crop diversification, leading to changes in the proportion of farmers growing various crops. Wheat has been one of the main crops being grown after the intervention. Average **mean productivity of wheat has increased from 712 kgs/acre to 941 kgs** per acre post-project, which is **95% higher than the state average.** The implementation of clean energy interventions, including solar water pumps has helped around 14 percent of the respondents in accessing clean drinking water.

ACF implemented a successful program supporting households and communities in building wastewater soak pits and sanitation units. Around 33% of beneficiaries, mainly receiving construction materials, reported positive outcomes, including an **increase from 73% to 100% in individual toilet usage.** Significant benefits from improved sanitation facilities were noted, with **33% reporting enhanced overall health, 53% emphasizing increased safety for women, and 47% highlighting the preservation of women's dignity.** The program also addressed water concerns, providing community water tanks, solar drinking water supply, and handpumps, benefiting approximately 14% of respondents. Under the kitchen garden initiative, **beneficiaries received seeds (96%), training (89%), demonstrations (8%), and fertilizers/pesticides (3%),** resulting in enhanced gardening abilities and reduced expenditure on fruits and vegetables, **saving an average of Rs. 200 per week for over 95% of participants.**

The project, focusing on skill training and livelihood enhancement, implemented initiatives such as farm field schools, exposure visits, and vermi-pits to promote sustainable agriculture. HDFC-conducted trainings were instrumental, leading to increased awareness of practices like organic manure application and conservation agriculture. The sustained adoption of these practices is evident post-program completion. Survey results indicate positive outcomes, **with over 89% of respondents experiencing increased crop productivity and 79% reporting a rise in income.** Additional benefits include **improved soil health (40%), reduced crop loss (40%), and enhanced pest management (17%).**

HDFC's support for SHG development has been substantial, **focusing on training, capacity building, and assisting SHGs in remaining active and effective.** SHG members report **various benefits, including increased confidence, personal savings, income generation, and access to low-interest loans, significantly contributing to the empowerment of women.** Skill and entrepreneurship development training through SHGs have been pivotal, covering management, bookkeeping, lending, savings, and enterprise activities.

Livestock management interventions, conducted by ACF and HDFC, have **benefited over 65% of respondents**. Vaccination camps, animal shelter support, fodder development, and goat manure making have significantly improved goat management. Goats being the prevalent livestock, beneficiaries express contentment, reporting healthier goats, reduced livestock death, increased income, and a **50% median increase in monthly income from livestock**. Poultry management interventions, including animal support, vaccination camps, health services, and training, **have positively impacted over 40% of beneficiaries**. Fish farming and bioflock interventions, discussed in case studies, represent unique and successful initiatives in the region.

In Ambikapur schools, interventions such as **installing drinking water posts, implementing BaLA paintings, and constructing separate washrooms for boys and girls** have been successfully conducted. **Over 93% of students reported frequent use of these facilities**, attributing the availability of safe drinking water to a decrease in health issues and an increase in time spent at school. The provision of separate washrooms for boys and girls has positively impacted attendance, with **all students stating they can now spend more time in school and attend regularly**.

The HRDI score of **0.55 indicating a positive change of 111.5 percent toward the desired impact from the baseline score of 0.26**.

6.2 Recommendations

ACF and HDFC Bank together have worked tirelessly with the community to be able to provide them the necessary facilities to help lead their lives with dignity. However, to bridge the gaps in implementation and address the challenges, some recommendations are discussed below.

Recommendations that can sustain the project initiatives:

- To increase adaption and sustainability of farming practices, the implementing partner may ensure that farmers adhere to the agricultural techniques that have been taught and support follow-up visits with farmers. Experts in agriculture should preferably arrange these visits (ideally from KVK).
- The success of NRM activities is demonstrated by the notable increases in agricultural yield (up 34%) and median net income (up 61%). It is advised that interventions are focused on growing and promoting these practices to improve rural livelihoods even more. In the project area, ACF should keep funding NRM programmes and sustainable agricultural methods. It should also step up its activities in nearby villages. In addition to concentrating more on improved market access, input procurement, financial services, and capacity building, it can expand the FPOs' current efforts on income and agricultural practices.

Recommendations that can improve the design of the HRDP:

- Extending the project's duration from three to five years can aid in better programme implementation and maintenance.

Annexures

A Sampling Methodology

The quantitative household survey was administered for four thematic areas in each district.

A.1 Quantitative Sample Size Calculation

For this study, the formula for calculation of finite sample size for one-time cross-sectional survey (Cochran's 1977), has been deemed appropriate. The formula used to estimate the sample size for the quantitative household survey is given below:

$$N = Z_{1-\alpha}^2 \times P (1 - P) \times D_{eff} \div (S_e)^2$$

Where,

N= sample size

P= key characteristic of the population, set at 50%;

$Z_{1-\alpha}$ = standard score corresponding to the confidence interval, set at 95% (1.96 for two tailed test);

S_e = margin of error, set at 5%;

D_{eff} = factor for design effect, set at 1 (no design effect)

Thus, the estimated maximum sample size is 400.

A.2 Quantitative Sampling Methodology

Quantitative Sampling Methodology

10 project villages with the highest number of beneficiaries were selected for the study. The stages of sampling are explained as follows:

Stage 1 – Selection of beneficiaries:

The list of beneficiaries in the major components from all villages acted as the sampling frame for the project. This list was obtained from the implementing partner – ACF. Simple random sampling was done to select the required number of households from within the list. Since beneficiary selection was undertaken independently for each project, the selection of more than one beneficiary from a single household was probable.

Stage 2- Sampling for villages:

Sampling for each village was done using the Probability Proportionate to Size (PPS) method. The percentage of the total number of beneficiaries in a village was taken out from the total beneficiaries. This percentage was then converted into a sample per village. 5 villages with the lowest sample size were merged with other villages to make a total of 9 villages to be covered under the survey.

Stage 3- Sampling for activities:

The total sample of 400 was then distributed amongst various themes depending on the significance of activities done.

A.3 Qualitative Sample Size Calculation

Qualitative tools of In-depth Interview (IDI) and Focus group discussions (FGD) were administered for obtaining information about the remaining themes as well as to enrich the household survey information with a deeper understanding.

Since there was no baseline available for this evaluation, recall method was used in the household survey to assess the change that has happened over time. For this purpose, the respondents were asked to recall the value of critical indicators at the start of the program.

B HRDI Methodology

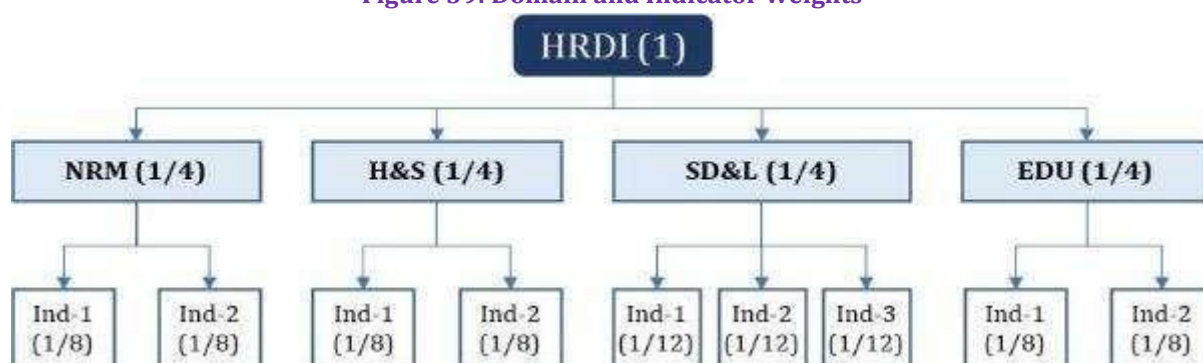
The outcome indicators included in the HRDI were obtained from different domains and are consequently measured on different scales. Therefore, to ensure the comparability of these indicators, all the indicators were converted into discrete variables such that the indicators could be measured between 0 and 1. Indicators such as productivity and income which were measured on a continuous scale were converted to discrete variables by setting a cut-off. The 50th percentile of these indicators at baseline was chosen as the cut-off point. Thus, a change in the indicator could be captured by recording the proportion of beneficiaries above the cut-off at two distinct points in time.

B.1 Indicator Weights

Weights were applied to each of these indicators, in similar lines with the HRDI calculation. Attribution of equal weights to all the domains were done in order to create a standard HRDI for each cluster.

Equal weights were assigned to each of the four domains. Further, the domain weight was equally distributed among the indicators of that domain; thereby ensuring that equal weightage of the domains was maintained overall.

Figure 39: Domain and Indicator Weights



The example above is indicative. The domains as well as indicators were different across all projects, and hence the weights were changed slightly for the purpose of the study, following the principle stated above.

Table 9: Example of HRDI Calculation

Thematic Area	Indicators	Formula
NRM	Proportion of farmers with net income above median	$(1/4) \times (1/3) = 0.083$
	Proportion of farmers reporting increased productivity of three main crops above median (before and after)	$(1/4) \times (1/3) = 0.083$
	Percentage of farmers reporting access to irrigation	$(1/4) \times (1/3) = 0.083$
ST&LE	Percentage of households who are getting skill training & reporting increase in income from job/enterprise/self-employment	$(1/4) \times (1/2) = 0.125$
	Percentage of HH reporting income above median from livestock	$(1/4) \times (1/2) = 0.125$
H&S	Percentage of households reporting increase availability of drinking water facility	$(1/4) \times (1/2) = 0.125$
	Percentage of households with access to improved toilet facility	$(1/4) \times (1/2) = 0.125$
PoE	Percentage of respondents reporting increased access to functional school physical infrastructure (drinking water posts, separate washrooms, furniture etc.)	$(1/4) \times (1/2) = 0.125$

Percentage of respondents reporting increased access to functional learning infrastructure (library, science labs, smart class, etc.)	$(1/4) \times (1/2) = 0.125$
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Once all the indicators were standardized and weighted, a sum of these weighted indicators was utilized to calculate the value of HRDI.

B.2 Analysis Plan

HRDI for each district was calculated at two points in time i.e., before and after HRDP and can be compared cross-sectionally to understand which indicators contributed to an increase or decrease in HRDI value. Since the value attribution of the indicators is in proportion, the HRDI value numerically ranges between 0 and 1. Once all the indicators are standardized and weighted, a sum of these weighted indicators are utilized to calculate the value of HRDI.

B.3 Method to Calculate HRDI

Step 1: All the indicators were cleaned and adjusted for outliers. Only those beneficiaries were considered for the analysis where data on outcome indicators was available for both pre- and post-intervention.

Step 2: A cut-off value was calculated by taking the 50th percentile for each indicator before HRDP (baseline). For instance, consider the indicator, Average Annual Income of Farmers. It was considered at baseline, then all the farmers were sorted across the seven blocks/villages in ascending order based on their income. The 50th percentile i.e., the median value of the income was taken. This median or 50th percentile was taken as the cut-off (baseline cut-off to be precise).

Step 3: Calculated the proportion of beneficiaries above the set cut-off value at the baseline for each indicator.

Step 4: Calculated the same at the endline i.e., the proportion of beneficiaries above the baseline cut-off for each indicator.

Step 5: Multiplied each proportion of the indicators with the set indicator weights.

Step 6: Summed up all the indicators (i.e., weighted sum) to calculate the HRDI value at baseline and endline.

Step 7: Calculated the relative change in the HRDI value from baseline to endline.

The calculation for Ambikapur of Chhattisgarh has been detailed below (see Table 10).

Table 10: HRDI Calculation for Chhattisgarh

Domain	Indicators	Baseline score	Baseline HRDI	End line score	Endline HRDI	% Change
NRM	Proportion of farmers with net income above median	0.17	0.09	0.25	0.14	56
	Proportion of farmers reporting increased productivity of three main crops above median (before and after)	0.09		0.16		
	Percentage of farmers reporting access to irrigation	0.09		0.15		
H&S	Percentage of households reporting increase in use of	0.01	0.08	0.16	0.14	75

Domain	Indicators	Baseline score	Baseline HRDI	End line score	Endline HRDI	% Change
	fruits/vegetables from the nutrition garden					
	Percentage of households reporting increase availability of drinking water facility	0.04		0.09		
	Percentage of households with access to improved toilet facility	0.24		0.33		
ST&LE	Percentage of SHG members reporting income above median from rural enterprises	0.03	0.04	0.17	0.15	275
	Percentage of households who getting skill training & reporting increase in income from job/enterprise/self employment	0.06		0.27		
	Percentage of HH reporting income above median from livestock	0.06		0.15		
PoE	Percentage of respondents reporting increased access to functional school physical infrastructure (drinking water posts, separate washrooms, furniture etc.)	0.27	0.07	0.50	0.13	86
	Percentage of respondents reporting increased access to functional learning infrastructure (library, science labs, smart class, etc.)	0.00		0.00		
Total			0.28		0.56	100

C Overview of Impact Calculation

Overview of Impact in the effectiveness section was calculated based on the averages of quantitative output indicators as demonstrated below.

Table 11: Impact calculation

Outputs	Output Indicators		Output Avg.	Impact Level
NA. Increased income from agriculture				
N. A1 Land/ crop productivity	NA1. (a) Proportion of farmers reporting an increase in production of crops that were supported under HRDP	99%	77%	High
	NA1. (b) Proportion of farmers reporting increased input efficiency after the intervention	56%		
	NA1. (c) Proportion of farmers reporting increased income from crops that were supported under HRDP.	99%		
	N.A1.i(d) Average increase in income from crops that were supported under HRDP (% change)	83%		
	N.A1.I (e) Average increase in productivity from crops that were supported under HRDP (% change)	48%		
	N.A1.i(f) Average decrease in input cost (% change)	NA		
N.A2. Access to the farm management infrastructure	N.A2(a) Proportion of beneficiaries satisfied with the quality of available services (in farm management)	67%	77%	High
	NA2. (b) Proportion of farmers reporting project interventions in seeds, tools, and irrigation leading to an increase in production	94%		
	NA2. (c) Proportion of farmers reporting project interventions leading to increase in income (average of top 4-5 crops)	90%		
	NA2. (e) Proportion of farmers currently practicing organic farming/conservation agriculture/other sustainable practices	38%		
	N.A2.(f) The proportion of farmers reporting an increase in the use of natural fertilizers?	86%		
NA.3 Increased adoption of crop diversification	NA3. (a) Proportion of farmers diversifying their crops with project support.	44.00%	50%	Medium
	NA3. (b) Proportion of farmers who report income increase due to crop diversification (base = farmers who adopted crop diversification)	56%		
NA.5 Land under irrigation	NA (4). (b). The proportion of farmers who received support for irrigation	10%	10%	Low
NC. Increased use of clean energy solutions				
NC1.Adoption of clean energy infrastructure	NC1 (a) Proportion of HHs using clean energy infrastructure (Base=all)	57%	71%	High

	NC1. (b) Proportion of households reporting benefits from using clean energy infrastructure (Base=clean energy beneficiaries)	85%		
SA. Improved access to agricultural training and services				
S.A.1 Access to Agriculture training and services	SA.i(a) Proportion of farmers who reported project training services are useful	77%		Medium
	SA.i(b) Proportion of farmers who demonstrate awareness regarding sustainable farming practices	47%	62%	
S.A.2. Adoption of improved farming practices	SA.ii(a) Proportion of farmers who adopt scientific agricultural practices	31%		Medium
	SA.ii(b) Proportion of beneficiaries reporting an increase in productivity due to better farm management	90%		
	SA.iii(c) Proportion of farmers reporting increased income	61%	61%	
SB. Economic empowerment through collectivization (Only for SHG members)				
SB.1 Formation/ revival of SHG-based Enterprises	SB.i(a) Proportion of members who received support with establishing/reviving SHGs	43%		Medium
	SB.i(b) Proportion of members who received support with establishing/reviving SHG enterprises	25%		
	SB.i(b) Proportion of members whose SHGs are currently functioning	96%	55%	
SB.2 Development of entrepreneurship	SB.ii(a) Proportion of SHG members who received training	51%		Medium
	SB.ii(b) Proportion of SHG members undertaking entrepreneurial activities	12%		
	SB.ii(d) Proportion of SHGs with increased savings	68%		
	SB.ii(e) Proportion of SHG members reporting improved income	69%	50%	
SC. Enhanced capacity for regular income generation				
SC.1 Enhanced employable skill development	SC.1(a) Percentage of youth who accessed skill development training	NA		Medium
	SC.1(b) Percentage of youth who report improved income through skill development	NA	NA	
SC.2 Access to self-employment and entrepreneurial opportunities	SC.2(a) Proportion of beneficiaries who established/ expanded entrepreneurial activities	15%		Low
	SC.2(b) Proportion of beneficiaries reporting improved capacity to undertake entrepreneurial activities	32%		
	SC.2(c) Proportion of beneficiary HHS reporting an increase in income	61%	36%	
SD. Improved capacity to generate income through livestock management				
SD.1 Adoption of scientific management of livestock	SD.I (a) Proportion of beneficiaries who received support in livestock management services	6%	35%	Low

	SD.i(b) Proportion of beneficiaries reporting an increase in income from livestock management	44%		
	SD.i(c) Proportion of beneficiaries reporting improved livestock health	89%		
	SD.i(d) Proportionate increase in average income from livestock	0%		
HA. Improved health infrastructure and services				
HA.1 Establishment/enhancement of health infrastructure and services	HA.i(a) Proportion of beneficiaries who gained access to health services	20%		Low
	HA. i(b) Proportion of beneficiaries reporting lifestyle changes due to improved access	62%		
	HA.i(c) Proportion of beneficiaries who consulted medical references from camps	0%	27%	
H.B. Improved sanitation infrastructure and services				
HB.1 Establishment/enhancement of sanitation infrastructure.	HB.i(b) Increase in no of HHs with access to sanitation infrastructure/ facilities	90%		High
	HB.i(c) Proportion of beneficiaries reporting benefits due to improved access	72%	81%	
H.C. Development of Kitchen gardens				
HC.1 Increased adoption of kitchen gardens	HC.i(a) Proportion of HHs reporting income gains from kitchen gardens	23%		Medium
	HC. i (b) No of HHs received seeds/training in the kitchen garden	81%		
	HC.i(c) No of HHs with improved vegetable/fruit consumption due to kitchen gardens	94%	66%	
HD Improved awareness and health-seeking behaviour				
HD.1 Awareness regarding health and sanitation practices	HD.i (a) Improved dietary practices/ reduced tobacco consumption/ improved physical exercise	62%	62%	Medium
HD.2 Adoption of positive health and sanitation practices	HD.ii(b) Increase in no. of HHs adopting proper solid waste management practices	20%		Low
	HD.ii(c) Increase in no of HHs adopting proper liquid waste management practices	46%	33%	
HE. Improved availability and management of water				
HE.1. Access to drinking water at household and community levels improved	HE.1. (b)The proportion of households reporting improved well-being due to the availability of clean drinking water.	92%	92%	High
Outcome EA. Improved capacity of educational institutions to provide services				
EA.1 Access to improved physical infrastructure	EA.i(a) Proportion of students/schools who report gaining access to functioning smart classrooms/ Bala/science labs/libraries/learning aid/furniture/sports equipment	57%		High
EA.2 Improvements in quality of teaching	EA.ii(a) Proportion of teachers regularly utilizing smart classrooms/libraries/smart class	90%	90%	
Outcome EB. Improved learning outcomes				
EB.1 Improved exam performance and subject confidence among students	EB.i(a) Proportion of students who gained access to coaching classes	NA		
	EB.i(b) Proportion of students who report improvements in access to reference material	NA	NA	

EB.i(c) Proportion of students reporting an increase in confidence in various subjects (lessons are easy to understand, more interesting, etc.)	NA		
EB.i(d) Proportion of students who received scholarships	NA		
EB.i(e) Proportion of teachers reporting improvements in learning outcomes due to infrastructural facilities at institutions (concept retention, attention span, and exam performance)	NA		

Change	Impact Level
0%-40%	Low
>40% - 70%	Medium
>70%-100%	High

D Two Sample Proportions Z Test

The two-sample proportions z-test is a statistical hypothesis test used to determine whether two proportions are different from each other. The null hypothesis of the test is that the two proportions are equal, while the alternative hypothesis is that the two proportions are not equal.

The test statistic for the two-sample proportions z-test is given by the following formula:

$$z = (p_1 - p_2) / \sqrt{p(1-p)/(n_1 + n_2)}$$

where:

p_1 is the proportion in the first sample

p_2 is the proportion in the second sample

p is the pooled proportion, calculated as $(p_1n_1 + p_2n_2)/(n_1 + n_2)$

n_1 is the sample size of the first sample

n_2 is the sample size of the second sample

The z-statistic is then compared to the standard normal distribution to determine the p-value of the test. A p-value less than alpha (typically 0.05) indicates that the null hypothesis can be rejected, and there is evidence to suggest that the two proportions are different.

The two-sample proportions z-test can be used to test for a difference in proportions between two groups of people, such as men and women, or two different brands of products. The test can also be used to compare the proportions of two different populations, such as the population of a city and the population of a state.

Here are some of the assumptions of the two-sample proportions z-test:

The two samples are independent.

The two populations are normally distributed.

The sample sizes are large enough ($n_1p_1n_2*p_2 > 10$) (Basically the Central Limit theorem should apply for the sampling distribution of the z-statistic can be approximated by the standard normal distribution.)

If these assumptions are not met, the results of the test may not be reliable.

The two-sample proportions z-test is a powerful tool for comparing two proportions. However, it is important to be aware of the assumptions of the test and to ensure that the data meets these assumptions before using the test.

Assumptions:

Independence: The two samples must be independent of each other.

Normality: The two populations must be normally distributed, or the sample sizes must be large enough ($n_1p_1n_2*p_2 > 10$).

Binomial distribution: The population does not need to follow a binomial distribution, but the test is more powerful if it does.

The z-test conducted for one indicator- **Proportion of farmers with income from agriculture above baseline median.**

Table 12: Z-test Conducted for P0293

Indicator	Proportion of farmers with income from agriculture above baseline median
p1 (proportion of first sample-endline)	75
n1 (sample size of p1)	145
p2 (proportion of second sample-baseline)	50
n2 (sample size of p2)	96
p	0.518672199
Calculation	0.06574396
z statistic	3.802630668
	Statistically significant at 95% confidence level (or $p < 0.05$)
P-value for the z statistic (calculated here: https://www.socscistatistics.com/pvalues/normaldistribution.aspx)	0.000072

E Sustainability Theme-wise Matrix

The project support provided demonstrated the capability to continue even after the program ended. The project's support to sustain improved outcomes are demonstrated below:

Support provided	Structures established	Technical Know-how	Usage	Maintenance
NRM				
Water Management- Irrigation	✓		✓	✓
Farm Management	✓	✓	✓	✓
Clean Energy	✓	X	✓	✓

Skill Training and Livelihood Enhancement				
Agriculture Training and Support	✓	✓	✓	✓
Livestock Management				
SHG Development	✓	✓	✓	✓
Skill Development		✓		
Health and Sanitation				
Health Camps/clinics			✓	
Kitchen Garden	✓	✓	✓	✓
Promotion of Education				
Educational Institution Development		✓	✓	✓

F Water Structures

The project supported the construction of water storage structures such as check dams. The details of the check dam is given below.

Sl No	Type of water structure	Number of villages	Total area of land covered (acre)	Type of beneficiaries	Number of beneficiaries
1	Check dam	2	102	Farmers	30