

Impact Assessment Study Of Holistic Rural Development Programme (HRDP)

Maharashtra



Prepared For:



HDFC Bank CSR

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Abbreviations

ASER	Annual Status of Education Report
CSR	Corporate Social Responsibility
FFS	Farmer Field School
FGD	Focus Group Discussion
FPO	Farmer Producer Organization
GoM	Government of Maharashtra
HDFC	Housing Development Finance Corporation Limited
HDI	Human Development Index
HRDP	Holistic Rural Development Programme
IDI	In-depth Interview
LSD	Lumpy Skin Disease
NCD	Non-Communicable Disease
NGO	Non-Governmental Organization
NRM	Natural Resource Management
NRLM	National Rural Livelihood Mission
NSSO	National Sample Survey Office
RO	Reverse Osmosis
SDG	Sustainable Development Goal
SHG	Self Help Group
SEQI	School Education and Quality Index
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization

Executive Summary

The impact assessment study focuses on measuring the impact of the Holistic Rural Development Programme (HRDP) of HDFC Bank that was **implemented by Ugam Gram Vikas Pratishthan in project clusters of the Washim block and Risod block of Washim district in Maharashtra**. The study focused on understanding the overall process undertaken by HDFC Bank and the partner organisation in implementing the project activities, key milestones achieved, impact created by these activities, challenges faced, and the manner in which such challenges were handled. The **key focus areas of the intervention were Education, Health and Sanitation, Natural Resource Management, and Skill building & Livelihood enhancement**.

For the impact assessment study conducted, both quantitative and qualitative methodologies were used. In this cluster, all eight intervention villages were selected for the study. Sample from each village was selected by using **Probability Proportionate to Size (PPS) sampling method**. The list of beneficiaries was obtained from the implementing partner- Ugam Gram Vikas Sanstha. Since beneficiary selection was undertaken independently for each programme, the selection of more than one beneficiary from a single household was probable. **The total sample size covered for the quantitative study was 411 households and for the qualitative, 10 focus group discussions and 10 In-depth interviews were conducted.** The impact assessment aims to critically and objectively evaluate the implementation and performance, to add value by showcasing successful initiatives, to recommend possible ways to add value by showcasing successful initiatives, to determine the reasons why certain results were achieved or not, to draw lessons, and to derive good practices and lessons learned

Figure 1 Overview of project impact

	Health and Sanitation	Skill Training and Livelihood Enhancement	Natural Resource Management	Promotion of Education
Overview of Activities	Health related input awareness session for the community Installation of RO filter	SHG strengthening training on agricultural practices, support for enterprise development	Check dam construction/ renovation, water budgeting exercise, crop diversification	Educational paintings, school repair work, installation of school library, smart class, RO filters
Areas of Improvement	43% reported improved health status 41% reported less spreading of disease	56% beneficiaries received support for establishing or reviving SHG	25% change in income due to agricultural interventions	Promoting quality education through infrastructure development
Challenges	No timely availability of filtered water from the RO units was established.	Participation from the farmers and community for agriculture-based training has been challenging	No grievance redressal mechanism Lack of knowledge dissemination	Capacity building of teachers required RO units not operated to maximum capacity
Recommendations	Options for convergence with the government scheme should be looked at in close consultation with the community	The institutional structure created under the program can be made more robust	A system may be put in place to ensure that the beneficiaries do not face any difficulties post-intervention	An asset management fund/committee needs to be established.

Natural Resource Management

Interventions under HRDP included the **Construction/ renovation of check dams, water budgeting exercise with the community, boar recharge, support for irrigation units, water budgeting exercise with the community**, activities to enhance agriculture production and productivity such as the adoption of mixed cropping, organizing camps for farmers and Field Schools (FFS). **This has increased the average land holding (owned and leased) from 3.1 acres to 3.2 acres (median values)**. Coupled with improved irrigation, agriculture interventions have been pivotal in enhancing production and decreasing the cost of cultivation and agricultural income from agriculture. **The overall net income change has been to the tune of 25%**. Of all the sample respondents, **62% and 20% reported an increase in income in Washim and Risod blocks respectively due to crop diversification**. About 40% and 15% of all the sample respondents reported an increase in productivity in Washim and Risod blocks respectively due to crop diversification.

Skill Training and Livelihood Enhancement

The activities under this thematic area include SHG-based women empowerment; agriculture training and support; livestock management; and entrepreneurship development. **The interventions focused on setting up micro-enterprises which resulted in the economic empowerment of the beneficiaries from the weaker section who were working as agricultural labourers before the intervention as per the qualitative findings**. The HRDP interventions for skill training and livelihood enhancement also incorporated activities like livestock rearing. The HDFC Bank project emphasized the skill development of the farmers mainly through agriculture training to improve their skills and knowledge. **Of all the respondents, 58% and 71% in Washim and Risod blocks respectively reported that they have learned practices such as the application of organic manure through HDFC intervention**. The training was provided on the preparation of organic manure like neemark and dashparni ark. The idea was to impart skills that enable farmers to enhance their crop productivity, improve the health of the soil through mixed farming, cultivation of horticultural crops, and information on how farmers can protect their crops from weather-related shocks. **As per the qualitative findings, training on the manufacturing of organic manure has subsequently reduced expenditure on health to Rs. 10000 which was earlier Rs. 15000 per year**.

Promotion of Education

Activities under education in Washim and Risod block, Maharashtra included (a) Educational Institutions Development: Educational paintings, school repair work, installation of school library - providing cupboards and books, smart class (digital screen and projector), installation of RO filter; separate washrooms for girls and boys, water storage tank and (b) Awareness Generation session. The intervention under HRDP in promoting education aligns with the central and state government objective of providing quality education to the marginalized section of society. **Due to project interventions, changes were observed in the enrollment and dropout percentage of students. In the Risod block, the dropout percentage of students decreased by 50% and enrollment increased by 50%. Similarly, in the Washim block, the dropout percentage of students decreased by 33% and enrollment increased by 67%**. Upgradation of physical infrastructure in terms of providing digital screens providing books and cupboards, educational paintings, and installation of RO filters has led to visible positive outcomes. **According to the qualitative findings,**

teachers reported that due to the awareness session held, there has been a 10% reduction in the rate of absenteeism. The awareness session on health and hygiene has resulted in a decrease in the rate of absenteeism owing to children falling ill before the intervention. The program supported the government's vision of providing quality education in terms of infrastructure and services which can empower the vulnerable sections.

Health and Sanitation

Health and sanitation are essential components contributing to rural development. In the programme villages, diverse interventions for improving health and sanitation were carried out. **Of all the sample respondents, 63% and 89% in Risod and Washim blocks respectively reported reduced expenditure on food because of the kitchen garden intervention. Similarly, 13% and 15% in Risod and Washim blocks respectively reported the creation of an additional source of income due to kitchen garden intervention.** Activities under the theme include (a) Health-related awareness input sessions for women and (b) Installation of RO filters in villages. Health awareness input sessions were organised where villagers were made aware of the importance of frequent health checkups, a balanced and nutritious diet, importance of menstrual hygiene for women. Under the intervention, the COVID-19 kit includes hand sanitisers and brochures that have information on avoiding the spread of the pandemic. Through the project interventions, there is a considerable improvement concerning a better understanding of the health issues in the villages. **The construction of soak pits proved to be beneficial for the sample villages as they recharged the groundwater and reduced the infestation of vector-borne diseases as per the qualitative findings.**

Table 1 Summary of key income indicators

Income Indicators (based on median)	Before	After	% Change
Average Net Income from Agriculture (INR)	40,000	50,000	25%
Average monthly income from SHG (INR)	300	2,000	57%
Average Productivity of 3 major crops (kg/acre)	2,066	2,133	3.2%

For natural resource management, three indicators have been used for the calculation of HRDI- the average productivity of crops (3 major crops) grown (quintal per acre), the proportion of farmers reporting net farm income above baseline median, and the percentage of farmers having irrigated land. For the thematic area of skill training and livelihood enhancement, three indicators have been used for HRDI calculation- the percentage of members reporting entrepreneurial activities undertaken by SHG, the percentage of respondents following agricultural practices (application of organic manure, construction of vermicompost pits, timely application of fertilizers and pesticides, conservation agriculture) and the proportion of beneficiaries reporting a monthly income of SHG from enterprise above the baseline median. For education, one indicator was used for HRDI calculation- the percentage of teachers who reported conducting sanitation, hygiene, and cleanliness awareness generation session. For the thematic area, health and sanitation, HRDI was calculated based on two indicators which are an increase in the percentage of people using individual toilets, and the percentage of people disposing of liquid waste into soak pits.

Table 2 Overall HRDI Score

Domain	NRM		Skill and Livelihood		Health and Sanitation		Education		Overall HRDI	
HRDI Score % Change	Baseline	Endline	Base line	Endline	Baseline	Endline	Baseline	Endline	Baseline	Endline
	0.12	0.13	0.04	0.05	0.10	0.13	0.11	0.12	0.38	0.43
	8.3%		25%		30%		9%		13%	

1. Introduction

1.1 Background of the Study

As part of HDFC Bank's CSR initiative, programs are supported to deliver holistic rural development. Within Parivartan, the "Holistic Rural Development Programme" (HRDP) is the flagship CSR program, under which non-governmental organizations across the country are supported to deliver development interventions. The vision of the program is to create happy and prosperous communities in terms of socio-economic and ecological development which is sustainable. The holistic approach supports the lives of communities by providing necessary inputs on issues like shaping economic independence through skilling, providing basic infrastructural development, and establishing a better ecosystem thereby promoting better living conditions. Developing human capital, natural resources, and infrastructure in poor and backward villages would bring about their socioeconomic transformation.

The program was implemented by an NGO partner Action for UGAM with the support of HDFC Bank. The major focus areas for intervention were Natural Resource Management (NRM), Skill Development & Livelihood Enhancement, Promotion of Education, Healthcare & Hygiene. However, the extent of the work in each village was undertaken based on the need and varied from place to place.

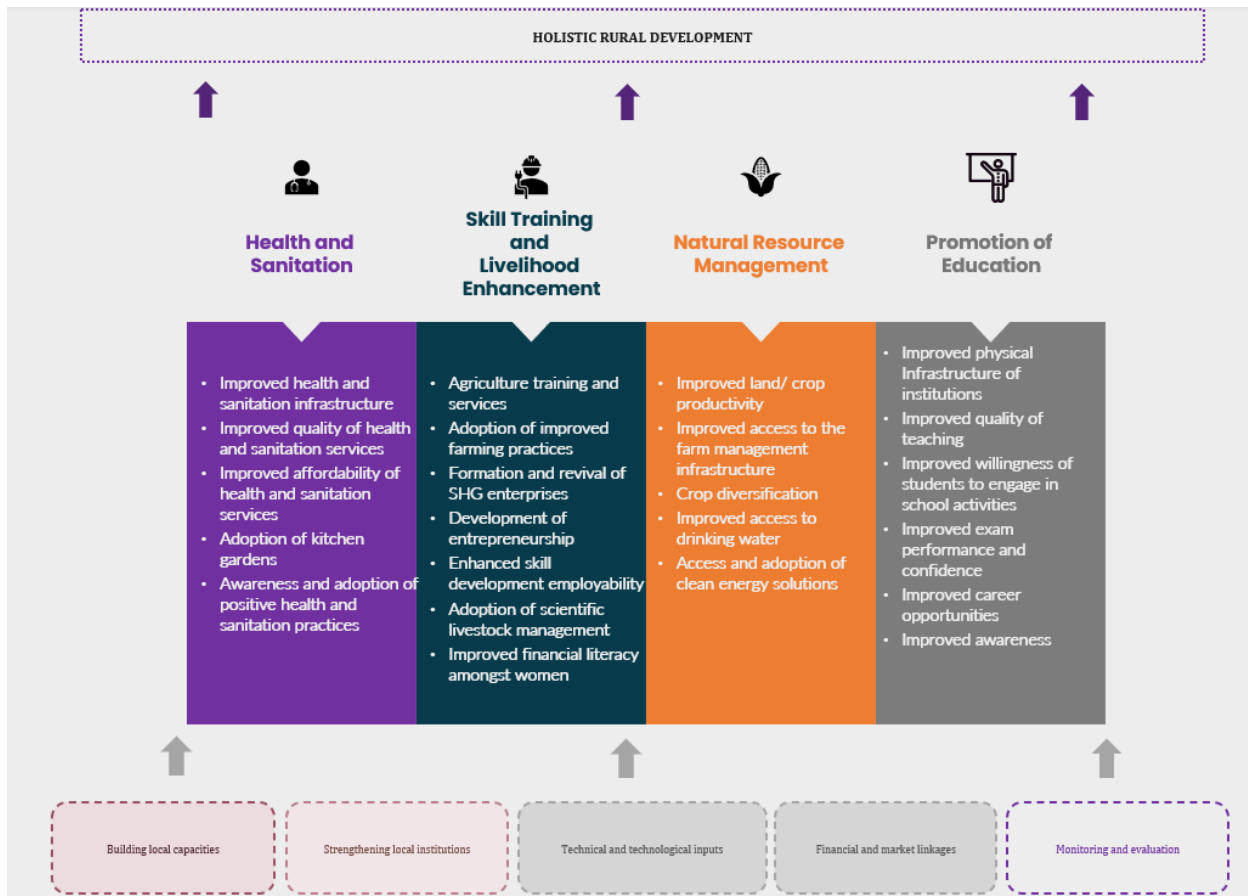
1.2. Partner Organization: Ugam Gram Vikas Sanstha

The organization is actively involved in the promotion of environmental and agricultural sustainability through natural resource management (watershed development and promotion of water conservation and recharging techniques). Integrated rural development is another focus area of the organization and it works on women's issues, and on creating awareness about laws and legislations among the villagers. It also works on imparting knowledge and skills among the various target groups (technical-non-technical). Seed banks (traditional seed collection), organic bazaar, training, workshops, seminars, debates on organic agriculture practices, creating reading materials, compost and bio-fertilizer techniques, farmer groups, and certification of organic farmers through PGS (participatory guarantee scheme) are several activities covered under natural resource management and sustainable agriculture. Along with this, the organization plays a very important role in creating awareness about several acts like the right to information, the national rural employment guarantee act, atrocities against backward classes and women, etc.

1.3. Purpose and objectives of the study

The impact assessment aims at understanding the overall process undertaken by HDFC Bank and the partner organization in implementing the program activities, key milestones achieved, the impact created by these activities, challenges faced, and the manner in which such challenges were handled. The guiding philosophy behind this study is to add value by showcasing successful initiatives and recommending possible ways to address challenges that exist. The impact assessment aims to critically and objectively evaluate the implementation and performance, to determine the reasons why certain results were achieved or not, to draw lessons, and to derive good practices and lessons learned. The study is expected to provide evidence-based findings which would inform HDFC Bank in taking operational and strategic decisions while planning and funding its partner organizations for such programmes. The evaluation was also an opportunity to learn about the relevance of the programmes implemented and their effectiveness.

Figure 2 Conceptual framework of the implementation



Agriculture is one of the main occupations in the state of Maharashtra. About 82% of the rural population depends on agriculture for livelihood. The total irrigated area under crop cultivation amounts to about 18% of the gross cropped area. In Maharashtra, rainfall patterns differ from region to region.¹

Issues such as delays in rainfall and depleting groundwater levels have led HDFC Bank's HRDP to focus on the construction/ renovation of check dams which can ensure an adequate supply of water for agriculture. Apart from agriculture, the programme also focused on providing other livelihood opportunities through goat-rearing units, providing entrepreneurial support in terms of providing coaching for setting up tailoring shops and strengthening of SHGs. Through these interventions, the program was implemented to create sustainable communities in 8 villages in the Washim district of Maharashtra state.

Intending to achieve holistic rural development in these areas, the programme has focused broadly on four thematic areas of intervention – promoting education, health and sanitation, natural resource management, skill building, and livelihood enhancement.

¹ https://agricoop.nic.in/sites/default/files/Maharashtra-SAP_V1.3-2.pdf

2. Research Methodology

The assessment used both qualitative and quantitative methods. For each cluster and thematic area, activities completed were identified. The impact generated by these activities was assessed using the criterion of Relevance and Convergence, Effectiveness and Impact, and Sustainability and Replicability. The evaluation process was carried out in a consultative manner involving interactions with both HDFC Bank and UGAM teams at key junctures. Under the criteria of relevance and convergence, the evaluation sought to answer whether the design of the program interventions is aligned with the state's plans and priorities for rural development. In addition, the evaluation examined whether the design and implementation of the program were relevant to the local needs of the most vulnerable groups. The evaluation tried to understand contextual factors that influence the program design and its implementation and the extent to which such factors have been considered to tailor the program design to suit the local needs. The study has observed if there has been a convergence/ made use of the existing resources of the government and whether different stakeholders involved have worked together to achieve the outcome of the program.

To assess the impact and effectiveness of the program, the findings seek to establish the values of outcome indicators of all the thematic interventions. These findings are assessed against the outcome indicators finalized during the outcome harvesting stage. Further, through qualitative evidence, the evaluation tries to understand whether and how the program impacted the lives of the community members in the program areas. This was done through an analysis of program outcomes in light of certain variables identified in consultation with HDFC Bank. The findings from primary quantitative data have been substantiated by the information gathered from discussing with the communities/ beneficiaries, teachers, students, entrepreneurs, and local institutions at the village level. Through primary data, the study has tried to understand if the program has worked on strengthening the community's capacity to ensure sustainability, and whether any of the activities or strategies adopted have been/could be replicated.

2.1 Design and Methodology

A review of various program documents including HDFC Bank's CSR Policy, Rapid Rural Appraisal Reports, Program implementation timelines, Communication, and Documentation Products, and other relevant reports/literature related to the program was utilized for a secondary review. The primary research included a quantitative household survey as well as in-depth interviews and focus group discussions with program beneficiaries and the partner NGO. The outcome mapping and result chain development were undertaken in consultation with the HDFC Bank team. The exercise resulted in the identification of standardized key outcomes and indicators related to each of the program's thematic areas. Based on the standardized list of outcomes and outputs, the questionnaire for the state was developed.

2.2 Sample size and distribution

Quantitative sampling methodology

In this cluster, eight intervention villages were selected for the study.

Stage 1 – Selection of villages

All the intervention villages were selected as sample villages. Sample from each village was selected by using Probability Proportionate to Size (PPS) sampling method. Care was taken to cover the maximum sample from the villages that have received a maximum number of interventions in order to get appropriate coverage of all components of the program.

Stage 2 – Selection of beneficiaries

The list of beneficiaries was obtained from the implementing partner – UGAM. Since beneficiary selection was undertaken independently for each programme, the selection of more than one beneficiary from a single household was probable. Also, there have been instances where a single beneficiary received multiple support for the intervention.

Qualitative sampling methodology

Qualitative tools of in-depth interviews (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, the 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. The sample size covered during the field is as follows:

Table 3 Quantitative sample covered

District	Total Households	NRM	Skill Training and Livelihood Enhancement	Health and Sanitation	Promotion of Education
Washim (Total)	411	152	157	45	106
Planned	400	125	125	50	100

Table 4 Qualitative sample covered

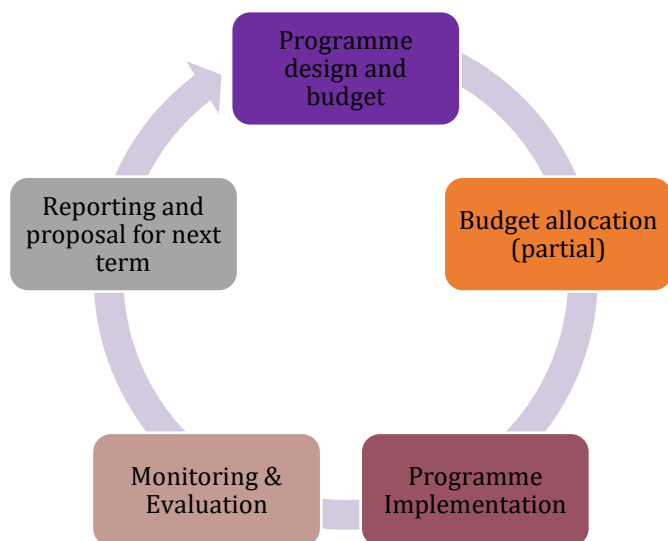
District		Nashik
FGDs	Check dam construction	1
	SHG enterprise	3
	Mix cropping/ vegetable demonstration	2
	Installation of water storage tank/ installation of RO filter/Animal health camp	3
	Street solar light installation	1
IDIs	School teacher	1
	Micro-enterprise	1
	Livestock beneficiary	2
	Livestock beneficiary/ Organic manure beneficiary	4
	Bore well recharge/soak pit/ kitchen garden/ sprinkler unit	1
	Parivartak/ sarpanch	2

A team of local enumerators, with requisite education and experience, was hired for data collection. One day of training at Washim, Maharashtra was provided to the enumerators and supervisors by the NRM team.

3. Programme review

3.1 Programme design and implementation

Figure 3 Project Planning and implementation process



The programme interventions are decided on an annual basis, with an annual budget allocation based on the proposal by UGAM to HDFC Bank. The baseline/ need assessment study was not available for the Washim project.

Based on preliminary assessments, the partner organization prepared an annual work plan wherein activities were proposed on a need basis. While this approach has helped in providing support for the immediate need of the communities, a systematic approach to resolving issues around such needs and a long-term vision and outcomes towards the thematic areas for HRDP remain desirable.

Based on the observation in the field, budget allocation was largely provided for infrastructure and material support along with skill training and livelihood, whereas behavioural interventions were very limited in the Washim project.

3.2 Programme relevance

The rural population in Maharashtra is predominantly dependent on agriculture and allied activities for their livelihoods and a significant proportion of them are at a subsistence level of income and livelihoods. Intervention villages have been facing the issues of water scarcity, especially in the summer months. Even though most rainfall occurs in the months from June to September, the region faces an acute shortage of water owing to a lack of infrastructure to support water storage and management. This often leads to low cultivation and crops and decreased productivity. It was difficult for the farmers to cultivate the rabi crops due to water scarcity in the region. Against this backdrop, the interventions were designed around creating infrastructure to support water management and storage for agricultural purposes, construction or renovation of check dams, bore recharge and setting up of water storage tanks. This has altered the picture in the eight intervention villages under the HDFC Bank programme in the Risod block, a water-scarce region in the Washim district.

Under the HRDP intervention for NRM, activities such as promotion of mixed cropping, exposure visits, on-field demonstration of vegetable cultivation, and organizing farmers', bore recharge for water conservation were promoted. The promotion of mixed cropping and cultivation of horticultural crops has an impact on income, especially for smallholder farmers who possess smaller parcels of land.

The programme has focused on the creation of livelihood opportunities for the economically backward section of society. Under the intervention, the promotion of enterprises such as a dal mill unit, flour mill unit, promotion of tailoring business for young women, and livestock rearing was

introduced to create an additional source of income. The HDFC Bank project has worked towards women's empowerment by strengthening the self-help groups in the intervention villages., This was done to improve the financial situation of women and improve their confidence. For the smooth functioning of enterprises, training was done for the members, and they were encouraged to promote savings, internal lending, and loan repayment.

While Maharashtra is today one of the most affluent states in India in terms of its per capita income, it continues to have high levels of poverty and inequality which gets reflected in the health outcomes of the state. Maharashtra's performance in the health and sanitation sector is average even though it is the most urbanized and the largest state economy in India. Deaths due to malnutrition, low levels of access to various healthcare services, and lack of sanitation and hygiene practices are some of the reasons why the state is still struggling to achieve the desired health outcomes.² Although Maharashtra is the largest state economy, and second most populous, the performance of the health sector is average. The public health system is deficient in terms of spread and the number of hospitals close to the community. The systemic vulnerability due to a massive shortfall in specialists has become evident with the spread of the coronavirus disease.³

In rural areas of Maharashtra, there is still a lack of awareness of the importance of health and many myths related to better health. It is the need of the hour to dispel them and help rural communities in understanding the importance of timely diagnosis and treatment of diseases which can be ensured by frequent health checkups. Under the intervention, soak pits were constructed to ensure the better health of the community. RO units were set up for the rural community to access safe and clean drinking water, thus avoiding water-related diseases.

As per the ASER report 2018, although learning outcomes in the state of Maharashtra have seen substantial improvement in the last few years, the state has not been able to match its performance from a decade ago. In Maharashtra, drop-out rates show a slightly decreasing trend at the upper primary and secondary levels but vary at the primary level. Compared to primary and upper primary, drop-out rates are high at the secondary level. If we look at the gender-wise distribution, drop-out rates are higher among girls as compared to boys. The intervention under HRDP in promoting education aligns with the central and state government's objective to provide quality education to marginalized sections of society. HDRP is working on promoting quality education through infrastructure development such as the installation of water post/ RO filters, school repair work, and educational paintings. The program also focused on improving learning outcomes by adopting innovative learning techniques with the help of science materials provided under the intervention that can improve the grasping power of students and create a more joyful environment for learning.

² <https://www.cehat.org/go/uploads/Hhr/hhcm.pdf>

³ <https://www.adb.org/sites/default/files/publication/783876/sawp-091-assessment-maharashtra-state-health-system.pdf>

4. Study Findings

4.1 Demographic profile

This section provides the demographic profile of the respondents covered in the sampled program villages under the assessment. In the sample villages, 59% are female, whereas 41% are male. In terms of the education status of the respondents, about 19% have completed their secondary education. The majority of the sample respondents (47%) belong to the other Schedule caste (SC) in the intervention villages. About 58% of the sample population reported cultivation as their major source of income.

Figure 4 Age of the respondent (n=410)

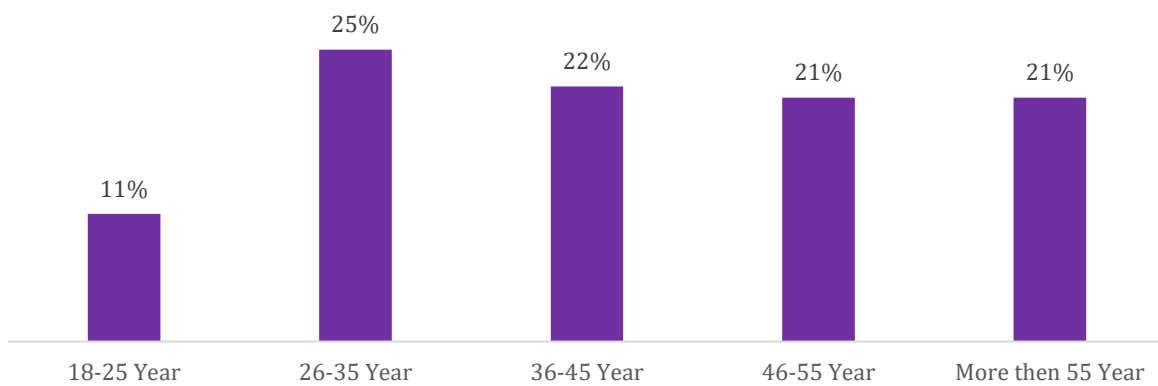
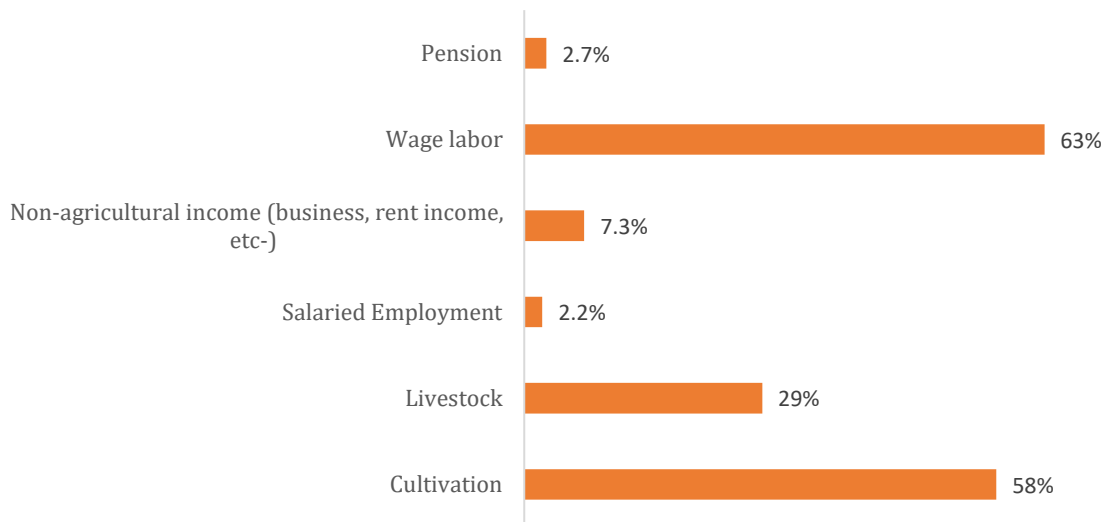


Figure 5 Source of income (n=410)



4.2 Natural resource management

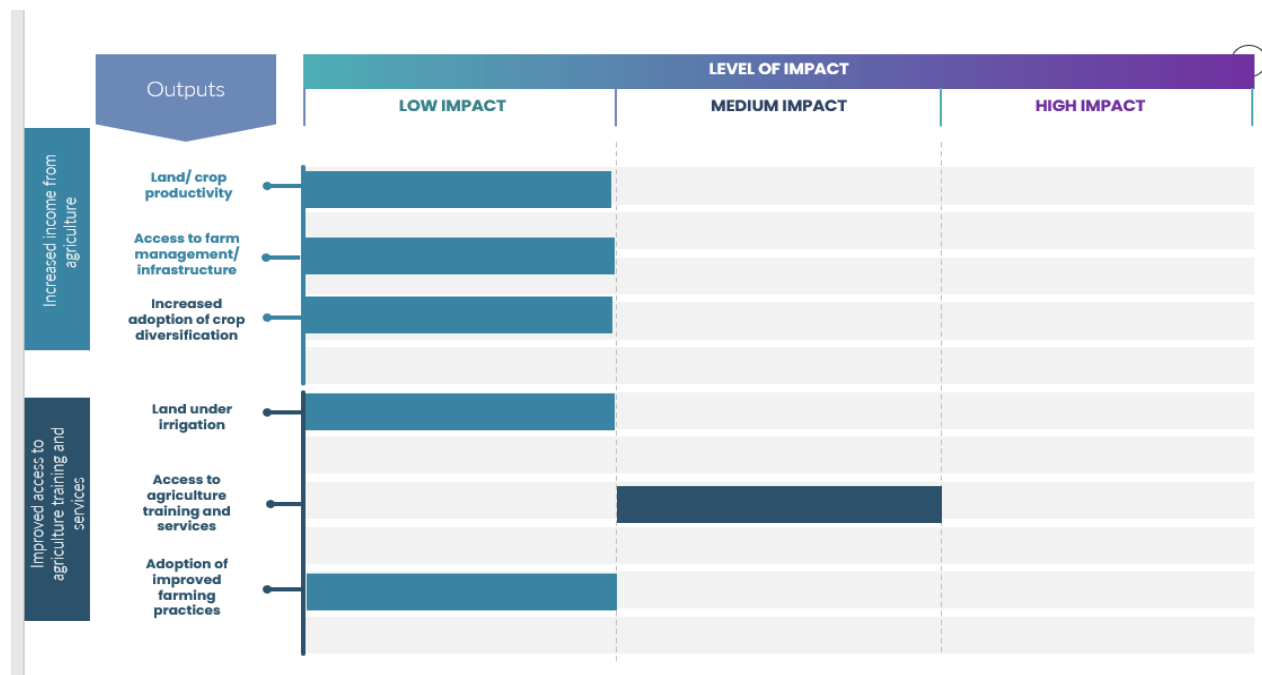
Natural Resource Management is one of the most important pillars of HRDP. The interventions in this pillar were designed and implemented keeping in view the needs of the community as well as suitability to the geography. The programme continued for three years from 2018 to 2021 and comprised of interventions under various activities such as construction/ renovation of check dams, water management in agriculture (irrigation) by setting up of sprinkler irrigation units, bore recharge demonstration, water budgeting exercise with the community, vegetable hub demonstration, setting up of solar lights in villages, organizing farmers camp and awareness drive. Since the focused region is drought-prone, intervention in NRM is expected to ease the water-related issues for both household and agricultural purposes.

Table 5 Activities under Natural resource management

Activity Category	Activities
Irrigation management	Support for sprinkler units
Water management	Construction/ renovation of check dams, water budgeting exercise with community, bore recharge
Farm management	Promotion of mix cropping, farmers camp on climate resilience
Awareness generation	Organize mela, organize community awareness drive
Clean energy	Installation of street solar light

4.2.1 Effectiveness and Impact

Figure 6 An overview of project effectiveness and impact in natural resource management (based on the quantitative findings)



The interventions by HRDP have resulted in achieving low to high impacts across different output indicators under the project intervention in project clusters of Maharashtra. In summary, the following indicator boxes show which outcome indicators the programme has performed well. While the overall access to water for agriculture improved significantly, the average increase in income from crops has had a high impact.

Water management for agriculture

Image 1 Check dam construction, Yevti village, Washim



able to adopt the practice of mixed farming, wherein after the intervention they have started cultivating horticultural crops like tomato, chili, and lady's finger. Further, due to the percolation of rainwater, the groundwater level has increased and has led to good recharge, as per the qualitative study.

About 7.6% of the beneficiaries stated that they received support for check dam construction from the HDFC Bank. On the aspect of the level of satisfaction, 36% of the respondents stated that they were fully satisfied with it since the quality of infrastructure is really good and there has been no damage. When asked about the support provided for the sprinkler irrigation units, 50% of the beneficiaries reported that they are fully satisfied with the infrastructure quality respectively. Beneficiaries stated that after the installation of the sprinkler unit, water use efficiency has improved and there has been substantial improvement in the productivity of crops. The intervention has been largely beneficial for small and marginal farmers as it incurs a high cost of installation. Under the intervention, sprinkler units were provided to farmers on a rotational basis which has led to improved water use efficiency and improved crop productivity.

Increase in income from agriculture

Interventions such as water management in agriculture, installation of sprinkler units for irrigation, soil testing, adoption of crop diversification and horticultural crops, installation of vermicompost

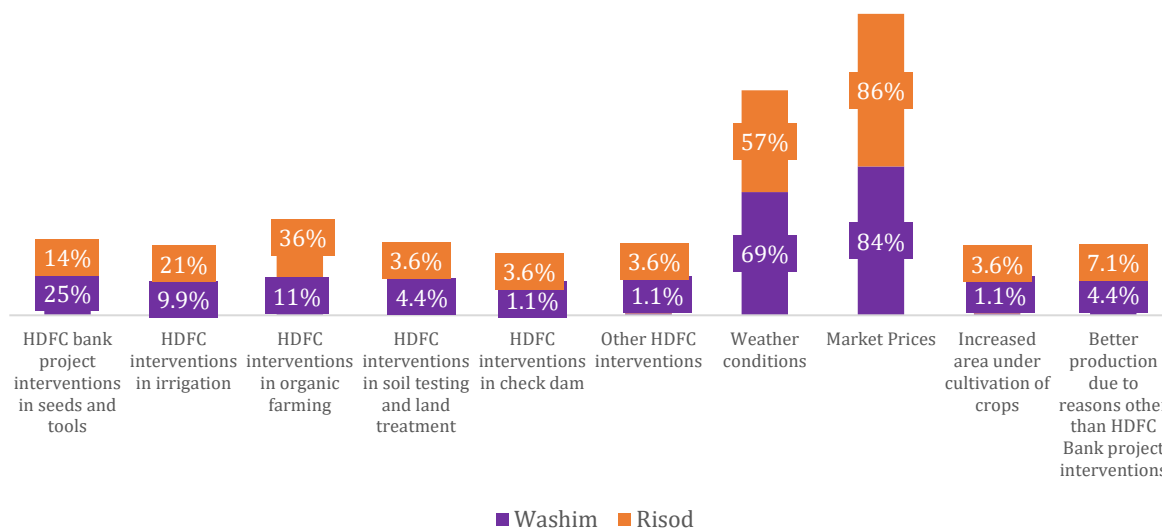
Field-level qualitative findings have ascertained that the construction or renovation of the check dam has helped in increasing the water availability in the villages under the HRDP intervention. However, there has been no change in the cropping pattern, the production of crops has increased due to perennial water availability. Farmers have started cultivating green gram in the summer months which was not possible before intervention due to insufficient water in wells and bores. **With the construction or renovation of check dams, water is now perennially available in the villages.** Farmers have been

Image 2 Crop diversification (tomato, chili, lady finger), Adoli village, Washim



pits, and reduction in input cost have led to increased income from agriculture. Owing to the agricultural intervention and increased availability of water under the HRDP project, 86% of the respondents stated that there was an increase in income. **Before the intervention, the average net income (median) from agriculture was Rs. 40,000** (Rs. 80,338 when based on mean) **which increased to Rs. 50,000 post-interventions (Rs. 94,947 mean) which is an increase of around 25%**. On performing the one-sample t-test, as the significance value is less than 0.05, it can be concluded that net income has significantly increased as compared to the baseline median value. ($p > 0.05$ at 95% confidence interval). Of all the respondents, 23% reported an increase in income due to HDFC Bank intervention in seeds and tools, HDFC Bank intervention in irrigation (13%), HDFC Bank intervention in organic farming (17%), HDFC Bank intervention in soil testing (4.2%) and HDFC Bank intervention in check dam (1.7%). **The gross income before the intervention was Rs. 70,000 (Rs. 1,22,824 mean) which increased to Rs. 80,000 post-interventions (Rs. 1,48,118 mean) Which is an increase of 14%**. On performing the one-sample t-test, as the significance value is less than 0.05, it can be concluded that income has significantly increased as compared to the baseline median value. ($p > 0.05$ at 95% confidence interval)

Figure 7 Reasons for increased income from agriculture (n=119)



Adoption of horticulture and crop diversification

Of the sample respondents, 22% reported an increase in income from crop diversification. Of the sample respondents, 28% of beneficiaries stated that they are fully satisfied with the crop diversification intervention.

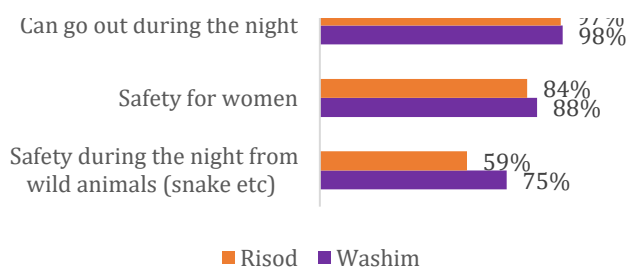
The qualitative findings indicate that there has been an overall increase in income. Other than increasing income from horticulture, many of the farmers have obtained alternate sources of income as well from the cultivation of vegetables such as chili, tomato, lady finger etc. According to the qualitative study, respondents highlighted that the quality of produce has been good owing to the technical information provided under the project.

Use of clean energy solutions

Providing solar streetlights and solar lanterns under the HRDP intervention has enhanced basic energy access to rural households. Installation of solar-powered lighting has helped improve the quality of education in rural areas, and safety for those who return from fields at night and for anyone who wants to use public spaces in the evening.

The selected villages in the project areas had an erratic supply of electricity prior to the project. The qualitative findings have shown that the use of solar street lights and solar home lanterns has resulted in improved quality of lighting post-sunlight hours.

Figure 8 Perceived benefits of street solar light (n=143)



The program has installed street solar lights in the intervention areas. Respondents have been using solar lights for studying, lighting, and other purposes. When asked about the benefits of solar light, 71% reported safety during the night from wild animals such as snakes, 87% stated safety for women after dawn as now they can walk freely, and 98% reported can go out during the night. Respondents have reported that the solar

lights have provided them and their families relief from erratic electricity as now their children are able to study after the sun set which can improve their grades and study timings. Households have reported that solar streetlights have provided cost-effective and environment-friendly solutions to access energy. Beneficiaries now organize monthly gram panchayat meetings and other cultural events under solar light due to erratic electricity. The solar street lights have been strategically erected at locations where no other lighting source was present and the maximum number of households can benefit. The intervention providing street solar lights in the program villages has made it safe for women to walk around in the village even after dark. In the past before the intervention, villagers, especially women and children could not go out once the sun goes down as the streets would usually go completely dark at night. Respondents reported an increase in the level of safety after the installation of solar streetlights which helped in breaking the darkness after sunset.

Moreover, there are certain challenges that the community shares after receiving benefits under the intervention. The challenges reported were the high cost of maintenance, and repair issues once damaged.

4.2.2 Case Study 1: Construction/renovation of check dam

Image 3 Check dam, Yevti village, Washim



Yevti village is located in Risod taluka of Washim district. The village is mostly inhabited by people belonging to other backward class and muslims; a small share of the population belongs to the scheduled caste category. Agriculture is the mainstay of most of the population in the village. Majority of the farmers in the village are small and marginal holders. About 60% of the farmers own land and around 40% of the population is landless. Migration is not rampant in the village. Since last few years, Yevti village was constantly confronted with dry spells. The dry spells has

With the construction of canals under the state government program, farmers were quite relieved; however, the issue of water scarcity persisted. Although water situation started changing, farmers were still not able to cultivate rabi season crops as water was not available perennially. Under the intervention, check dam was built in the village in 2018-19.

The construction of check dam under HRDP interventions for *Natural Resource Management* have led to increased groundwater percolation, well recharge and increased water availability in the summer months. They have been instrumental in improving the capacity of water bodies and now the village has sufficient water throughout the year for agriculture purpose.

Check dam construction has altered the water scarce situation of the village. Before the intervention, the village used to face the issue of water scarcity just after two-three months of rainfall which adversely affected their income and crop productivity. Due to check dam construction, water is available throughout the year which has not only improved crop productivity, but also created livestock rearing and sericulture as additional source of income. The water availability for village has improved by 50-60%, as per the respondents.

Image 4 FGD with farmers on check dam construction, Yevti village, Washim



Before the HRDP intervention, farmers in the village used to cultivate wheat, gram, and soybean along with horticultural crops like orange. After the intervention, due to perennial water availability, beneficiaries have started cultivating green gram in the summer months as well. Due to this, the overall agricultural production has increased by 20-30% leading to increased income from agriculture. As the farmers have started growing fodder crops due to increased water availability, this has led to the strengthening of livestock rearing as an additional source of income.

One of the beneficiaries quoted ***“Construction of check dam not only led to visible direct impacts such as improved crop productivity but also indirect impacts such as increased availability of drinking water and well recharge”***. Now, the wells which used to run dry in the summer months have water throughout the year. From better water management, farmers benefitted from the installation of drip units under the HDFC Bank project.

The entire process was carried on with equal participation of villagers and transparency was maintained. They further indicated their willingness to take up more check dam construction/renovation activities in the future. Although beneficiaries were satisfied with the quality of support, faulty design and poor quality of construction need to be improved upon to ensure the sustainability of the intervention.

4.3 Skill Training and Livelihood Enhancement

In the project area, a significant proportion of the population depends on agriculture for their livelihood. This sector has been the single largest provider of employment to the rural people in the block. Animal husbandry is the next largest provider of livelihood to the farmers in the area and has been helping them to reduce pressure on crop production. Apart from that, wage labour contributes to the bulk of the livelihood of poor and vulnerable households, especially for the small farmers and landless who are mostly unemployed or underemployed. The HDFC Bank Parivartan project focused on skill development and livelihoods in the eight villages of Washim block and Risod block in the Washim district, especially for the sections in the area that belong to traditionally marginalized social and occupational groups.

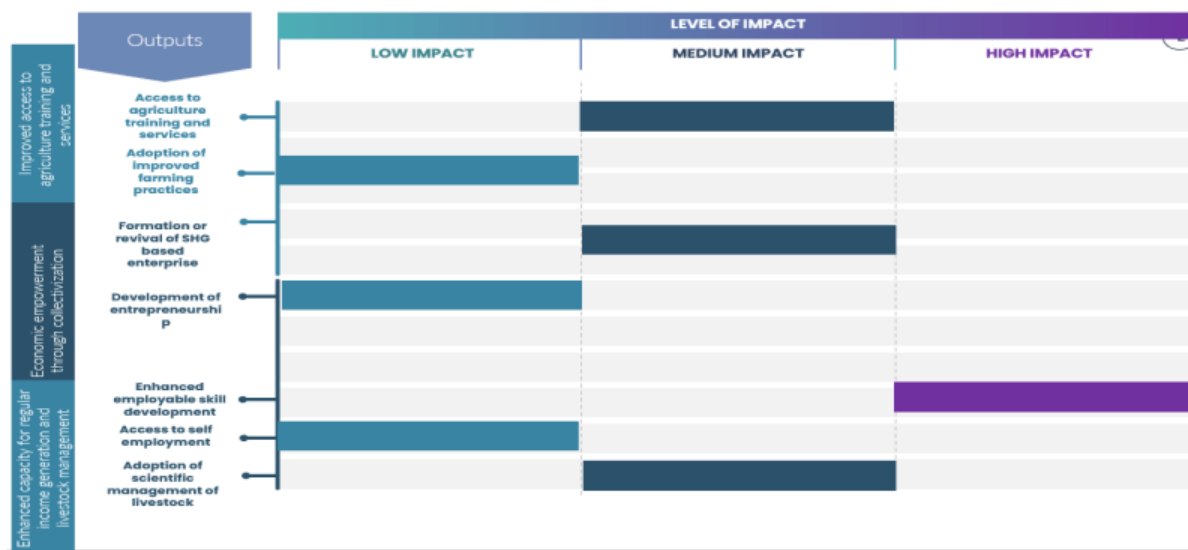
Table 6 Activities under skill training and livelihood enhancement

Activity Category	Activities
SHG-Based Women Empowerment	SHG based enterprise
Agriculture Training and Support	Training on agricultural practices, support for farmers association, training on organic manure preparation, vegetable demonstration plot
Livestock Management	Livestock rearing (goatery, poultry)
Entrepreneurship Development	Establishment of a tailoring coaching unit

The activity-wise number of beneficiaries covered during the study is given in the methodology and sampling section. Further, the relevance, effectiveness, and sustainability of activities under skill training and livelihood enhancement will be discussed in detail.

4.3.1 Effectiveness and Impact

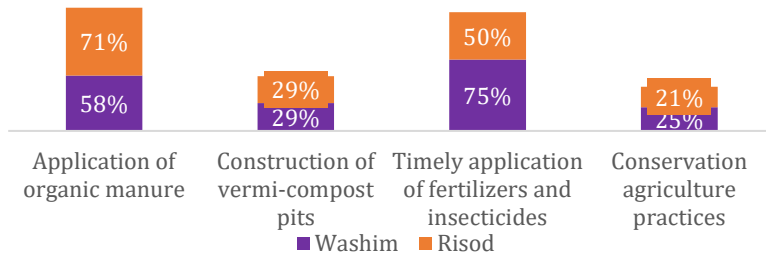
Figure 9 An overview of project effectiveness and impact and skill training and livelihood enhancement (based on the quantitative findings)



Agriculture training and support

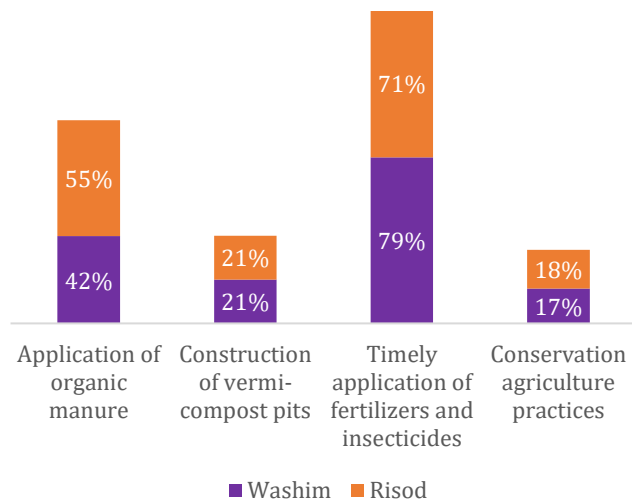
As per the quantitative survey in the project area, of the respondents, 100% received support/training on agricultural activities under the HRDP intervention.

Figure 10 Percentage of respondents who learned these activities through HDFC Bank intervention (n=38)



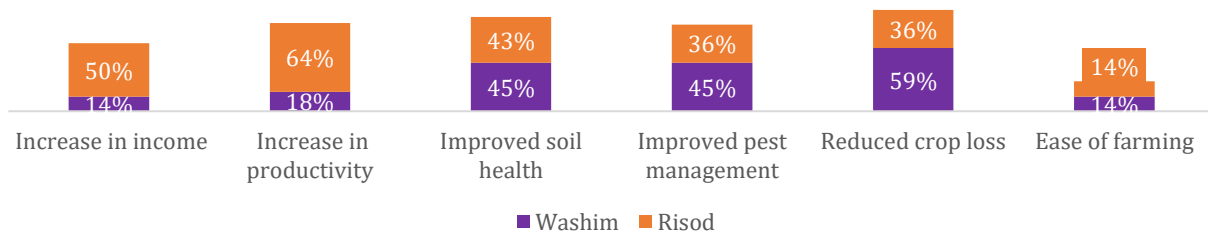
The awareness about sustainable farming practices among the respondents was - the application of organic manure (66%), construction of vermicompost pits (26%), timely application of fertilizers and insecticides (61%), and conservation of agricultural practices (18%).

Figure 11 Percentage of respondents currently practising activities learnt through HDFC Bank intervention (n=38)



About 47% of the respondents reported that the training helped them in improving awareness about sustainable farming practices, whereas 34% of respondents stated that the intervention has helped them in reducing input cost, 50% of the respondents stated that training helped in improving capacity to increase crop production and 45% reported a reduction in crop loss or diseases. Under the intervention, training was conducted on-farm techniques, demonstration plots, and farm field schools, and exposure visits were held.

Figure 12 Perceived benefits of farming practices: Percentage of respondents (n=36)



Along with this, the qualitative study indicates that the farmers were trained in manufacturing natural fertilizers like jeevamrut, neemark and dashparni ark. Of the respondents, 79% said that they found the training useful. As per the qualitative findings, training on the manufacturing of organic manure has subsequently reduced expenditure on health by Rs. 10000 to Rs. 15000 per year.

Image 5 FGD with beneficiaries of organic manure, Varudtofa village, Washim



Of all the sample respondents, 76% of the beneficiaries reported increased use of natural fertilizers after the project intervention. The training was provided under the intervention on the preparation and use of vermicompost, dashparni ark, lamitarark and neem ark. When asked how the use of natural fertilizers has helped them, the response was decreased use of chemical fertilizers (38%), decreased use of pesticides (40%), decreased need for water (23%), improved production (52%), improved quality of produce (31%), improved health of soil (43%)

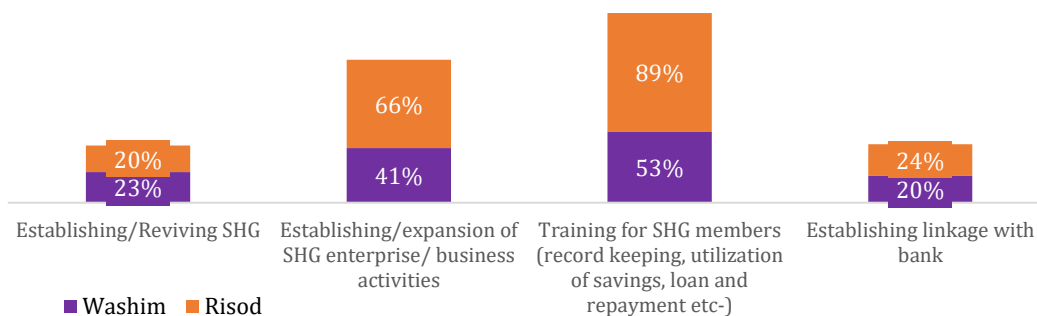
Economic empowerment through collectivization



Image 6 Flour mill unit, Khandala village, Washim

In the project area, there were several informal groups formed by women for addressing their routine credit needs for consumption purposes before the project commencement. All the SHG groups were formed under the UMED programme of the government of Maharashtra before the commencement of the project. Although HDFC Bank intervention did not work towards the formation of SHG groups, efforts were put towards strengthening the existing groups by providing them with financial literacy as well as through training to start a small business. There is a total of 80 SHGs in the eight villages as per the qualitative findings. Further, various enterprise support options were provided to SHG members such as livestock rearing, Dall mill unit establishment, masala-making enterprise, and tailoring/ boutique shop under the intervention.

Figure 13 Support services for SHG (n=264)



The effort of UGAM as a part of the project has been to provide better skills, abilities, and functional capacities for employment and income-generating activities among the poor and marginalized members of the SHGs in the area.

About 46% of the SHG members reported income generation as one of the key benefits of being an SHG member. Besides this, having personal savings (89%), an increase in confidence (80%), and getting a loan with less interest amount (65%) were other benefits reported by the members of SHG. Of all the respondents, 94% reported receiving training on financial literacy.

The project endeavour was to imbibe savings habits in the SHG members. The SHG groups were further mobilized to start their enterprises thus economically empowering the women and working on their financial and social inclusion. The project helped in getting access to collateral-free loans which further strengthened the functioning of the group. With the training received under the intervention, the credit absorption capacity of individual members improved substantially according to the qualitative findings. The work on providing enterprise support to the women was to achieve financial independence for women and improve their confidence to expand the enterprise. According to the qualitative findings, the Dal mill unit was established for the SHG group (Ramabai Ambedkar group). Earlier SHG members used to work as agricultural labourers, the intervention has provided women with an alternate source of income. On average, the income of the SHG members has increased by 20-30%, according to the qualitative findings.

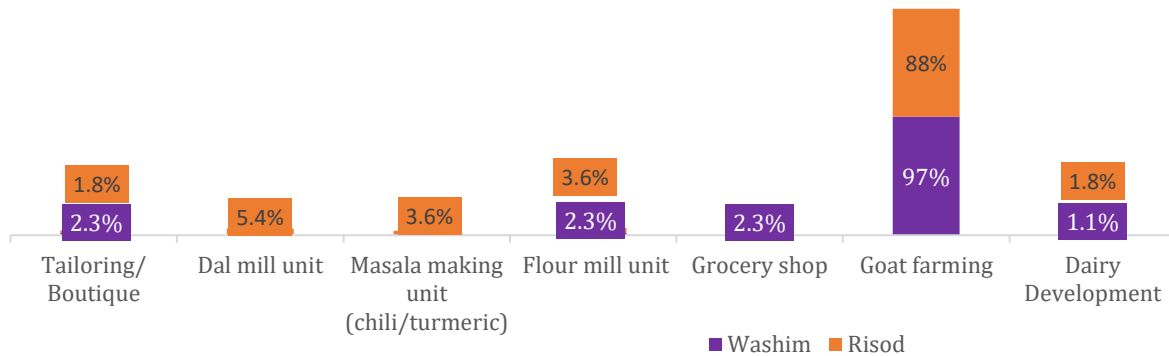
Image 7 FGD with daal mill unit beneficiaries, Yevti village, Washim



When asked about the pieces of training received under the intervention, of all the respondents, 68% reported that the project intervention helped them in SHG management (meetings, record keeping), 73% stated that they benefitted in bookkeeping, 73% benefitted in lending on savings management, 17% stated that it helped in enterprise or business activities, benefitted from bank linkages. During the project, on average beneficiaries reported that they attended two meetings and about 81% find the training useful.

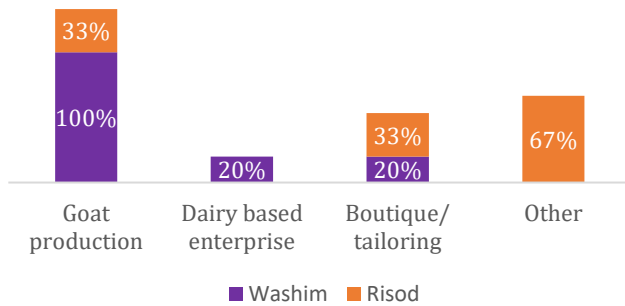
About 91% of the respondents stated that their SHG is currently active. SHG groups in the project still follow the method of internal lending, wherein members of the group can borrow money at a 2% interest rate. Members attend monthly meetings and save anything ranging from Rs. 100-200 a month (varying for groups). Once the group achieves sufficient collection, the loaning mechanism begins.

Figure 14 Proportion of SHG members involved in different enterprises before the project and supported under HDFC Bank project (n=81)



Most of the groups created (or revived) under the HDFC Bank project have around Rs. 60,000 to Rs. 70,000 in savings. **The average monthly income before the intervention from SHG activity was Rs. 300 which increased to Rs. 2000 (median values) which is a 57% change. On performing the one-sample t-test, as the significance value is greater than 0.05, it can be concluded that income has not significantly increased as compared to the baseline median value. ($p < 0.05$ at 95% confidence interval).**

Figure 15 Respondents currently involved in enterprises (n=8)

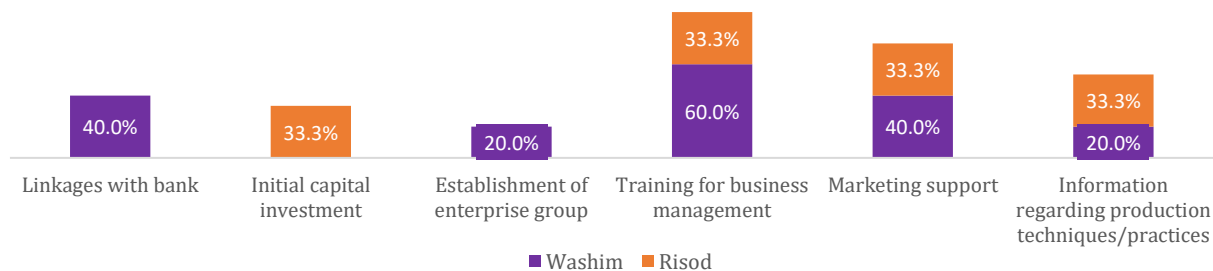


Skill and entrepreneurship development

The HDFC Bank project interventions focused on setting up micro-enterprises by providing tailoring coaching to young women who can start their own small businesses, dairy-based enterprises, and salon. Setting up micro-enterprises resulted in the economic empowerment of the section of society who used to work as agricultural wage labourers or casual wage labourers before the intervention. Of all the respondents, 100% stated that they received benefits on skill development for

self-employment, and 100% of the respondents stated improved confidence to establish enterprises. Of all the respondents, 100% stated that they were able to apply skills gained through pieces of training under the intervention.

Figure 16 HDFC Bank support in enterprise development (n=8)



Findings from the qualitative study report that most of the respondents were satisfied with the quality of support received. The intervention has improved the income of the beneficiaries which has led to several other benefits such as saving time, better health treatment for families, and better education for children. The enterprise development has created an additional source of livelihood for the beneficiaries as they now earn an extra source of income besides working as agricultural labourers or livestock rearing. However, at times constant maintenance and quality of the machine such as the dal mill or flour mill unit can prove to be a bottleneck.

When asked about the benefits gained through the project support in enterprise development, 50% reported regular income generation, 25% stated starting a new business activity, about 63% of the respondents reported an increase in income, 25% stated an increase in savings, 40% reported an increase in savings and 38% of them stated business expansion and 13% reported business skill development. **There is no change in income due to enterprise development support under the HDFC Bank project (median values). The average monthly income before the intervention from the enterprise was Rs. 4,000 (Rs. 7625 mean) whose median values remained the same i.e., Rs 4000 (Rs. 4250 mean) post-project intervention.**

Livestock Management

Figure 17 Perceived benefits of livestock management (n=267)

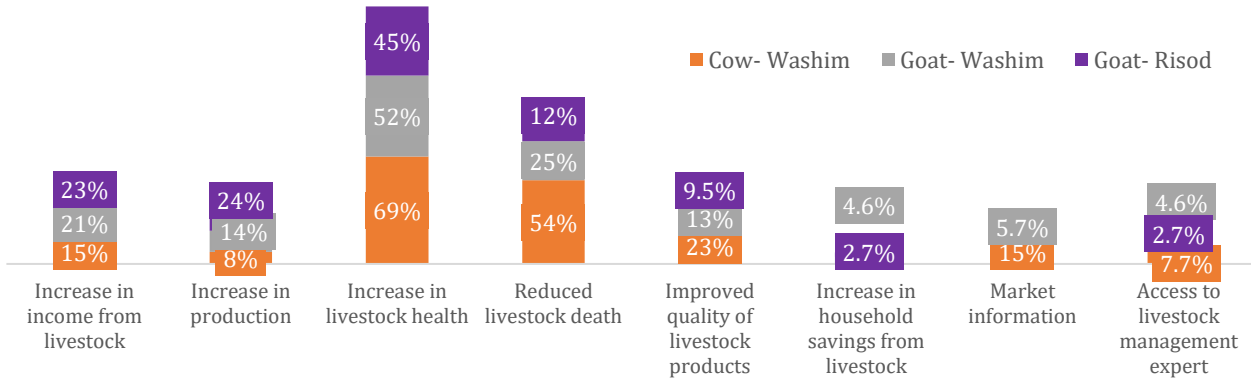
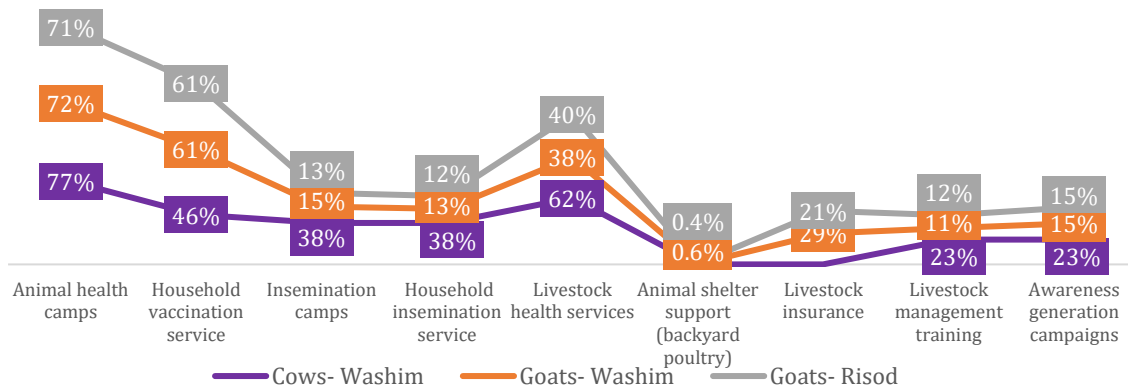


Image 8 Animal health card issued under the HDFC Bank HRDP project



Of all the respondents, 64% reported receiving benefits from livestock management under the HDFC Bank project. Livestock for which support was received included cows, buffaloes and goats. The intervention included providing goats to the beneficiaries, conducting awareness generation campaigns, conducting animal health camps, and assisting the beneficiaries in availing of livestock insurance services provided by the state government.

Figure 18 Project services received for livestock management (n=267)



When asked about the types of livestock, the beneficiaries have after the intervention, the response was - cows (9%), goats (76%), and buffalo (5%). **Before the project the monthly average income of the beneficiaries from livestock was Rs. 1,250 (Rs. 1,765 mean), which decreased to Rs. 900**

(Rs. 1,486 mean) after the project intervention. Thus, the proportionate change in income due to livestock management intervention is negative 28%. On performing the one-sample t-test, as the significance value is less than 0.05, it can be concluded that income has significantly increased as compared to the baseline median value (p<0.05 at 95% confidence interval). According to qualitative findings, Usmanabadi, Khandeshi and local breeds of goats were provided under the intervention by the HDFC bank. During the animal health camps, a health card was provided for each livestock along with the vaccination and insurance policy details. However, beneficiaries during the qualitative study reported that they faced several difficulties during the pandemic times due to restrictions imposed. While most respondents during the qualitative study said that they had benefitted from an increase in income, they felt that the programme could have focused on follow-up services to ensure the sustainability of the intervention.

4.3.2 Case Study 2: Goatery enterprise

Gajanan Kisan Saroday is a 35-year-old man from Varud tofa village of Risod block, Washim. He belongs to the Maratha caste. There are a total of four members in his family. He has two school going children and both he and his wife work as agricultural labourers. Before the intervention, his household's livelihood entirely depended on meagre income earned from working as agricultural labourer. While working as an agricultural labourer, Gajanan used to earn on an average Rs. 10,000-15,000 annually. The annual income earned was not enough to give good education and health facilities to his children.

Under the HRDP, Gajanan received project support when he was provided a goat unit in the year 2021. The pair received timely medical treatment under the HRDP intervention for *Skill Development and Livelihood*. The goat gave birth to two kids during the first gestation period and four kids in the second gestation period. (out of six kids born, two died due to premature birth). At present, Gajanan has one goat and four kids. Since goat rearing is a cost-effective activity, annual expense on goat rearing is minimal. Gajanan during the qualitative study quoted ***“ Earlier we used to struggle to get access to basic needs such as good health and education facilities, but now after the project intervention, i don't think twice before taking my children to good hospitals as i can manage my expenses really well now”***.

Gajanan had prior experience in goatery as he was involved in the same activity in the past. Hence, he did not require any additional training. Before the intervention, he earned on an average Rs. 15,000-16,000, annually as only source of income was of working as agricultural labour. Under the HDFC Bank project, Gajanan started goat rearing to increase his income to Rs. 30,000 annually. As on an average, one can earn Rs 10,000 on selling one goat. Gajanan is planning to sell three kids (bucking) in coming four months to earn the income of Rs. 30,000. The profit earned on an average would be Rs. 30,000-35,000 as Rs. 5,000 would be spent on fodder and other medical requirements.

Gajanan stated that the assistance was provided timely and suited to his needs. Further, he commented that the HRDP intervention provided him with a stable and alternate source of income because of which he is able to give quality healthcare and education to his family.

4.4 Health and Sanitation

Health and sanitation are essential components contributing to rural development. In the program villages, diverse interventions for improving health and sanitation were carried out. The period during which the project interventions took place is 2018-2021. Mapping of the villages was done in the initial phase which was later followed by the execution of the program. During the designing of the project, it was observed that villagers do not have access to clean drinking water and there was less awareness with regard to the health and sanitation practices that need to be followed. The intervention focused on creating awareness by organising health camps for villagers and setting up RO units.

Image 10: Activities under health and sanitation

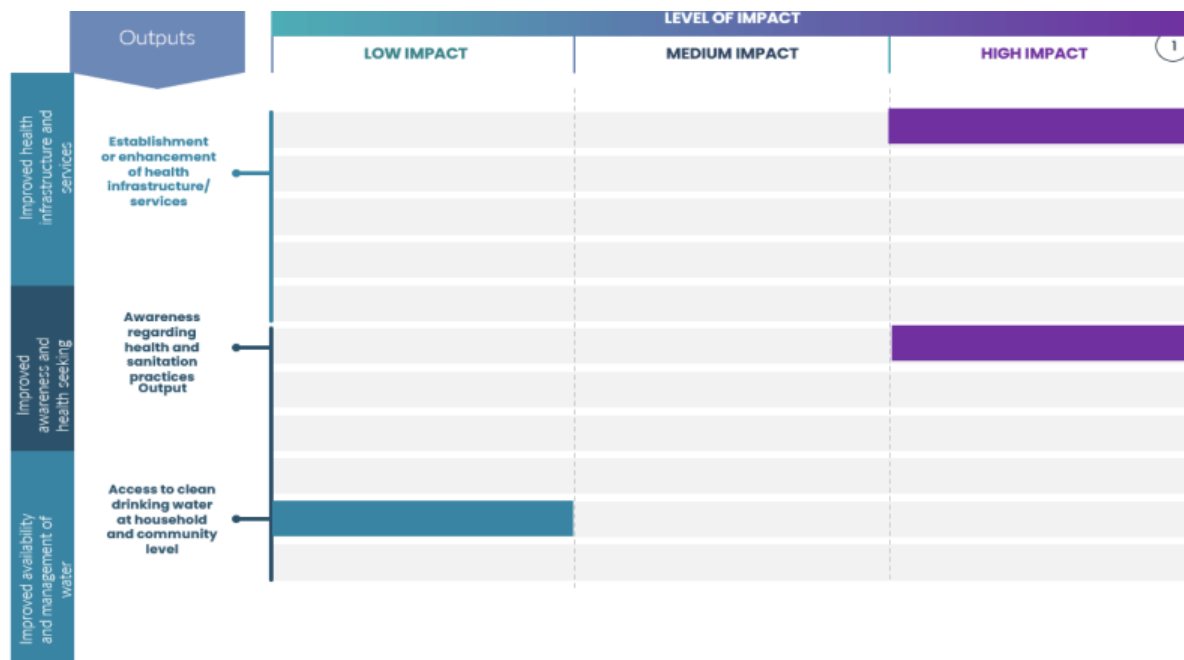
Activity Category	Activities
Health	Health camps, installation of RO filter, kitchen garden
Sanitation	Soak pits

The activity-wise number of beneficiaries covered during the study is given in the methodology and sampling section. Further, relevance, effectiveness, and sustainability for activities under health and sanitation are discussed in detail.

4.4.1 Effectiveness and Impact

Under HRDP, efforts were undertaken to advocate for the importance of sanitation and hygiene practices so that the early diagnosis of diseases and the incidence of undernutrition among women and children or infectious diseases could be avoided. The health and sanitation interventions in the project area aim to improve health-seeking behaviour among disadvantaged sections of the community.

Figure 19 An overview of project effectiveness and impact and skill training and livelihood enhancement (based on the quantitative findings)



Improved health infrastructure and services

Image 9 Installation of RO filter, Varudtofa village, Washim



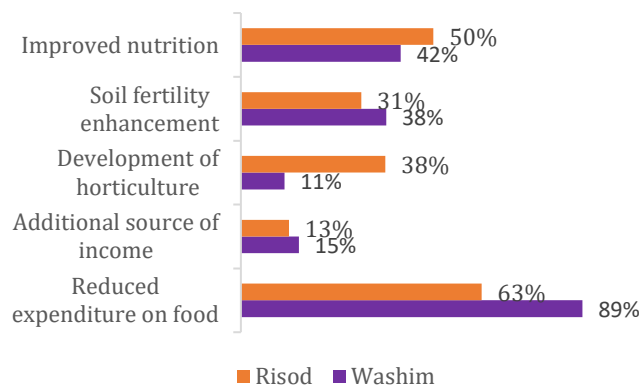
Under the intervention, RO purifier units were established in the villages. The qualitative study indicates that before the project intervention, villagers did not have access to clean drinking water (as water has high fluoride levels). This may increase the risk of skeletal fluorosis and dental fluorosis. **After the intervention, villagers have access to clean drinking water which has considerably reduced the occurrence of diseases.**

On average, one RO unit was established in each village. Qualitative findings report that accessibility to clean

drinking water post-intervention substantially improved the health of the villagers. Before the installation of the RO filter under the intervention, villagers from Varud tofa were compelled to travel to a neighboring village called Ashegaon in case of festivals or any gatherings. Bad connectivity and the cost of transportation would make access to clean drinking water more difficult. After the installation of the RO purifier with a storage capacity of the tank being 1000 litres, clean drinking water is easily accessible to the villagers. The repair and maintenance of the RO unit require an average expenditure of Rs. 1000-1500 per year per village. Even the neighbouring villagers have been benefitting from the purified RO water, wherein the key benefits were improvement in health and prevention of diseases. While most respondents said during the qualitative study that they had benefitted from the installation of a water purifier unit, they felt that the program could have focused on some of the bottlenecks such as erratic electricity supply and the requirement for the greater capacity storage tank.

Through the project interventions, there is a considerable improvement concerning a better understanding of the health issues in the villages. Beneficiaries reported that the information given through health camps and community awareness generation sessions helped villagers by improving awareness of health practices and improved confidence to openly discuss the health issues they faced.

Figure 20 Benefits of Kitchen Garden (n=69)



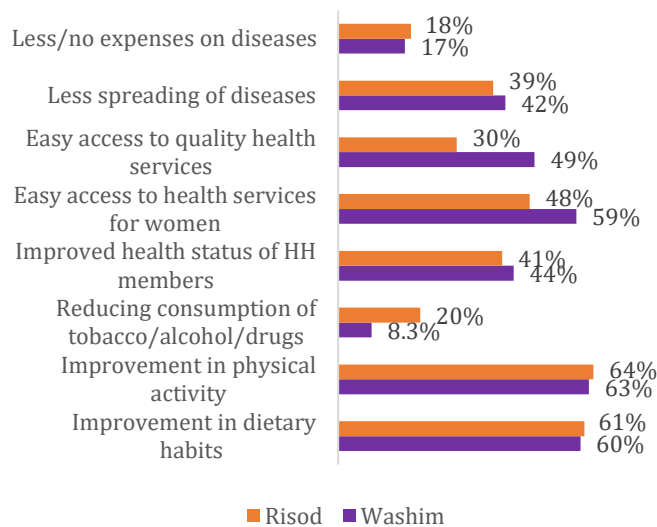
Kitchen garden

The programme has promoted nutritional kitchen gardens. Under the intervention, beneficiaries received vegetable seeds and plants like spinach, coriander, brinjal, tomato, lady finger, cucumber and chili. While the beneficiaries mostly cultivated for self-consumption (94%), some of them were able to sell the surplus (1.4%) and some used it both for self-consumption and selling (2.9%).

When asked if there has been any change in the amount spent on fruits and vegetables since the project started, 69% reported a decrease in the amount spent as now chemical-free fruits and vegetables are easily available at home. Of all the respondents, 72% reported an increase in the

quantity of consumption of vegetables since they started kitchen gardening. On average, Rs. 130 was saved every week on buying fruits and vegetables.

Figure 21 Changes observed due to attending health camps/ awareness session (n=140)



frequently visit the primary health care centre in case of any minor health issues.

67% of the respondents stated that they attended health awareness sessions organized under the intervention. Health awareness sessions were organized in each village with the larger goal of improving information, awareness, routine checkups, and avoiding the spread of the pandemic. Both preventive and curative aspects were focused on during the health session conducted in the villages. The various levels looked at were the individual, family, and community.

Construction of household wastewater soak pits

In the project villages, poor standards of sanitation could be a reason for the prevalence of vector-borne diseases. The stagnation of wastewater near houses led to unhygienic conditions, which makes it a perfect breeding ground for mosquitoes. This increases the spread of diseases such as malaria.

Health camps

According to the qualitative findings, as part of the interventions under HRDP, health awareness sessions were organized after the outbreak of the pandemic to spread awareness about COVID-19-appropriate behaviour.

Pamphlets were distributed amongst the villagers indicating the social distancing norms, and how vaccination can reduce the spread of the pandemic. Pamphlets were also distributed among the school teachers and students to avoid the spread of COVID-19. This also encouraged them to

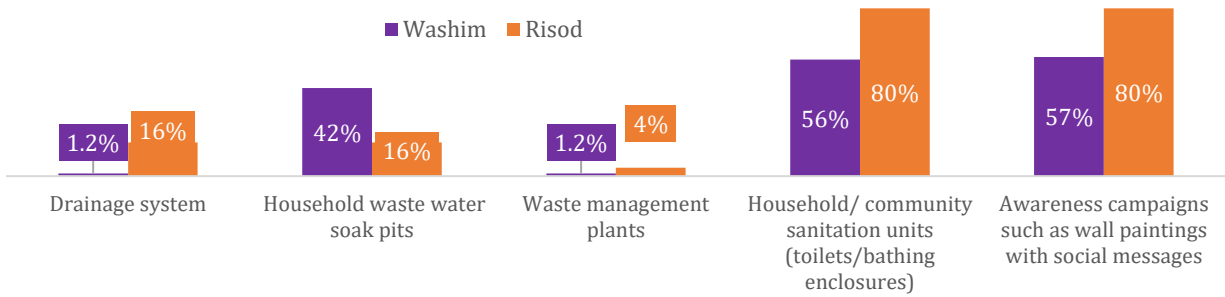
Image 10 COVID-19 brochures



The most important objective of the construction of soak pits in the villages is to improve the hygiene conditions in each village.

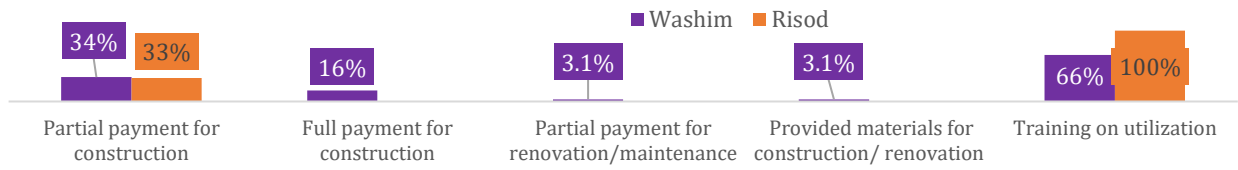
The construction of soak pits also helps in the recharging of groundwater aquifers in the villages. The construction of soak pits under HRDP was in line with the initiatives and programs undertaken by

Figure 22 Proportion of households availing different sanitation services (n=106)



both central and state governments to ensure hygiene and sanitation in villages. Under HRDP intervention, household water soak pits were constructed in each village, averaging out to ten soak pits per village. The soak pits were constructed to safely dispose of wastewater or unusable water according to the qualitative findings.

Figure 23 HDFC Bank support for sanitation unit (n=95)



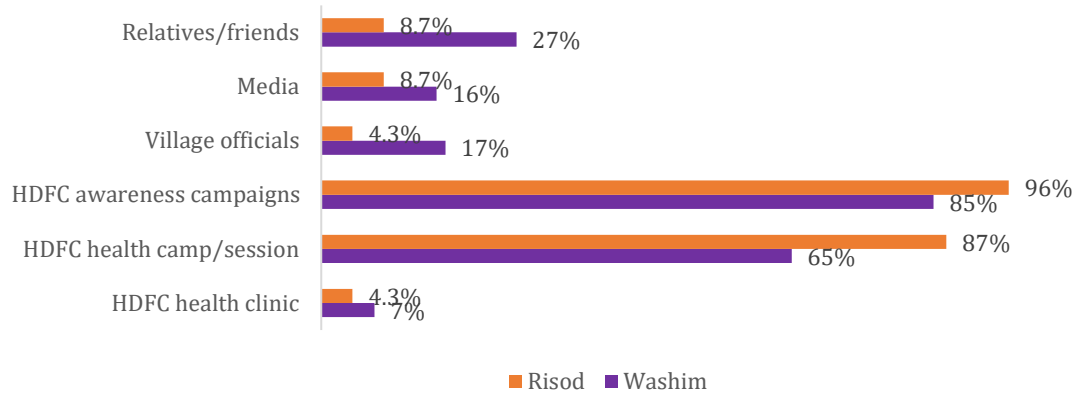
The soak pits constructed on average were three to four meters deep. The soak pit is filled with gravel so that when effluent is discharged, the filler material filters the water and other organic material. Whatever water is flowing into the soak pit is subjected to filtration as organic particles settle down at the bottom. Thus, filtered water then gets soaked into the surrounding soil which recharges the groundwater aquifers in the villages.

Soak pits are best suited for soils having high absorption or infiltration rate. The construction of soak pits proved to be beneficial for the sample villages as they recharged the groundwater and reduced the infestation of vector-borne diseases. The quantitative survey indicates that the benefits of sanitation services as per respondents are – a relief to old/disabled members in the house (7.5%), saves time (10%), comfortable and convenience (23%), privacy (47%), the dignity of women members (64%), the safety of women members (67%) and better overall health of household members (48%).

Most people were of the view that the soak pits purify the collected wastewater to some extent and serve as a partial treatment unit. They stated that the soak pits if maintained properly allow the discharge of relatively clean water to the ground. A pre-post analysis of disposal of liquid waste before and after the project indicates that (a) 8.5% of liquid waste is released into soak pits against

just 23% of respondents who did so before the project (b) 82% of respondents stated that they released liquid waste into open areas before the project while this has reduced to 62% now.

Figure 24 Respondents on where they learned about the cleanliness practices



4.5 Promotion of Education

The work of HRDP in promoting education aligns with the Sustainable Development Goal (SDG) 4, which aims to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.”⁴ In the assessed programme clusters, HRDP is working on promoting quality education through infrastructure improvements and various other activities as listed below:

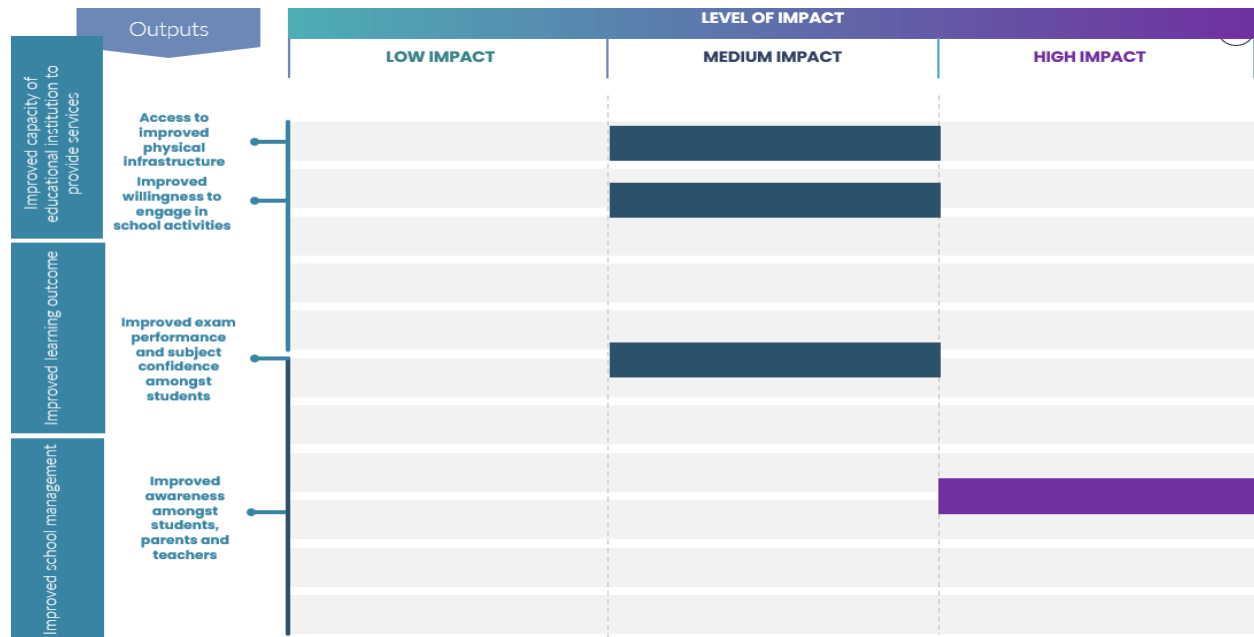
Table 7 Activities under Education

Activity Category	Activities
Educational Institutions Development	Educational paintings, school repair work, installation of drinking water posts/RO filter, setting up of computer lab
Awareness Generation	Awareness generation session

The activity-wise number of beneficiaries covered during the study is given in the methodology and sampling section. Further, relevance, effectiveness, and sustainability for activities under education will be discussed in detail.

4.5.1 Effectiveness and Impact

Figure 25 An overview of project effectiveness and impact on education (based on the quantitative findings)



⁴ Sustainable Development Goal 4 (SDG 4) | Education within the 2030 Agenda for Sustainable Development (sdg4education2030.org)

Educational Institutions Development

Image 11 RO filter installed in the school, Adoli village, Washim



The intervention under HRDP has resulted in achieving better learning outcomes in schools due to the upgradation in physical infrastructure facilities such as repairing of school, providing science materials to students, setting up of computer lab, RO filters for clean drinking water, setting up of water storage tanks and educational paintings. The improvement in the facilities has been by making learning more joyful using educational paintings, providing safe and clean drinking water for children, increase in attendance and enrollment, and decreasing in dropout ratio of students.

Under the intervention, science materials were provided to the students that have considerably improved grasping power and increased interest in learning outside of textbook knowledge. **Providing science materials in the schools under the HDFC Bank project made learning far more engaging and interactive. This considerably increased the enrollment ratio according to qualitative findings. This made the**

intervention a successful one as students' learning outcomes improved according to qualitative findings. During the qualitative study, teachers reported that due to the upgradation of the school infrastructure facilities, they were able to deliver the courses more efficiently and the quality of teaching was also enhanced. Setting up computer labs under the intervention has helped students learn basic computing skills.

When asked about the support received from the HDFC Bank, 36% of respondents stated that the renovation of schools in villages was supported under the HRDP intervention. As per the survey findings, under the smart class facilities, 100% of respondents stated that under the intervention their schools were painted with messages and wall paintings (BaLA), whereas 17% received support under drinking water posts/ RO filters, and 7% received support under learning materials. When asked about the changes observed due to infrastructure development, 86% of the respondents reported improved attendance, concept retention (86%), increase in enrollment (64%), decrease in dropout ratio (36%), improved exam performance (43%), improved attention span (43%)

Teachers also received training during the project period. When teachers were asked about the kind of capacity-building support received through the project, 50% stated training on teaching material development, training on innovative teaching methods (79%), training workshops on child development (50%), and computer/ digital training (21%). When teachers were asked how drinking water posts/ RO filter is helping students, 100% reported students can spend more time at school,

less disease from unclean drinking water (100%), improved attendance (100%), students are less distracted (100%), improvement in school enrollment (60%) after the project.

Of all the respondents, 60% reported a decrease in health issues caused earlier due to unsafe water, 80% reported that now they can spend more time at school and 60% stated that they had access to clean drinking water after the project. When teachers were asked how education paintings help them in teaching, the responses were that this made it easier to - hold students' attention (86%), keep lessons interesting (86%), and understand concepts (71%).

Under the intervention, various awareness generation sessions were conducted at schools such as sanitation, hygiene, and cleanliness awareness generation sessions, world water day, international literacy day, international day against drug abuse, etc. According to the qualitative findings, teachers reported that due to the awareness session held, there has been a 10% reduction in the rate of absenteeism. Although most of the beneficiaries were satisfied with the intervention, because of the less capacity storage tank of RO filters and erratic supply of electricity, clean water was not available to the students all the time. Capacity building of teachers and encouraging SMCs' participation in the decision-making process can ensure the sustainability of the project.

Figure 26 Improvements in school facilities in the last 3-4 years (households) (n=29)

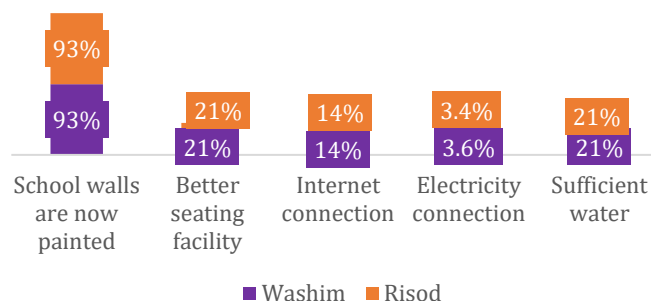
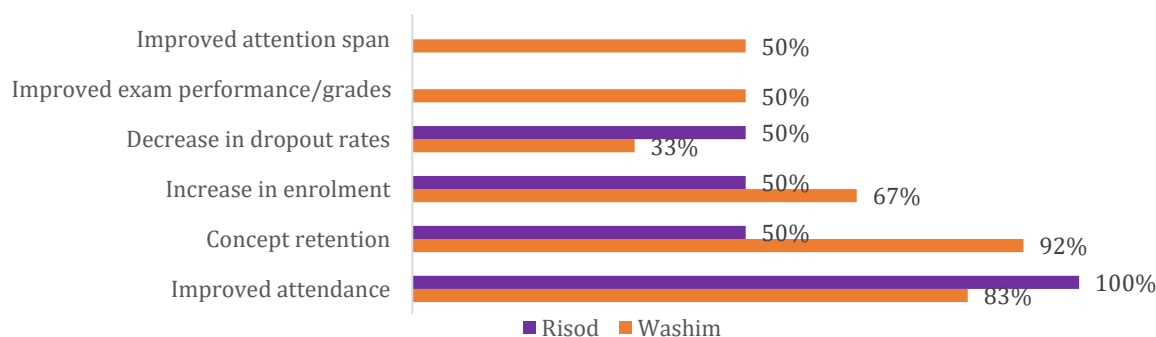


Figure 27 Changes observed amongst students due to project intervention (n=30)



4.6 Sustainability and Replicability

Under the NRM thematic intervention, the project support provided demonstrated the capability to continue even after the program ended. The project's support to sustain improved farm income, agriculture water management, livestock management, SHG-based and individual enterprises can enable improved adoption of sustainable land and water resource management in the targeted landscape. This combined with the focus on institutional and capacity-building requirements can help bring about improvements in the project villages.

Support provided for setting up micro-enterprises such as providing coaching for setting up tailoring businesses has resulted in the economic empowerment of the weaker sections of

society. Since the quality of material support provided was satisfactory, the micro-enterprises established would ensure the sustainability of the intervention. Women are now more financially literate and have developed a sense of confidence to effectively participate in economic activities and to take appropriate decisions for themselves and their families.

In terms of sustainability, under the thematic area of health and sanitation, the RO units established did not have a continuous supply of water due to the erratic electricity supply. For the sustainability of the intervention, options for convergence with government schemes should be looked at in close consultation with the community and respective sarpanch of the village. To spread awareness about COVID-19 and to avoid the spread, brochures were circulated amongst the villagers. Brochures contain information on COVID-19 appropriate behaviour such as social distancing, and the importance of vaccination. Although the programme intervention helped in raising awareness, it can become sustainable if village volunteers are trained to collectively organize people and arrange a health camp at least once in six months by inviting doctors/experts from the Washim district. The construction of soak pits has successfully decreased the spread of vector-borne diseases like malaria and ensured cleanliness in the intervention area.

The sustainability of the support provided has been considered in terms of establishing structures, technical know-how, usage, and maintenance. **The interventions in education have performed well in most aspects of the programme, which has resulted in creating a conducive environment for students, teachers, and parents.** Computers in schools have made learning more interesting and joyous for students. Science materials provided under the intervention have improved the grasping power of students. All these have had direct positive results and have encouraged higher attendance and enrollment. The installation of RO filters has considerably improved the health of students, and as a result, attendance rates have increased in schools. However, the erratic supply of electricity and less capacity storage tank has hindered the continuous supply of water. Post-follow-up intervention would have ensured the sustainability of the programme. Training the School Management Committee to monitor the working of the school and follow the recommendations of the school management plan can help achieve better outcomes.

Table 8 Sustainability thematic matrix

Support provided	Structures established	Technical Know-how	Usage	Maintenance
<i>NATURAL RESOURCE MANAGEMENT</i>				
Construction/ renovation of check dam	✓	✓	✓	✓
Setting up of sprinkler irrigation unit	✓	✓	✓	✓
Mixed cropping, vegetable demonstration and Farm Field Schools	✓	✓	✓	✓
<i>SKILL TRAINING AND LIVELIHOOD ENHANCEMENT</i>				
Livestock Management	✓	✓	✓	✓
Agricultural training and services	✓	✓	✓	✓
Promotion of micro-enterprises	✓	✓	✓	X

Strengthening of SHG-based enterprises	✓	✓	✓	X
HEALTH AND SANITATION				
Soak pits	✓	✓	✓	✓
Installation of RO water purifier	✓	✓	✓	X
EDUCATION				
Educational paintings, school repair work, providing computers to schools, installation of drinking water posts/RO filter	✓	✓	✓	✓
Science materials	✓	✓	✓	✓
Awareness session on health and sanitation for students	✓	✓	✓	✓

4.7 Holistic Rural Development Index (HRDI)

HRDI is a composite index developed to measure and rank the clusters and thereby the NGO partners based on their performances on key outcome indicators across these domains. HDFC Bank in its document explaining HRDI states that since the aim of HRDP was to achieve holistic rural development through a multitude of interventions that would lead to overall improvements across related dimensions and therefore the programme introduced significant variability in the interventions. Therefore, it was not possible to ascribe a single impact indicator that might be able to accurately capture the overall performance of HRDP.

Basis our calculation, the HRDI for the studied clusters is presented in the table below since the programme did not have an available baseline, the baseline was captured through recall during the study. The index above indicates an improvement in various indicators in the project area over the baseline. Typically, HRDI comprises nine key performance indicators selected from the four domains of focus of the HRDP. The indicators selected were based on their relative contribution to the final expected outcome across all domain-wise interventions. Most of the indicators were found to be relevant for the study in the Washim project area but some needed modifications in accordance with the programme as well as with the study design and information collected.

Table 9 Holistic rural development index for the Maharashtra project

Domain	Category	Value
NRM	Baseline	0.12
	End line	0.13
	% Change	8.3%
Skill and Livelihood	Baseline	0.04
	End line	0.05
	% Change	25%
Health and Sanitation	Baseline	0.10
	End line	0.13
	% Change	30%
Education	Baseline	0.11
	End line	0.12

	% Change	9%
Overall HRDI	Baseline	0.38
	End line	0.43
	% Change	13%

The per cent change in HRDI for thematic area skill and livelihood enhancement is 25% due to the intervention that led to the creation of employment opportunities thus empowering the economically weaker section. Under the thematic area-skill and livelihood, the intervention focused on setting up microenterprises, strengthening the SHG, and providing agricultural training to farmers. The improvement in the hygiene condition in each village and a better understanding of health are essential factors contributing to improved health and sanitation practices in the villages. Development of educational institutions such as the installation of computers in schools, the installation of RO purifiers, and the Upgradation of physical infrastructure has led to visible positive outcomes. The interventions successfully worked towards the larger goal of providing quality education to empower the vulnerable sections of society. Whereas under the thematic area of NRM, interventions have led to improved water available for agriculture and improvement in crop productivity.

4. Conclusion

Based on the observations and analysis of primary and secondary information presented in the report, the study presents the following conclusion:

- High-value horticulture crops and vegetable cultivation have been promoted under the programme by means of crop diversification and farm field demonstrations. Farmers have benefited from these interventions in terms of an increase in income and crop productivity. Intervention such as providing sprinkler unit has increased the land area under irrigation. The interventions taken up under livestock management benefitted the respondents by creating an additional source of income for livelihood. To ascertain the sustainability of the intervention, follow-up of the project is important. **According to the qualitative findings, a water budgeting exercise with the community helped the villagers become more aware of the water availability at the village level and develop an appropriate agricultural plan.** Now villagers have been able to plan better according to the need for water for crops, livestock, and drinking purpose. Intervention such as boar recharge has increased the groundwater level These villages successfully demonstrate how the adoption of participatory watershed management practices can transform the geography of the region from drought-prone to water surplus.
- The programme theme aimed at achieving women's empowerment through the creation of SHG-based enterprises such as dal mill units, flour mill unit enterprises, etc. This has improved women's confidence to further expand their businesses and helped in increasing the socio-economic empowerment of women at household and community levels. Enterprises established under the SHG and at the individual level have substantially improved the average monthly income of the beneficiaries. The qualitative study found that the **women participating in the program did report greater economic empowerment and an improvement in status/ quality of life and their overall agency.** Farmers under the intervention were trained in manufacturing and use of natural fertilizers like neem ark, dashparni ark etc. Farmers have started replacing chemical fertilizers with natural fertilizers. 63% of the farmers reported learning the techniques of application of organic manure from HDFC Bank training conducted under the intervention.
- Earlier villages in the intervention area did not have access to safe and clean drinking water. Due to high fluoride levels, they suffered from various diseases. **With the installation of RO filters, not only the villages under the HDFC Bank project have been benefitted but also the neighbouring villages now have access to clean drinking water.** The awareness generation session conducted has improved awareness of the importance of a balanced diet and frequent body checkups.
- The program had established drinking water facilities in the schools, however, a maintenance fund under the school committee is required for better maintenance and upkeep of the facility created. Science materials provided under the intervention and computers have changed the relationship between teacher and learner and have the potential to be more than a medium for the transmission of knowledge. But this needs to be backed by new skills, competencies, and attitudes among teachers who are going to design and develop materials and support learners using these aids. It is not enough to establish the basic infrastructure, it has to be consistently maintained and upgraded.

5.1 Summary of findings

Natural resource management

The project intervention aimed at improving the water availability in the drought-prone region of the Washim block and Risod block, Washim district. The project tried to improve the availability for agriculture and drinking water purpose. For this, the check dams were renovated and constructed, water budgeting exercises were conducted for the community, and melas were organized for farmers. . It is aimed at the creation of sustainable livelihood opportunities for the community. Mixed cropping was promoted to reduce the risk of crop failure. The project has promoted livestock rearing as it would help in the creation of an alternative source of income. The livestock product market is local and provides a good source of income, especially for the economically weaker section of society. Hence the promotion of livestock such as goat rearing, and poultry can be considered a promising intervention. Water budgeting exercise with the community helped in the awareness generation about water availability and making an appropriate agricultural plan.

Skill training and livelihood enhancement

The rural population in Maharashtra is prominently dependent on agriculture and allied activities for their livelihood. A significant proportion of the rural population is at a subsistence level of income and livelihood. For the sustainable development of the rural community, the state government has made substantial efforts toward the promotion of micro-enterprises. However, despite the efforts, lack of access to the market, and inadequate infrastructure are some of the impediments that the state faces. Under HDFC Bank intervention, SHG groups in the villages were empowered to start their own enterprise. Daal and flour mill unit, goat rearing, and promotion of tailoring business by providing coaching to young women were some of the interventions supported by the project. Women were made financially literate and started participating in economic activities. Besides this, organic farming was promoted by providing training on the preparation of neem ark and dashparni which are organic manures.

Health and sanitation

Under the HRDP program, awareness generation sessions were organized, and soak pits were constructed. It was much needed as the rural community lacks awareness about the importance of appropriate COVID-19 behaviour and protocols that need to be followed to avoid the spread of the pandemic. Setting up RO units in the villages has reduced the frequency of diseases caused due to drinking water with high fluoride levels in the water. The construction of soak pits has ensured cleanliness in the intervention villages and controlled the spread of vector-borne diseases like malaria and dengue.

Education

The project is working on promoting quality education through infrastructure improvements and awareness generation activities. Various learning aids such as computers, science learning materials, educational paintings, and RO units, were provided under the intervention. This helped in improving the knowledge and learning outcomes of students. Post-intervention, students have been taking more interest in learning and their grasping power has considerably improved.

5.2 Recommendations

Based on the observations and analysis of primary and secondary information presented in the report, the study recommends strategies for the program to meet the desired outcomes better.

Natural resource management

A system may be put in to check on beneficiaries who adopted practices such as mixed cropping. The idea of mixed cropping was quite new for the farmers in the intervention villages as before the intervention, mono-cropping was widely practised. In such situations, continuous dissemination of knowledge either through parivartaks/village volunteers or frequent visits from agricultural experts. This can ensure farmers' trust in the practice of crop diversification and reduce the risk of crop failure. There is a need to ensure that the farmers have time-to-time access to extension services available through KVKs or experts from agricultural universities who can assist them in the easy adoption of scientific practices. Time-to-time dissemination of practices and follow-up services are required. Farmers must be encouraged to adopt new technologies and learn new practices. Activities around connecting farmers directly to consumers or linking them to smaller market channels would have impacted farmers' share in consumer prices. Further, promoting post-harvest techniques for collection and storage can impact the shelf-life and quality of products.

Skill training and livelihood enhancement

The qualitative and quantitative study found that the women participating in the program did report greater economic empowerment and an improvement in status/quality of life and their overall agency. Women who learned about the manufacturing of organic manure and saw visible results in terms of higher prices started demonstrating and transferring the knowledge to the other members of the community. Post-intervention, a good number of farmers have started cultivating vegetables which are used both for self-consumption and selling. Activities around connecting women entrepreneurs with the markets can ensure better market linkage and better prices for their produce due to the unavailability of markets. More needs to be done on developing self-sustainable individual and group-level enterprises. While the programme focuses on ensuring that the needs of the community are met, it is very critical to thoroughly analyze the input and standardize its quality to achieve the desired outcomes.

Health and sanitation

As the RO units entail recurring operation costs due to the bursting of pipelines in the villages, options for convergent efforts with the community and respective sarpanch of the village should be looked at. An agreed plan of action for the community may be prepared to ensure sustainability. Parivartaks should be trained in each village to organize frequent health awareness sessions for the community, encouraging them to adopt sanitation and hygiene practices along with regular health checkups.

Education

To optimize the use of educational aids, the capacity building of teachers needs to be ensured. Parents must be encouraged to take active participation in the development of schools. An asset maintenance fund/ committee needs to be established in the program-supported schools to ensure the necessary maintenance of supports such as drinking water posts and smart classes. Proactive convergence with ongoing schemes of the government will ensure efficient use of resources. Post-follow-up intervention to ensure the sustainability of the project is necessary.

6. Annexures

6.1 Detailed Activity list

SI No	Focus area	Category	Sub-category	Activity	Beneficiary Type
1	Promotion of education	Educational Institutions Development	Infrastructure - Infrastructure renovation	Educational paintings, school repair work, installation of school library- providing computers to schools, installation of drinking water posts/RO filter, , awareness, health and sanitation sessions for students	Students and teachers
2	Health and sanitation	Sanitation	Community health session, Construction/ Renovation	Health awareness input session, setting up of RO units, health camps, soak pits	Community
6	NRM	Farm Management	Crop Diversification	Demonstration of methods of crop diversification, mixed cropping	Farmers
7	NRM	Water management for agriculture	Farm technique – Other	Installation of sprinkler irrigation unit, boar recharge, check dam construction/ renovation, water budgeting exercise with the community.	Farmers
8	NRM	Farm Management	Farm technique – Other	The farm field school, organic manure preparation, organizing mela, and climate resilience camp, exposure visits	Farmers
9	Skill development and livelihood enhancement	Skill Training	Skill Training	Training cum entrepreneurship development support to SHG groups	SHG groups
14	Skill development and livelihood enhancement	Entrepreneurs hip Development	Goatry	Development of Goat breeding farm.	Farmers
19	Skill development and livelihood enhancement	Entrepreneurs hip Development	Other Small business	Tailoring coaching for young women	Individual

6.2 Sampling methodology

6.2.1 Quantitative sample size calculation

For this study, the formula for the calculation of finite sample size for the 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 the 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

Quantitative sampling methodology

In this cluster, twelve intervention villages were selected for the study.

Stage 1 – Selection of villages

All the intervention villages were selected as sample villages. Sample from each village was selected by using Probability Proportionate to Size (PPS) sampling method. Care was taken to cover the maximum sample from the villages that have received a maximum number of interventions in order to get appropriate coverage of all components of the program.

Stage 2 – Selection of beneficiaries

The list of beneficiaries was obtained from the implementing partner – Ugam Gram Vikas Sanstha. Since beneficiary selection was undertaken independently for each programme, the selection of more than one beneficiary from a single household was probable. Also, there have been instances where a single beneficiary received multiple support for the intervention.

6.2.2 Qualitative sample size calculation

Qualitative tools such as in-depth Interviews (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, the 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.

6.4 HRDI Methodology

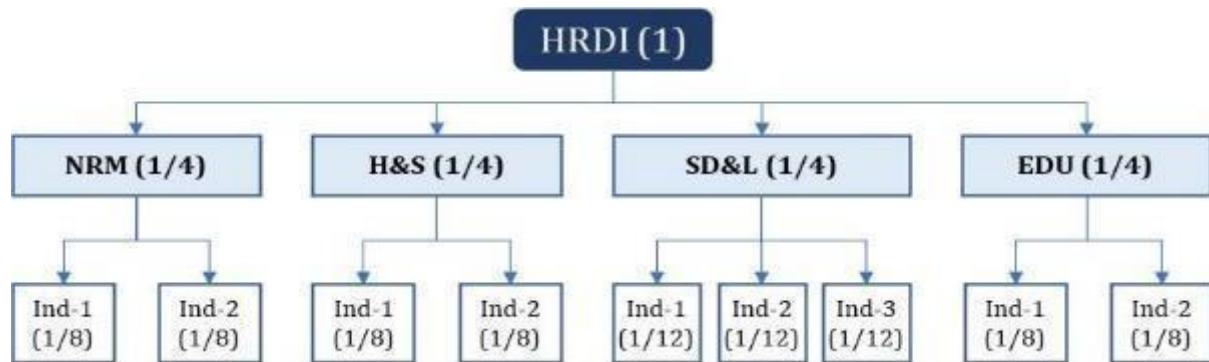
The outcome indicators included in the HRDI were obtained from different domains and are consequently measured on different scales. Therefore, to ensure the comparability of these indicators, all the indicators were converted into discrete variables so that the indicators could be measured between 0 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.**

Indicator Weights

Weights were applied to each of these indicators, along similar lines to the HRDI calculation. Attribution of equal weights to all the domains was 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 the equal weightage of the domains was maintained overall.

Domain and indicator weights⁵



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.

Main	Indicator	Weight
Project X		
Natural Resource Management	Average net income from farming	$(1/4) \times (1/3) = 0.083$
	Percentage of farmers reporting access to irrigation	$(1/4) \times (1/3) = 0.083$

⁵ NRM: Natural Resource Management | H&S: Health and Sanitation | SD&L: Skill Development and Livelihoods | EDU: Education

	The area under irrigation (Ha)	$(1/4) \times (1/3) = 0.083$
Health and Sanitation	The average number of months with access to adequate drinking water	$(1/4) \times (1/3) = 0.083$
	Percentage of households with access to an improved toilet facility	$(1/4) \times (1/3) = 0.083$
	Percentage of households utilizing soak pits	$(1/4) \times (1/3) = 0.083$
Livelihoods and Skill development	Average monthly income of household from Livestock (INR)	$(1/4) \times (1/3) = 0.083$
	Average monthly income from enterprises (INR)	$(1/4) \times (1/3) = 0.083$
	Average monthly income of SHG women from enterprise (INR)	$(1/4) \times (1/3) = 0.083$
Education	Percentage of students reporting increased access to functional school physical infrastructure (drinking water posts, separate washrooms, etc.)	$(1/4) \times (1/2) = 0.125$
	Percentage of students reporting increased access to functional learning infrastructure (library, science labs, learning aids, etc.)	$(1/4) \times (1/2) = 0.125$

Once all the indicators were standardized and weighted, a sum of these weighted indicators was utilized to calculate the value of HRDI.

Analysis Plan: HRDI for each cluster/ NGO was calculated at two points in time, i.e., before and after HRDP and can be compared cross-sectionally to understand which domains contributed to an increase or decrease in HRDI value. Concurrently, the NGOs can be ranked according to the HRDI score based on their performance across different domains, but care should be taken as the project context varies for each area. Since the value attribution of the indicators is in proportion, the HRDI value numerically ranges between 0 and 1.

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, at baseline, and then sort all the farmers across the seven clusters 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 end-line i.e., the proportion of beneficiaries above the baseline cut-off for each indicator.

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

Step-6: Sum all the indicators (i.e., the weighted sum) to calculate the HRDI value at baseline and end-line.

Step-7: Calculated the relative change in the HRDI value from the baseline to the end line.

Step-8: Ranked the clusters based on relative change brought about in the HRDI value i.e., the cluster that brought the maximum change in the HRDI value received the first rank

Domain	Indicators	Baseline	Weight	HRDI	Endline	Weight	HRDI	% Change
NRM	The average productivity of crops (3 major crops) grown (quintal per acre)	20.00	33%	0.12	21.00	33%	0.13	8.3
NRM	The proportion of farmers reporting net farm income above the baseline median	50.00	33%		59.00	33%		
NRM	Percentage of farmers having irrigated land	78.00	33%		77.00	33%		
H&S	Increase in the percentage of people using individual toilets	73.00	50%	0.10	75.00	50%	0.13	30
H&S	The percentage of people disposing of liquid waste in soak pits	9.00	50%		28.00	50%		
Skill	Percentage of members reporting entrepreneurial activities undertaken by SHGs	10.40	33%	0.04	13.40	33%	0.05	25
Skill	Percentage of respondents following agricultural practices (application of organic manure, construction of vermicompost pits, timely application of fertilizers, conservation agricultural practices)	28.00	33%		33.00	33%		
Skill	The proportion of beneficiaries reporting a monthly income of SHG from enterprise above the baseline median	7.19	33%		13.25	33%		
ED	Percentage of teachers reported conducting sanitation, hygiene, and cleanliness awareness generation session	45.00	100%	0.11	47.00	100%	0.12	9

6.5 Overview of project effectiveness and impact tables

An overview of project effectiveness and impact on education (based on the quantitative findings)

1. Improved capacity of educational institutions to provide services				
1.1 Access to improved physical infrastructure	(a) Proportion of schools who report gaining access to functioning smart classrooms/ Bala/science labs/libraries/learning aid/furniture/sports equipment	37%	60.5%	Medium
	(b) Proportion of schools that gained access to clean and functioning sanitation units/drinking water posts at educational institutions	36%		
	(c) Proportion of teachers who report improvements in teaching quality	66%		
	(e) Proportion of teachers reporting improved capacity to adopt innovative teaching methods (Base= teachers who received training)	86%		
	(f) Awareness among teachers regarding child development (Base= teachers who received training)	86%		
1.2. Improved willingness to engage in school activities	(a) Teachers reporting improvements in attendance due to improved infrastructure	86%	70%	Medium
	(b) Proportion of teachers reporting an increase in enrolment post infrastructure development	64%		
	(c) Proportion of institutions reporting a decrease in dropout rates	36%		
2. Improved learning outcomes				
2.1 Improved exam performance and subject confidence among students	(a) Proportion of students who gained access to coaching classes	NA	51.2%	Medium
	(b) Proportion of students who report improvements in access to reference material	39%		
	(c) Proportion of students reporting an increase in confidence in various subjects (lessons are easy to understand, more interesting, etc.)	64%		
	(d) Proportion of students who received scholarships	NA		
3 Improved Awareness				
3.1 Improved Awareness among students, parents, and teachers	(a) Awareness activities conducted	73%	73%	High

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

An overview of project effectiveness and impact and health and sanitation (based on the quantitative findings)

1. Improved health infrastructure and services				
1.1 Establishment/ enhancement of health infrastructure and services	(a) Proportion of beneficiaries who gained access to health services	96.5%	85%	High
	(b) Proportion of beneficiaries who consulted medical references from camps	100%		
2. Improved awareness and health-seeking behaviour				
2.1 Awareness regarding health and sanitation practices	(a) Improved dietary practices/ reduced tobacco consumption/ improved physical exercise	66%	83%	High
	(b) Improved awareness regarding cleanliness and sanitation practices	100%		
3. Improved availability and management of water				
3.1. Access to drinking water at household and community levels improved	(a)The proportionate increase in the average number of months with access to clean drinking water	0%	0%	Low

An overview of project effectiveness and impact on skill training and livelihood enhancement(based on the quantitative findings)

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	79%	52%	Medium
	SA.i(b) Proportion of farmers who demonstrate awareness regarding sustainable farming practices	25%		
S.A.2.Adoption of improved farming practices	SA.ii(a) Proportion of farmers who adopt conservation agricultural practices	18%	27%	Low
	SA.ii(b) Proportion of beneficiaries reporting an increase in productivity due to better farm management	36%		
	SA.iii(c) Proportion of farmers reporting increased income	28%		
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	56%	53%	Medium
	SB.i(b) Proportion of members who received support with establishing/reviving SHG enterprises	11%		
	SB.i(b) Proportion of members whose SHGs are currently functioning	91%		
SB.2 Development of entrepreneurship	SB.ii(a) Proportion of SHG members who received training	46%	37%	Low
	SB.ii(b) Proportion of SHG members undertaking entrepreneurial activities	13%		
	SB.ii(d)Proportion of SHGs with increased savings	65%		
	SB.ii(e) Proportion of SHG members reporting improved income	24%		
SC. Enhanced capacity for regular income generation				
	SC.1(a) Percentage of youth who accessed skill development training	50%	75%	High

SC.1 Enhanced employable skill development	SC.1(b) Percentage of youth who report improved income through skill development	100%		
SC.2 Access to self-employment and	SC.2(a) Proportion of beneficiaries who established/ expanded entrepreneurial activities	34%	34%	Low
SD. Improved capacity to generate income through livestock management				
SD.1 Adoption of scientific management of livestock	SD.i(b) Proportion of beneficiaries reporting an increase in income from livestock management	19%	40%	Medium
	SD.i(c) Proportion of beneficiaries reporting improved livestock health	60%		

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

An overview of project effectiveness and impact in natural resource management (based on the quantitative findings)

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	28%	17%	Low
	NA1. (b) Proportion of farmers reporting a reduction in input cost	7%		
	NA1. (c) Proportion of farmers reporting increased income from crops that were supported under HRDP.	18%		
	NA1.i(d) Average increase in income from crops that were supported under HRDP (% change)	25%		
	NA1.I (e) Average increase in productivity from top three crops that were supported under HRDP (% change)	3.2%		
	NA1.i(f) Average decrease in input cost (% change)	20%		
N.A2. Access to the farm management infrastructure	N.A2(a) Proportion of beneficiaries satisfied with the quality of available services (in farm management)	30%	31%	Low
	NA2. (b) Proportion of farmers reporting support in agriculture	38%		
	NA2. (c) Proportion of farmers reporting project interventions leading to an increase in income	11%		
	NA2. (e) Proportion of farmers currently practising organic farming/conservation agriculture/other sustainable practices	1.4%		
	N.A2.(f) The proportion of farmers reporting an increase in the use of natural fertilizers?	76%		
	NA3. (a) Proportion of farmers diversifying their crops with project support.	21%	38%	Low

NA.3 Increased adoption of crop diversification	NA3. (b) Proportion of farmers who report income increase due to crop diversification (base = farmers who adopted crop diversification)	55%		
NA.5 Land under irrigation	NA4. (a) Increased area under irrigation	NA	1.4%	Low
	NA (4). (b). The proportion of farmers who received support for irrigation	1.4%		
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	79%	63%	Medium
	SA.i(b) Proportion of farmers who demonstrate awareness regarding sustainable farming practices	47%		
S.A.2.Adoption of improved farming practices	SA.ii(a) Proportion of farmers who adopt conservation agricultural practices	24%	24%	Low

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