The Hans Foundation

Thinkthrough Consulting

Evaluation of Livelihood Enhancement through Land, Water Resources and Agriculture Development in Jhabua, Banswara and Jhalawar Projects

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Executive summary

Agriculture, with its allied sectors, is the largest source of livelihoods in India. Despite the immense contribution of agriculture to the Indian economy, the sector still lags in terms of efficient technologies, productivity, scientific package of practices, and water and soil conservation, which is the need of the hour. Developing sustainable and adequate infrastructure for water resources, incorporating better agriculture practices along with diversification of livelihood sources has been a crucial policy agenda in several Indian states.

To address these aforesaid issues and to contribute towards the state and national agriculture agenda, in 2015, The Hans Foundation initiated a livelihood enhancement project in partnership with N.M. Sadguru Water and Development Foundation. The project was an initiative for creating livelihoods through land, water resources and agriculture development in backward and marginalized communities across the districts of Jhabua in Madhya Pradesh; Banswara and Jhalawar in Rajasthan. The project implementation period was 2016 to 2019 (for a period of 3 years) in the districts of Jhabua and Banswara, whereas in Jhalawar the implementation period was years i.e., 2017 to 2019.

To understand the impacts created under the project, Hans Foundation sanctioned an impact evaluation of the project. The study was undertaken by Thinkthrough Consulting (TTC) keeping the OECD DAC evaluation criterias as the study framework under which the relevance, effectiveness, efficiency, impact and sustainability of the project were assessed. The study deployed a 3-stage approach (comprising of Inception – Execution – Deliver) to ensure that the results of the study are useful to pertinent stakeholders. The findings of the study are drawn from the selected sample of 16 villages. A range of research tools such as in-depth interviews, FGDs, household survey and structured interviews were used to gain perspective from a variety of respondents at the village and project level. Household survey was undertaken in a total of 630 households along with16 focused group discussions, 16 in depth interviews and 3 structured interviews on technical aspects.

The key findings of the study are given below:

Relevance - The objectives of the program corresponded to the national and global policies and priorities. The project is aligned to Sustainable Development Goals which focus on reduction of poverty, eradicating hunger and strengthening the access to clean water & sanitation. The project further contributes towards policies launched by the Government of India such as Pradhan Mantri Krishi Sinchai Yojna, Pradhan Mantri Kisan Samman Nidhi, Kisan credit facility, Pradhan Mantri Fasal Bima Yojana, Rashtriya Krishi Vikas Yojana (RKVY) along with Rajasthan and Madhya Pradesh state development plans.

In terms of local context, the project is relevant to the community's needs and aspirations as it is focused on promoting sustainable agriculture activities, land & water resource development initiatives to improve the local natural resource management which is the need of local community as the project districts have several geographical disadvantages.

Effectiveness - Through interaction with the farmer beneficiaries, the research team found several changes that have occurred due to the project intervention. These changes are in terms of agro-socio-economic changes, as well as knowledge enhancement of the beneficiaries. The findings indicate that the project was successful in achieving its set targets for most of the planned interventions across the 3 locations and no major variation was observed except in activities such as soil testing, seed grading, packaging and marketing.

Owing to the developed water related infrastructure during the early 2000s and within this project, the access to water has improved. This has resulted in community being able to grow a second crop which was limited to only one prior to the captioned period. The community recalled availability of better-quality seeds and practices related to seed treatment. Farmers shared that the agricultural yield has also improved. The project interventions such as horticulture, vegetable cultivation, floriculture was well received by the beneficiaries across all three locations.

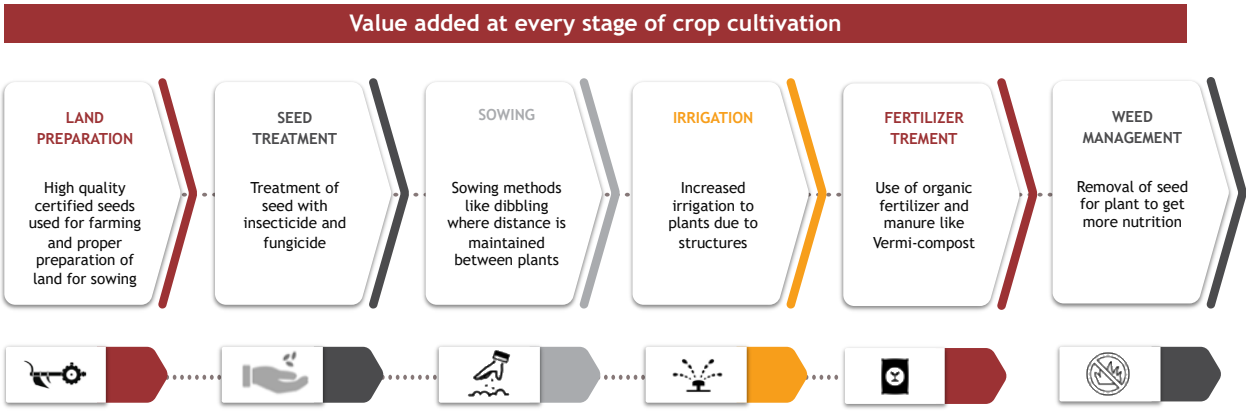
The FGDs revealed that these practices were not a part of the conventional agriculture practices of the region and its introduction can be completely attributed to the project. The farmers adopted two tier farming system of ginger, turmeric, smooth gourd, pointed gourd, cucumber etc., along with open field cultivation of tomato, brinjal, chili, cauliflower etc. The farmers showed good recall value for the trainings conducted and shared detailed process followed during a crop cycle. The discussions revealed there is an evident change in PoPs before and after the project interventions and the beneficiaries have managed to successfully integrate some of sustainable practices.

However, there have been some aspects of the project which are in the nascent stage of realization and implementation by the farmers. Vermicomposting has been sustained by a smaller section of the beneficiaries; particularly those with the permanent compost structures. There is still an unmet and incremental need for water in the community which may be due to an increase in aspirations and lack of awareness on water management concepts such as water budgeting. The community also lacks knowledge on how to access better quality seeds post the project intervention.

Efficiency - The project was able to attain the objectives within the stipulated resources in terms of time, capital, and human. However, the organogram and SOPs varied in the respective project locations and cross learning mechanisms among the three districts were not evident. In addition, beneficiary selection mechanisms for activities such as floriculture, vegetable cultivation, biogas etc. is not standardized and documented at the project level.

Impact - Improvement was observed against various study indicators. The key impact areas are below:

- ✓ The gross income in Banswara and Jhabua has increased by 90% and 200% respectively over baseline. In Jhalawar, it is still close to the baseline levels. The primary contributors to the increased income are agriculture (including seed business), vegetable production, livestock, and labour. The change in farming patterns owing to change in agricultural PoPs (package of practices) has resulted in improved yield in quality as well as quantity (basis the baseline). The key value additions in the agricultural PoPs reported by the farmers are illustrated below:



However, it was observed that to continue the use of better - quality seeds which were shared under the project, the farmers are relying upon local markets. This has contributed towards an increased cost of cultivation for majority of the beneficiaries

- ✓ Around 31% of the overall respondents had chosen to treat their seeds after receiving technical inputs. The beneficiaries in Banswara have seen significant change of about 34.8% respondents treating their seeds before sowing. About 29.7 and 31.5% respondents in Jhabua and Jhalawar, respectively have chosen to treat their seeds after receiving technical inputs from the project team. An average of 84.3% respondents have changed their fertilizer usage. The farmers responded change in fertilizers has helped them improve productivity. About 57.7% respondents expressed that crop productivity has increased due to change in fertilizer.

- ✓ There has been an increase in the number of farmers engaged in crop production in Rabi season but no significant change in the number of farmers for Kharif season. This may be because Kharif crops are conventionally rain-fed due to the advent of monsoons. However, area under cultivation and yield has increased under both seasons.
- ✓ 67 respondents out of 630 reported to have gotten their soil health tested. These account for 10.6% of the total respondents. The representation of respondents who have changed their agricultural practices after getting the soil tested is 1-2%. During the interaction with beneficiaries, they reported not having the soil health cards.
- ✓ Irrigated land accounts for approximately 80.3 % of the total landholding. The remaining 19.7 % is land that is rainfed or unirrigated. Approximately 91.9 % of those surveyed reported accessing the water for irrigation through the structures created under the project. Groundwater is the primary source of irrigation for 87.9 % of the respondents. Around 50.5% respondents think the water related assets created under the project has resulted positively in change in water table.
- ✓ Of all the respondents, 20.75% respondents have reported to have gotten a biogas plant. The relevance of biogas interventions not visible for the project other than a few households who have received the benefits.
- ✓ The project has created leadership among the community with community response persons and lead farmers. The exposure visits, regional events and on-field demonstrations have motivated CRPs as well as lead farmers to innovate and incorporate sustainable agricultural techniques into their agricultural practices.

The way forward –

Basis the findings of the study, the project team is recommended to look into the following:

- Identify the scope for formation or strengthening of farmer owned institutions such as Farmer Producer Organizations (FPOs).
- Strengthen or create Water User Groups and capacitate them on conflict management along with outlining the roles and responsibilities of the members for operations and maintenance of the structures.
- The project should be designed in a way that the future demands of the community are also taken into consideration for a long-time viability of the interventions. Further, interventions on water efficiency techniques such as drip irrigation also need to be scaled up.
- Develop standardized SOPs with criterions mentioned for beneficiary selection.
- Use e-portals like e-NAM portal and e-MITRA's (in Rajasthan) to facilitate the farmers for on-line trade of the aggregated produce and avail the benefits of transparent online trading.

- Study the supply value chain for different agricultural produce including vegetables and establish linkages with off-taker companies rather than just be dependent on Mandi's for business.
- Several government programs could be further used to benefit the project. PM Kisan Samman Nidhi, Kisan Credit Card, Soil Health Card, Rashtriya Krishi Yojana, Bima Yojana, The Vikas Yojana and PM Fasal, are a few of these schemes.
- The existing capacity of community resource person and leader farmers can be strengthened further in terms of understanding the supply value chain and should be introduced to better package of practices.
- The project could create mechanisms for peer-to-peer learning with incentivization for lead farmers. This could expand on cross learning and knowledge creation for all farmers.
- The project could use an audio-visual mechanism to share knowledge material, eliminating the need for beneficiaries to read.
- The SOPs may be developed for needs assessment, reporting and documentation, standard learning outcomes from beneficiaries.
- Setting of KPIs and targets for outputs and outcomes as well as development of M&E framework with standard indicators for outputs, outcomes, and impact along with a set of frequency for reporting for all three locations.
- Standardization of reporting format, frequency and language across all locations for comprehensive monitoring and evaluation.
- Ensuring cross learning among three locations and incorporation of best practices of each into the implementation plan, through periodic meetings.

Section 1

Background

1. Background

1.1. The Hans Foundation

Established in 2009, The Hans Foundation (alternatively used with THF in this document), is a Public Charitable Trust that provides funding support to Not-for-Profit organizations in India. THF's programmes are targeted towards the rural and the most under-developed areas in the country. Over the years, THF has collaborated with state and central governments, institutions, corporates, academia, and non-government organizations for sustainable interventions. The organization aims to address the key issues of poverty alleviation, economic inequalities, and having a 360° impact on the quality of life through its numerous social development programs through the following themes:[1]

Figure 1: Thematic areas: The Hans Foundation

1.2. N.M. Sadguru Water and Development Foundation

Began in 1974, N M Sadguru Water and Development Foundation (alternatively used with N.M. Sadguru in this document) is a non-government, non-political, not for profit, secular organization, registered under the Public Charitable Trust Act and the Societies Registration Act (1860) and the Foreign Contribution (Regulation) Act. Its main objectives are to improve the living conditions of rural and tribal people by developing environmentally sound land and water resources programmes; improve the environment and eco-system; arrest the distress migration; improve the socio-economic status of rural people and strive for their overall development. This is promoted by facilitating the growth of community-based institutions that support and sustain the Natural Resources Management programmes.[2]

[1] https://thehansfoundation.org/
[2] http://www.nmsadguru.org/Aboutus.php

1.3. About the partnership

In 2015, The Hans Foundation initiated a livelihood enhancement project in partnership with N.M. Sadguru Water and Development Foundation. The project was an initiative for creating livelihoods through land, water resources and agriculture development in backward and marginalized communities across the districts of Jhabua in Madhya Pradesh; Banswara and Jhalawar in Rajasthan. The project was implemented with an objective to improve the living conditions of the rural poor and tribal households on a sustainable basis. The project implementation period was 2016 to 2019 (for a period of 3 years) in the districts of Jhabua and Banswara, whereas in Jhalawar the implementation period was years i.e., 2017 to 2019.

1.4. Project Context

Agriculture, with its allied sectors, is the largest source of livelihoods in India. As the Indian economy has diversified and grown, agriculture's contribution to GDP has steadily declined from 1951 to 2011. While achieving food sufficiency in production, India still accounts for a quarter of the world's hungry people and is home to over 190 million undernourished people. Incidence of poverty in India is now pegged at nearly 30 %. As per the Global Nutrition Report (2016), India ranks 114th out of 132 countries on under-5 stunting and 120th out of 130 countries on under-5 wasting.[3]

Figure 2: Key global indicators

India's position on various global development indexes indicated above suggests that there is a pertinent need to enhance the quality of life for the citizens of India. Further, there also persists several challenges related to natural resources which are detailed below:

Table 1: Water, agriculture, and land concerns in India

Water	India constitutes 16 per cent of the world's population, but the country has only 4 per cent of the world's freshwater resources. With the changing weather patterns and recurring droughts, India has become water stressed[4]
	70 % of India's rural households still depend primarily on agriculture for their livelihood, with 82 % of farmers being small and marginal. While agriculture in India has achieved grain self-sufficiency but the

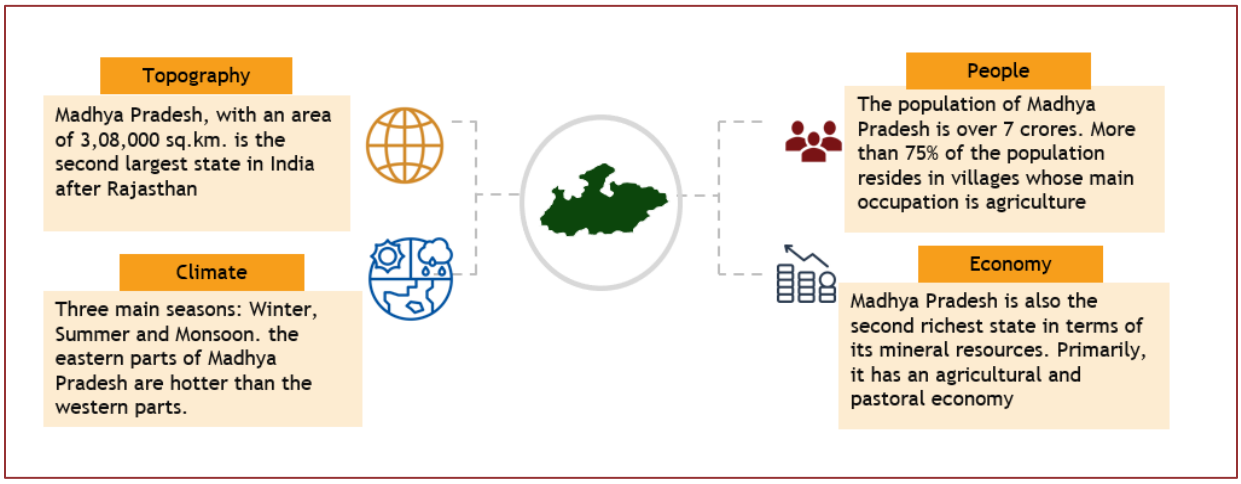
[3] https://www.fao.org/india/fao-in-india/india-at-a-glance/en/
[4] https://www.downtoearth.org.in/blog/water/india-s-water-crisis-the-seen-and-unseen-76049

Agriculture	production is resource intensive, cereal centric and regionally biased. The resource intensive ways of Indian agriculture have raised serious sustainability issues. The social aspects around agriculture have also been witnessing changing trends. The increased feminization of agriculture is mainly due to increasing rural-urban migration by men, rise of women-headed households and growth in the production of cash crops which are labour intensive in nature
Land	As per the Desertification and Land Degradation Atlas of India, 96.4 million hectares i.e., 29.32 per cent of the total geographical area of the country is undergoing the process of desertification. Land use change, land-use intensification and climate change have contributed to desertification and land degradation[5]

The project aims to enhance livelihoods through land, water resources and agriculture development by addressing the above-mentioned natural resource concerns in MP's Jhabua district and Rajasthan's Banswara and Jhalawar districts. The subsequent sections will elaborate upon the socio demographic profile of Madhya Pradesh, Rajasthan, and the specific project districts.

1.5. Project Area

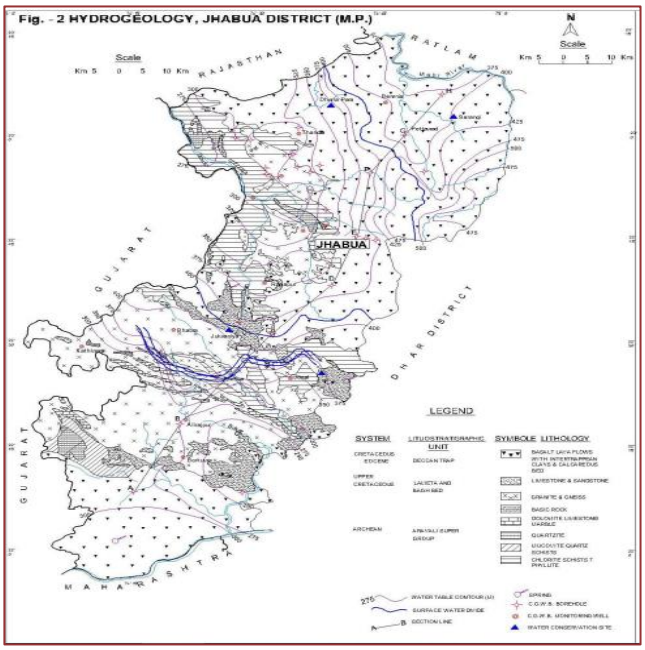
Madhya Pradesh



[5] https://pib.gov.in/PressReleseDetailm.aspx?PRID=1607339

Jhabua District:

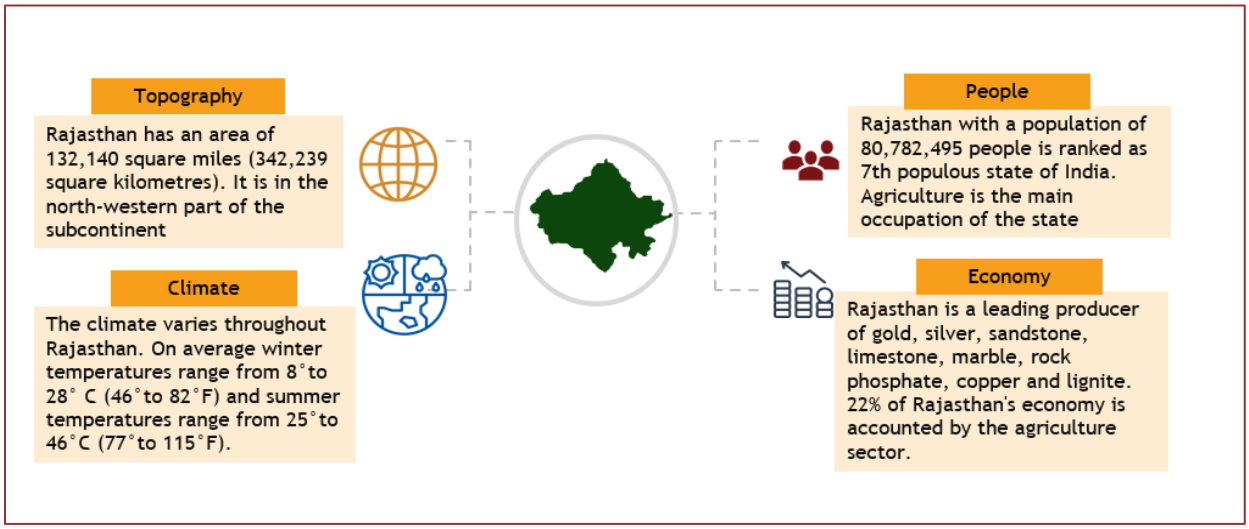
Figure 3: Hydrogeological map: Jhabua



The district consists of 832 villages with a population of 1,025,048. The literacy rate of the district is 43%. Maize is one of the main crops of Jhabua. The district is highly drought prone. In 2006, the Ministry of Panchayati Raj named Jhabua one of the country's 250 most backward districts (out of a total of 640). It is one of the 24 districts in Madhya Pradesh currently receiving funds from the Backward Regions Grant Fund Programme (BRGF)[6]

Agroclimatic conditions – Jhabua lies in *Jhabua Hills Zone* under the Central Plateau and Hills agroclimatic region of India with annual temperature ranging from temperature 41°C to 6°C. The average rainfall in the region is 25 cm – 75 cm with wheat, gram, millets, cotton, pulses, groundnut, and oilseeds as the main crops in the rain-fed areas and sugarcane, rice, and wheat are cultivated in the irrigated areas along with oranges, grapes and bananas.

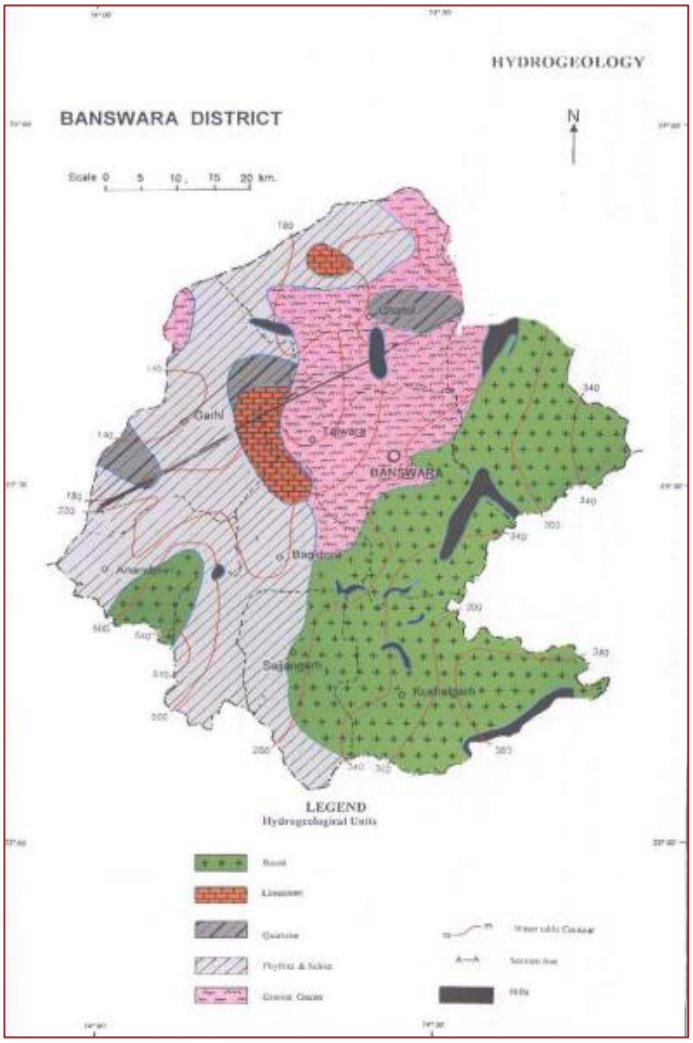
Rajasthan



[6] https://jhabua.nic.in/en/document-category/district-profile/

Banswara District:

Figure 4: Hydrogeological map: Banswara



The total population of the district is 17.98 lac. Out of this more than 75 % population belongs to scheduled tribe category. The literacy rate is 57.20 per cent. The population density of the district is 399 as against 201 in the state. Out of total population, 92.88 per cent are living in villages. The 61.77 per cent farm families of the district belongs to marginal category followed by 20.56 per cent small, 12.65 per cent semi medium, 4.68 per cent medium and only 0.34 per cent in the large farmer's category. The region represents a rugged terrain punctuated by short rides west of Banswara. The eastern part of district is occupied by flat-topped hills of the Deccan trap. The plains are covered mostly by black cotton soil. There are scattered ranges of Aravalli's in the eastern half of the district. The highest range in the south is about 610 meters, in north 440 meters, and in east 510 meter[7]

Agroclimatic conditions – Banswara lies *Humid Southern Plain Zone (Zone IV b)* under the Central Plateau and Hills agroclimatic region with sub-humid and sub-tropical climatic conditions. The annual temperature varies from 41°C to 6°C. The average rainfall in the region is 25cm – 75 cm with Wheat, gram, millets, cotton, pulses, groundnut, and oilseeds as the main crops in the rain-fed areas and sugarcane, rice,

[7] http://dcmsme.gov.in/old/dips/DIPR_%20Banswara.pdf

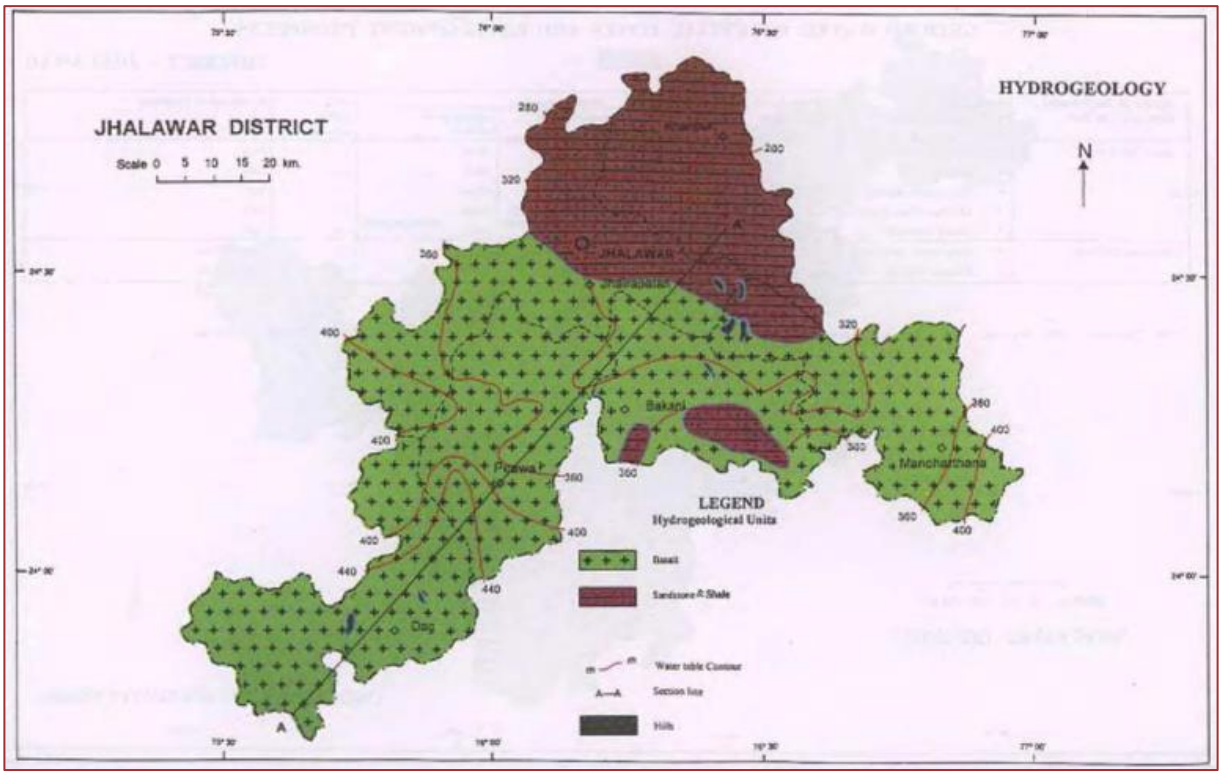
and wheat are cultivated in the irrigated areas along with oranges, grapes and bananas.

Jhalawar District:

The total population of Jhalawar is 14,11,129.[8] There are 1606 villages in the district. Literacy rate in the state is 61.5% according to 2011 census. Agriculture is the main source of income for the district, it also receives the Backward Region Grant Fund (BRGF).[9] It is a rock-strewn, scrub-covered terrain, occasionally bright with fields of poppies and citrus-green groves of oranges. Lying in the south-eastern region of Rajasthan at the edge of the Malwa plateau, Jhalawar has rocky but water laden verdant landscape, unlike much of Rajasthan. Jhalawar district is an expanse of fertile plain having rich black-cotton soil. It is watered by several rivers, giving it a verdant look.

Agroclimatic conditions – Jhalawar lies in the Humid South-Eastern Plain Zone (RJ-9) under Central Plateau Hills agroclimatic region. The temperature ranges from 40°C to 7°C with an average annual rainfall ranging from 50 cm-100 cm. Soils are mixed red, yellow, and black with millets, wheat, gram, oilseeds, cotton, and sunflower being the major crops of the region.

Figure 5: Hydrogeological map: Jhalawar



[8] http://jhalawar.kvk2.in/district-profile.html
[9] https://www.indiastatdistricts.com/rajasthan/jhalawar-district

1.6.Project design

Given the context, the project(s) shared a common goal of improving the livelihoods and socio-economic conditions across the project locations. The set of activities were largely common across the locations, barring the lift irrigation activities that were undertaken in Jhalawar and Banswara, Rajasthan only. The project design is summarized below:

Table 2: Project Design

<table>
<tr><th>S.No</th><th>Broad Areas</th><th>Activities</th><th>Outcomes</th><th>Impact</th></tr>
<tr><td rowspan="5">1</td><td rowspan="5">Development of watershed and water resources along with irrigation systems</td><td>Soil moisture conservation</td><td rowspan="20">1. Increased Income
○ Improved agri. productivity
○ Improved access to better quality / hybrid seeds
○ Improved agricultural package of practices
○ Diversification of income sources
2. Improved availability of water
3. Reduction in migration
4. Improved living conditions
○ Improved sources for nutrition
○ Cleaner cooking fuel</td><td rowspan="20">Improved living conditions of rural poor and tribal households on a sustainable basis</td></tr>
<tr><td>Construction and modernization of check dams</td></tr>
<tr><td>Well deepening and lining</td></tr>
<tr><td>Distribution of Diesel Engine, Gravity drip systems, sprayers, etc.</td></tr>
<tr><td>Installation and renovation of Lift irrigation systems (only in Raj.)</td></tr>
<tr><td rowspan="4">2</td><td rowspan="4">Agricultural development</td><td>Vegetable cultivation</td></tr>
<tr><td>Agricultural production enhancement for Rabi and Kharif crop</td></tr>
<tr><td>Floriculture</td></tr>
<tr><td>Seed production</td></tr>
<tr><td rowspan="2">3</td><td rowspan="2">Other agriculture related activities</td><td>Vermi composting</td></tr>
<tr><td>Kitchen gardening</td></tr>
<tr><td rowspan="3">4</td><td rowspan="3">Training and Capacity building</td><td>Farmers field school</td></tr>
<tr><td>Exposure visits</td></tr>
<tr><td>Training of PoPs</td></tr>
<tr><td rowspan="3">5</td><td rowspan="3">IEC campaign</td><td>Wall paintings</td></tr>
<tr><td>Street plays</td></tr>
<tr><td>Regional events</td></tr>
<tr><td rowspan="3">6</td><td rowspan="3">Improving living conditions</td><td>Biogas</td></tr>
<tr><td>Fiber sheet</td></tr>
<tr><td>LPG connection</td></tr>
</table>

1.7.Scope of work

As a part of its endeavour to meaningfully contribute to sustainable community development, The Hans Foundation commissioned Thinkthrough Consulting (TTC) to assess the impact of its project(s) implemented by N. M. Sadguru.

This End Term Assessment report evaluates the progress across three districts ensuring that the scope of engagement includes:

- Assessment of the project design and framework through a secondary literature review and stakeholder consultations
- Documentation of key processes involved documenting project milestones and achievements
- Evaluation of the impacts (social, economic, environmental) of the project on the stakeholder groups involved in the project and analysis of their perspectives
- Assessment of the project management arrangements, project outcomes and, impacts on the overall environmental sustainability in rural communities of the project coverage districts
- Documentation of the lessons learned and provide recommendations for the next phase of the project with a focus on strengthening of the project(s)

1.8.Evaluation Approach

The evaluation has been carried out using a mixed methodology consisting of both qualitative and quantitative methods for collecting required data/information, and developing insights based on robust analysis. An evaluation framework was used as a guide to the entire process for mapping stakeholders, designing data collection tools and plan for data analysis. The framework captured the economic, social and environment dimensions of the impact. It ensured the following questions were answered and adequately addressed:

- What will be evaluated? (i.e., what is "the project" and in what context does it exist?)
- What aspects of the project will be considered when assessing its performance?
- What standards (i.e., type or level of performance) must be reached for the project to be considered successful?
- What evidence will be used to indicate how the project has performed?
- What conclusions regarding project performance are justified by comparing the available evidence to the selected standards?

Development Assistance Committee (DAC) criteria developed by Organization for Economic Cooperation and Development (OECD) and practiced globally for the end term evaluation has been used for drafting the evaluation framework for this study. The parameters covered for this engagement include Relevance, Effectiveness, Efficiency, Impact and Sustainability.

Figure 6: OECD parameters

1. Relevance

- *Is the project design aligned with the intended outcomes?*
- *Are the project activities and outputs consistent with the intended outcome and impact?*
- *Whether the results, purpose and overall objectives of the project are in line with the needs and aspirations of the beneficiaries?*

2. Outcomes and Impact

- *What changes have happened due to the project in the project area and target audience?*
- *What is likely to happen?*
- *Were the changes intended or un-intended?*
- *What changes do different stakeholders report?*

4. Efficiency

- *Does the quantity and quality of the results of the project justify the quantity and quality of the means (financial and human) used for achieving them?*
- *Where do the project stand in comparison to other similar projects in terms of resources employed and results achieved?*

3.Effectiveness

- *To what extent has (or is likely to be) the project purpose been achieved, and to what extent is the achievement a result of the project?*
- *Are the project outputs, outcomes, and impacts measured adequately? Are they documented and reported at right frequency?*
- *Is the community engaged and aware about what the project seeks to achieve?*

5. Sustainability

- *What has happened (or is likely to happen) to the positive effects of the project after the external assistance has (or will) come to an end?*
- *Are the targeted beneficiaries willing to own and manage the infrastructure created through the project?*

The next section will discuss in detail the methodology adopted to evaluate the project in the three districts on the above-mentioned parameter

Section 2

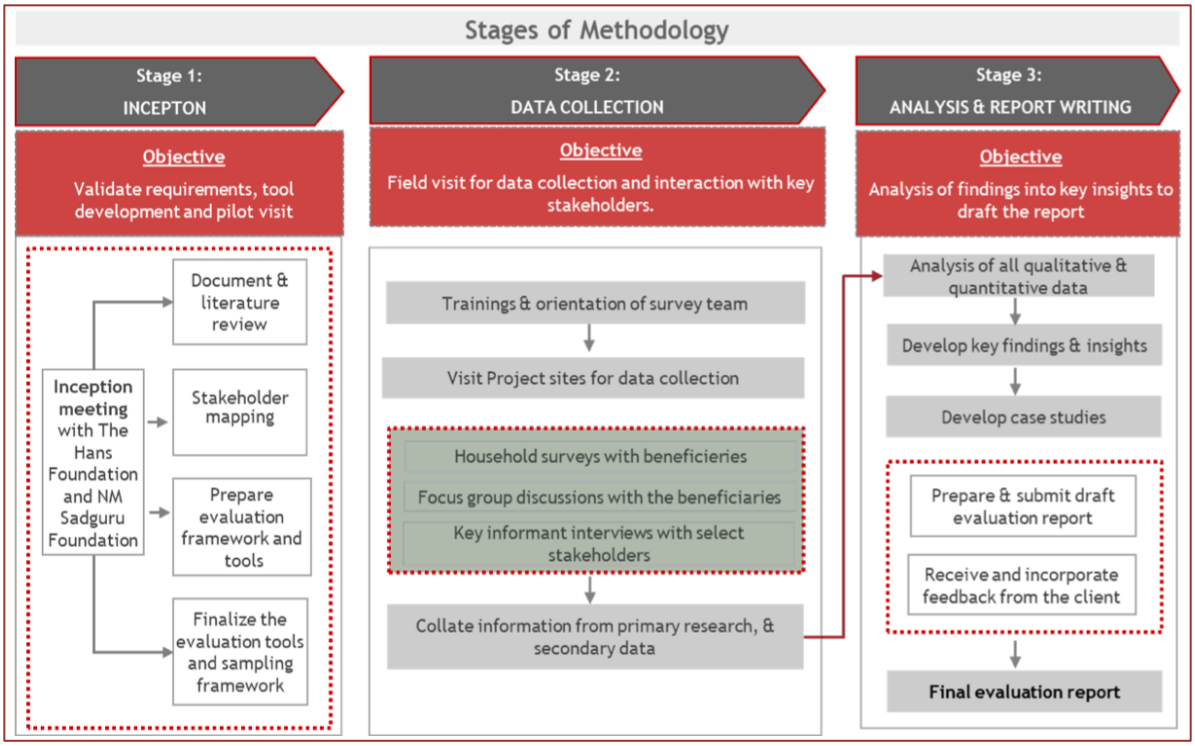
Methodology

2. Methodology

2.1. Methodology and work steps

The approach was contextualized to the requirements of the assignment. The assignment was conducted in three stages outlined below:

Figure 7: Overall methodology



The assessment leveraged a mixed methodology included both qualitative and quantitative assessment. The primary research tools were the in-depth interviews and household survey with project beneficiaries to record the achievements and impact of the project. The focused-group discussions were used to assess community's current practices and contribution in the project.

The assessment was carried out in different phases – inception, data collection and final reporting / analysis. The details of each phase are described in detail below:

2.2. Inception Meeting

The first stage for the engagement was an inception meeting held with THF management team to finalise, deliverables, approach, timeline, communications, protocol, and responsibilities. The meeting brought to light how THF was formed along with insights into their vision, alignment with government priorities and the plans for the next phase.

TTC designed a detailed evaluation framework consisting of relevant parameters for investigation and mapped out corresponding sub questions, and stakeholders for interactions. This framework served as the singular tool for gathering of information from secondary and primary sources, carrying out relevant analysis and development of suggestions. During this stage, the illustrative evaluation framework, parameters, and probe areas were also finalised in consultation with the THF team.

2.3. Secondary literature review

A research framework was finalised post the study of project related documents. Through the secondary literature review, the study:

- developed a broad overview of project work in the context of the engagement
- gathered relevant information on existing systems and processes that support the program implementation
- understood socio-cultural, geographical, and organizational factors that influence development of various strategic interventions

The list of documents studied for the secondary literature review are added as part of annexures

2.4. Finalization of evaluation framework, sample, and data collection tools

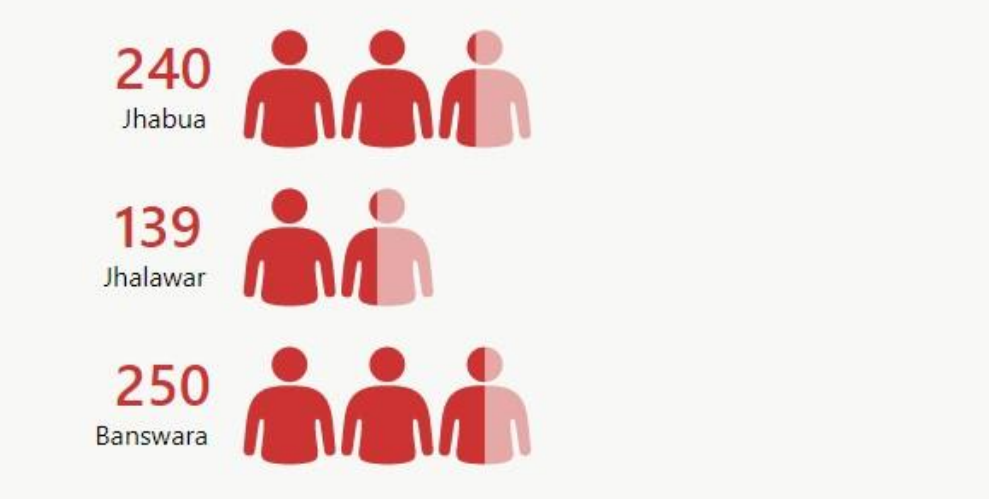
The secondary review of the literature was followed by mapping of stakeholder. The overall impact of the programmes the perspectives of the stakeholders and beneficiaries were captured through in-depth interviews (IDI), Focused Group Discussion (FGD) and HH Survey (HS). Additional probes were added, wherever required, to bring out the depth in response and/or to triangulate the information provided with the existing knowledge. The tools were duly approved by THF prior to deployment.

A total of 630 respondents were included in the study. The sampling distribution was based on the probability proportional to population size sampling. The beneficiary households were selected randomly from the finalised villages. The finalised sample is representative of:

- Beneficiaries pertaining to various interventions
- Small, medium, and large category farmers (as per landholding size)
- Female headed households

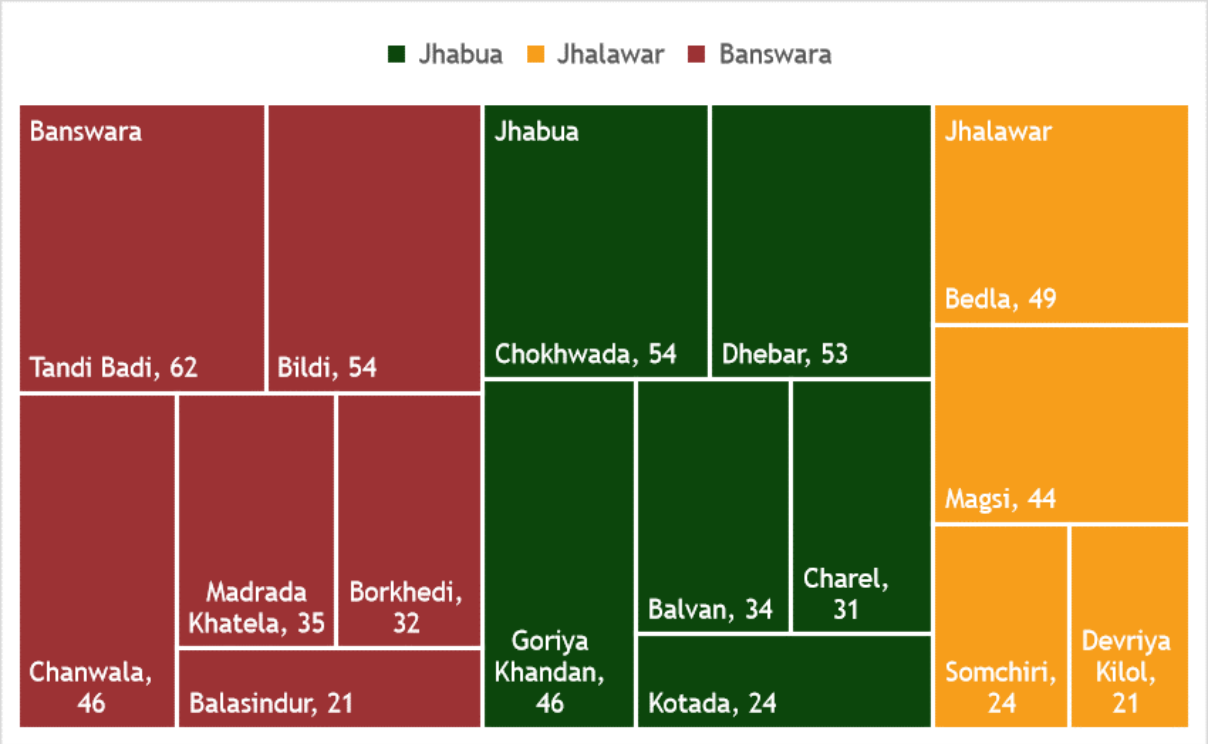
The illustrative below highlights the coverage of the study in 16 villages across the 3 districts.

Figure 8: Sample coverage - District



The sample in 3 districts is distributed across 16 villages – 6 villages from Banswara and Jhabua and 4 villages from Jhalawar were covered under the sample for this study. The table below highlights the number of respondents from each village included under the study.

Figure 9. Sample coverage - Village



The table below mentions the mapping of data collection tools with stakeholders identified for the field plan.

Table 3: Details of Qualitative study

Tool	Respondent Segment	Sample Target	Sample Achieved
Focused Group Discussions 	• Farmer and youth groups • Beneficiary groups including lift irrigation groups, water user groups, etc. • Women groups • Other relevant community institutions such as SHGs, FPOs etc.	16 *(One in each village)*	18 *(Jhabua - 8* *Jhalawar - 4* *Banswara - 6)*
In depth Interview 	• The Hans Foundation • NM Sadguru Water and Development Foundation • Identified champions from beneficiary groups • Irrigation department officials • Sarpanch and opinion leaders • Lift irrigation committee representative	16 *(Out of which 7 - 8 champions for case study development)*	16 *(Out of which 7 champions for case study development)*
Interview on technical aspects of the project 	• Subject Matter Experts (SMEs)/ Project managers	3 *(One per district)*	3 *(One per district)*

2.5. Data collection

An orientation session was conducted for the data collection team before going to field. The field visits to the project areas were conducted across the three districts between 20th September to 3rd October 2021 for quantitative data collection. The visit

for qualitative data collection was conducted between 20th – 24th September 2021. The data collection tools were designed in consultation with NM Sadguru and THF. The proposed sample size was 628 whereas the actual survey was carried out for 630 respondents. The village wise details are shared in Table 3.

The field-based data tools comprised of in-depth interviews, focused-group discussions, and household survey. These were consultative and participatory in nature and involved interactions with relevant stakeholders for each tool. The survey team was formally trained by TTC staff on administration of the survey tool and survey etiquette.

2.6. Analysis and report writing

The information from the field was analysed using qualitative and quantitative methods to assess results and achievements in order to gauge the impact of interventions along with the perceptions of the stakeholder Both primary and secondary data was cross-validated and assessed for veracity, consistency, and completeness. The data generated during the study through interactions and interviews, was analysed to assess the achievements and impact of the programme on the beneficiaries.

A non- linear, exploratory approach was used for the analysis of qualitative data. A descriptive analysis looked for and identified recurring themes, range of responses in categories, patterns, associations, and explanations in information, as well as cluster related themes based on research questions. The assessment team undertook a narrative analysis that re-formulated stories and experiences shared by various stakeholders in different contexts.

The SROI analysis was undertaken basis the available data. The SROI ratio was calculated for how much social, economic, cultural, and environmental value has been created in INR for every INR invested on the project beneficiaries.

2.7. Limitation to the study

Though the evaluation framework was designed in a manner to ensure high quality deliverables with mandatory measures for foreseeable risk mitigation in place, the evaluation was constrained by the following limitations:

- Though the project completed its due course in 2019; the study was undertaken in 2021 which can be assumed to have impeded progress on some of the indicator The sustained impact, in post COVID era is discussed in the report.
- This report sets forth the project team's views based on the completeness and accuracy of the facts stated or provided in the written material shared with TTC and any assumptions that were included; the inaccuracy or completeness of these facts, accordingly, have a material effect on the conclusions.

- While performing the assessment, TTC assumed the genuineness and validity of information and authenticity of the documents. We have not independently verified the correctness or authenticity of the same.
- While TTC has been extremely cautious to ensure the inclusion of all-important areas within the ambit of our review, it might have inadvertently excluded the review of some other equally important issues.
- The insights presented in this evaluation report are based on data/information provided by the various stakeholder to the best of its ability, the evaluation team has tried to ensure and validate the authenticity of data/information submitted by the respondents. However, it would be fair to assume certain errors in data recording.
- The COVID-19 pandemic delayed the assignment due to the country-wide lockdown.

Section 3

Relevance

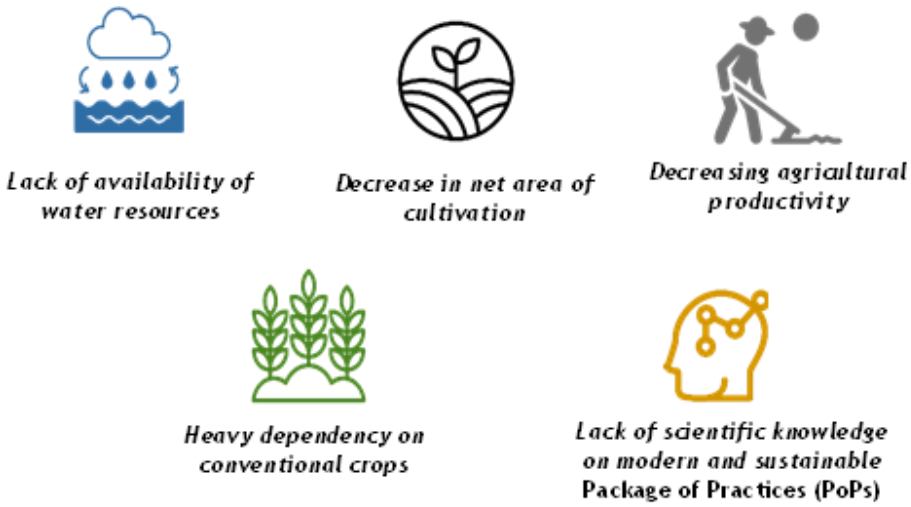
3. Relevance

This section assesses the extent to which the project caters to the needs and aspirations of the target beneficiaries and the priorities of critical stakeholders such as The Hans Foundation and N.M. Sadguru Foundation. It also evaluates the relevance of the project to the context of Rajasthan and Madhya Pradesh as well as its alignment to national and international policies & strategies.

3.1. Relevance to the community

Agriculture is the key source of livelihood of the three project districts and thus has a direct impact on the economic, social, and cultural development of the local communities. The qualitative interactions with the target beneficiaries brought out a set of agriculture related challenges that existed prior to the intervention and were validated by the findings of survey analysis. The key challenges are illustrated below:

Figure 10: Key challenges



The following table indicates how the project has responded to the needs and challenges of the various stakeholders:

Table 4: Relevance to the community

Broad Project Component	Key Interventions	Observations - relevance of the intervention
Development of watershed and water resources along with access to irrigation	• Soil conservation and drainage line treatment • Construction and modernization of check dams • Well deepening and lining • Diesel Engine	• The project has renovated the existing water related infrastructure along with creating new water resources. This has positively impacted the

Broad Project Component	Key Interventions	Observations - relevance of the intervention
	• Gravity drip systems • Installation and renovation of Lift irrigation systems • Rain gauge • Sprayers	water availability of the region which has in turn increased the net irrigated area and net area under cultivation. • The introduction of efficient irrigation techniques has promoted resource conservation and have increased the water productivity in the project villages
Agricultural development	• Agricultural production enhancement for Rabi and Kharif crop • Soil testing • Seed production, grading and marketing • Trainings on PoPs	Quality farm inputs such as improved quality of seeds, vermi compost etc. have reduced the cultivation costs and enhanced the overall yield along with the quality of the produce
Other farm related activities	• Vegetable cultivation • Floriculture • Vermi composting	The introduction of vegetable cultivation and floriculture have led to the diversification of livelihood opportunities for the community and have enabled them to sell their produce to a wider range of market
Training and Capacity building	• Farmers field school • Exposure visits	The trainings and exposure visits facilitated under the project have contributed to the knowledge base of the beneficiaries leading to an overall positive impact on the attitudes and practices of the targeted farmer groups

Broad Project Component	Key Interventions	Observations - relevance of the intervention
IEC campaign	• Wall paintings • Street plays • Regional events	The activity has resulted in a wider spread of awareness about sustainable agricultural practices amongst the community members leading to better retention of the information shared through the project
Ancillary activities in model village of Jhabua	• Fiber Sheet for sunlight in the kitchen • Grocery shop (Kirana store) • Livestock and Poultry • Tent house • Biogas	The interventions carried out in the model village of Jhabua has worked towards developing the general living conditions in the selected village and have supported the beneficiaries in diversifying their income sources

	*During the FGDs, it was observed that there was an evident need to improve the knowledge, attitude, and practices of the community for addressing the changing environmental conditions. Further, there was a necessity of water augmentation in the region to enhance the agricultural productivity of the area. Hence, it can be concluded that the project interventions were relevant to the requirements and aspirations of the target beneficiaries*

3.2. Relevance to the project area

The project covers three districts – Jhabua in Madhya Pradesh and Jhalawar & Banswara in Rajasthan. As per the *Ministry of Statistics and Programme Implementation,* the state economy of Rajasthan is lower than the national average while Madhya Pradesh is only slightly above the national average. Even though Rajasthan is the largest and Madhya Pradesh is the second largest states of India, their combined contribution to India's GDP cumulates to only 9%. Further, both the states have shown a fall in the scores against SDG 8 of *Decent work and Economic Growth*. Thus, the project aimed at enhancement of livelihood opportunities is relevant to the project states and has contributed towards improving the socio-economic conditions of the region.

Project districts:

The project areas of Jhabua, Jhalwar and Banswara are predominantly tribal and are characterized by undulated, low hilly areas interspersed by shallow plains with large numbers of degraded waste lands. The districts have a dry climate except S-W monsoon season and faces extreme summers and average rainfall. Further, the districts lie in highly drought-prone areas of Madhya Pradesh and Rajasthan and are majorly dependent upon groundwater sources for irrigation purposes.

Table 5: A glance at the project Districts

Jhabua	Jhalawar	Banswara
		
• Rural Backwardness rank within state - 11 • Rural Backwardness rank all India - 248 • Vulnerability of agriculture to climate change rank all India - 99	• Rural Backwardness rank within state - 23 • Rural Backwardness rank all India - 233 • Vulnerability of agriculture to climate change rank all India - 153	• Rural Backwardness rank within state - 19 • Rural Backwardness rank all India - 180 • Vulnerability of agriculture to climate change rank all India - 23

Note – Total No. of districts in India – 640; Total no. of districts in Rajasthan – 33; Total no. of districts in Madhya Pradesh - 52

	It is evident that the project districts have several geographical disadvantages. Hence, the local communities are highly vulnerable to the externalities for their livelihoods and are prone to poverty as well as urban migration. The project was found to be highly contextual as it is focused on promoting sustainable agriculture activities, land & water resource development initiatives to improve the local natural resource management

3.3. Alignment with the state and national priorities

National Priorities	Some Key Targets	Project Alignment	Degree of Relevance
Doubling of farmers' income (DFI) by the year 2022	*Govt. of India aims to promote welfare among farmers and eliminate disparity between the income of farmers and non-farmers for which seven drivers have been set for the growth in income. Below are drivers which are best aligned to the project:* ✓ Improvement in crop productivity, ✓ Resource use efficiency or savings in the cost of production ✓ Increase in the cropping intensity ✓ Diversification towards high value crops	✓ The project focuses on increasing agricultural productivity by introducing scientific and sustainable package of practices ✓ The project has developed watershed and water resources along with irrigation systems which improves the water availability and accessibility. This in turn increases the agricultural productivity of the region ✓ By installing efficient techniques of irrigation, the project contributes towards resource efficiency and reduces cost of cultivation ✓ Vegetable cultivation, horticulture, floriculture contributes towards diversification in livelihood opportunities and enhances the net income of farmers	
Pradhan Mantri Krishi Sinchai Yojna	*This scheme by the central government aims to extend the coverage of irrigation and improve*	✓ The project has developed watershed and water resources along with irrigation	

National Priorities	Some Key Targets	Project Alignment	Degree of Relevance
	water use efficiency. The focus of this scheme is 'more crop per drop' in a focused manner. Below are the initiatives of the schemes best aligned with the project. ✓ End-to-end solution on source creation, distribution, management, field application and extension activities.	systems which improves the water availability and accessibility. This in turn increases the agricultural productivity of the region ✓ By installing efficient techniques of irrigation, the project contributes towards resource efficiency and reduces cost of cultivation	
Pradhan Mantri Kisan Samman Nidhi	Under this central scheme all land holding farmers families are entitled to receive income support of Rs. 6000/- in three equal instalments within a year. The funds will be directly transferred to the beneficiaries' bank account	The relevance of this scheme to the project is low as the income support has not been a direct intervention of the project. However, this aspect can be taken into consideration with relevant interventions to provide income support to the beneficiaries as it is an important concern of the community	
Kisan credit facility	This scheme aims at providing adequate and timely credit support from the banking system under a single window with flexible and simplified procedure to the farmers for their cultivation and other needs as indicated below:	The project so far has not focused on ensuring accessible credit facility for the beneficiary. This component can be considered in future as credit support can further enhance agricultural productivity and quality of life by	

National Priorities	Some Key Targets	Project Alignment	Degree of Relevance
	✓ To meet the short-term credit requirements for cultivation of crops ✓ Post-harvest expenses ✓ Produce marketing loan ✓ Consumption requirements of farmer household ✓ Working capital for maintenance of farm assets and activities allied to agriculture ✓ Investment credit requirement for agriculture and allied activities	opening avenues for other sources of livelihood and entrepreneurship.	
Pradhan Mantri Fasal Bima Yojana	*This scheme aims to provide insurance coverage and financial support to the farmers in the event of failure of any of the notified crop because of natural calamities, pests & diseases, stabilise the income of farmer. The initiatives of the schemes best aligned with the project are:* ✓ Ensure their continuance in farming, ✓ Encourage farmers to adopt innovative and modern	✓ The project focuses on increasing agricultural productivity by introducing scientific and sustainable package of practices ✓ The project focuses on providing quality farm inputs such as improved quality of seeds, vermi compost etc. have reduced the cultivation costs and enhance the overall yield along with the quality of the produce ✓ There was limited focus on linkage with	

National Priorities	Some Key Targets	Project Alignment	Degree of Relevance
	agricultural practices	crop insurance schemes.	
Rashtriya Krishi Vikas Yojana (RKVY)	*RKVY scheme was initiated as an umbrella scheme for ensuring holistic development of agriculture and allied sectors by allowing states to choose their own agriculture and allied sector development activities as per the district/state agriculture plan. Under RKVY, States have been provided flexibility and autonomy for selection, planning approval and execution of projects/programs under the scheme as per their need, priorities, and agro-climate requirements.*	The project's model is analogous to RKVY scheme as it aims to address the specific agricultural, livelihood and water resource concerns which are specific and relevant to the needs of the selected district's need, priorities, and agro-climate requirements.	
The project further aids to central government schemes such National Horticulture Mission, Micro Irrigation Scheme, Tribal Area Development (TAD) etc.			

Note: The darker the shade of green, the greater is the relevance of the project to the national and state priorities

State Priorities	Some Key Targets	Project Alignment	Degree of Relevance
Madhya Pradesh and Rajasthan State Development Plans	*The state development plans of Rajasthan and Madhya Pradesh envision to groom agriculture sector as a key employment income generator for the respective States by creating jobs in high value agriculture, value addition, agri-export and attracting investment and technology in agriculture and allied sector.* The project interventions are aligned with the following goals of the state governments: 1. Double farmers' income by increasing productivity and production, improving quality, and introducing primary value addition at farmgate and assured pricing	✓ The development of watershed and water resources along with irrigation systems contributes towards increasing agricultural productivity and production. ✓ Accessibility to better quality farm inputs such as seeds, organic fertilizers etc. assists in improving the quality of the produce	
	2. Promote shift from traditional crops to high value crops and protected agriculture for increasing return from the land	✓ Project activities such as vegetable cultivation, horticulture, floriculture is aligned towards promoting shift from traditional cropping pattern and enhances the net income ✓ The improved availability of water through the project has enabled the	
	3. Focus on increasing area and productivity of fruits and other crops		

		community to grow high value and water intensive crops	
	4. Make use of technology and research for increasing yield, improving seed quality, and enhancing productivity	✓ The project initiatives such as seed production, vermi composting etc. can be qualified as a new (innovative) practice in the project areas ✓ Exposure visits, training on PoPs capacitates the farmers enhanced agriculture productivity through knowledge management and crop diversity	

Note: The darker the shade of grey, the greater is the relevance of the project to the national and state priorities

	*It can be concluded from the analysis above that the project objectives and design are in alignment with state and national priorities and strategies.*

3.4. Alignment with the global priorities

The Sustainable Development Goals (SDGs) comprises of 17 goals and 169 targets and strive towards inclusive and holistic growth of one and all. The project aligns with multiple SDGs, in particular through No Poverty, Zero Hunger and Clean Water & Sanitation. Below is a list of SDGs with the strongest alignment to the objectives, vision, and mission of the program.

SDGs	Some Key Targets	Project Alignment	Degree of Relevance
SDG 1: No Poverty	By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related	✓ Enhancement in net income of farmers by diversifying their sources of income	

SDGs	Some Key Targets	Project Alignment	Degree of Relevance
	extreme events and other economic, social, and environmental shocks and disasters	✓ Capacitating farmer communities for sustainable and climate resilient agriculture	
SDG 2: Zero Hunger 	By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality	✓ Capacitating farmer communities for sustainable and climate resilient agriculture ✓ Training on scientific package of practices to boost agriculture productivity with reduced cost of cultivation	
	By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists, and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment	✓ The project beneficiaries are tribals, small scale farmers and women ✓ There was a limited focus on developing value chains for agri. commodities and marketing	
SDG 6: Clean water and Sanitation 	By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity	✓ Building and repairing water harvesting infrastructure ✓ Introducing water efficient irrigation techniques	

SDGs	Some Key Targets	Project Alignment	Degree of Relevance
		✓ Enhanced the net area under irrigation	

Note: The darker the shade of green, the greater is the relevance of the project to the SDGs.

	*The project aims to enhance the food and nutritional security of the project coverage area along with improving access to water for irrigation and increasing agricultural productivity through knowledge management & crop diversity. Hence, the project is contributing towards the SDGs and is relevant in the global context. It can also be safely concluded that the project is aiding the Government of India in its global commitment towards SDGs.*

Section 4

Effectiveness

4. Effectiveness

This section assesses the extent to which the project has achieved its objectives and output targets. It also provides insight into each project intervention and includes observations on the effectiveness with which each activity has achieved its intended outputs.

4.1. Project Interventions

Given the varied natural resources available, the need for resource management and sustainability was now deemed important at multiple levels- individual farmers, farmer associations as well as households. These community-based interventions therefore, covered a wide range of activities including:

4.1.1 Water resources development

To improve the availability of surface and ground water levels in the drought prone areas of Jhabua, Banswara and Jhalawar, the project focused on the development and strengthening of water infrastructure in the region. The sub activities included - installation and renovation of small and medium earthen tanks, check dams, lift irrigation systems and well deepening activities. The location wise activity outputs are detailed below:

Table 6: Target Vs Achieved - Development of water resources (in absolute values)

Location	*Jhabua*		*Banswara*		*Jhalawar*		*Overall Outputs*	
Sub activity	Target (unit)	Achieved (unit)	Target (unit)	Achieved (unit)	Target (unit)	Achieved (unit)	Total Target	Total Achieved
Soil Conservation & Drainage line Treatment	3	3	0	0	0	0	3	3
Construction of check dams	57	59	3	2	2	0	62	61
Renovation of Govt. check dams	1	2	4	5	0	0	5	7
Construction of earth tanks	0	0	0	0	2	2	2	2

Installation of lift Irrigation	0	0	3	2	2	2	5	4
Renovation of lift irrigation	0	0	4	3	0	0	4	3
Well deepening	83	85	45	35	25	25	153	145
Well lining	51	51	0	0	0	0	51	51
Masonry outlet facilitating the surface run off	30	31	0	0	0	0	30	31

Source – THF consolidated report for Jhabua, Jhalawar and Banswara

Figure 11: Well deepening and lining

Figure 12: Check dam

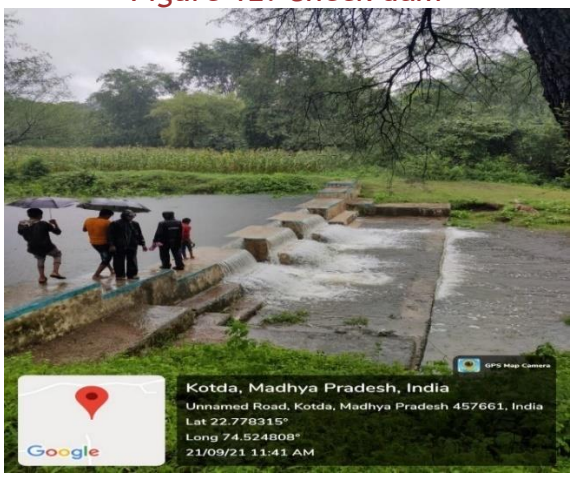
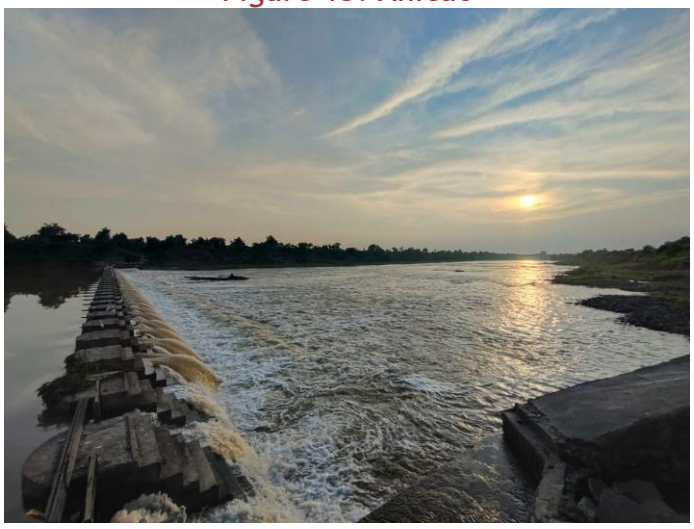


Figure 13: Anicut



Vikram Singh
Well deepening beneficiary

Vikram Singh had a raw well that was about 15 feet deep and would manage only 1-2 irrigation cycles in Rabi season. In 2017-18, he received project assistance of about INR 23,600 for well deepening and lining. His well is now 30 feet deep and due to the lining of the well the soil does not fall inside. This has helped him irrigate his fields better and his agricultural harvest has seen a substantial increase. He is now able to earn INR 15000 from tomato cultivation and INR 25,600 from selling seedlings in the nursery. His well is now shared by other farmers as well mostly for wheat and vegetable cultivation.

Key observations:

- *Contextually, number of project villages in Banswara and Jhalawar have Lift Irrigation (LI) schemes since early 2000's – Jhabua is characterized by undulating land. The need for water augmentation structures in Banswara and Jhalawar was thus relatively lower than in Jhabua*
- *In Jhabua, Soil Moisture Conservation activities (including bunding, vermicomposting etc.) were at the forefront. The land under cropping has increased during the project period*
- *Other donors sponsoring NMS (ABF, Coca-Cola) are present in the same project villages*
- *The qualitative study confirmed that the project is designed as per the needs of the local geography and is aligned with the varied topography of the region*
- *There is an unmet and incremental need for water in the community which may be due to an increase in aspirations and lack of awareness on water management concepts such as water budgeting*

- *No formal community level institutions were developed under this project apart from the new LI Committees; older LI committees have been federated in Banswara. However, awareness about federation objectives, byelaws, etc. was observed to be low amongst the farmers*
- *Escalation and conflict prevention/resolution mechanisms were not prioritized under the project*
- *No formal elections in older LI groups since last 10 years and norms for governing LI(s) not established*

4.1.2 Access to irrigation

The issue of water scarcity for the purpose of irrigation was identified as one of the key challenges of the project areas. Hence, the project aimed at enhancing the community's accessibility to cost effective and efficient irrigation techniques by providing and installing diesel engines for group irrigation, gravity drip irrigation systems, and sprayer pumps. The location wise activity outputs are detailed below:

Table 7: Target Vs Achieved - Access to irrigation (in absolute values)

Location	*Jhabua*		*Banswara*		*Jhalawar*		*Overall Outputs*	
Sub activity	Target (unit)	Achieved (unit)	Target (unit)	Achieved (unit)	Target (unit)	Achieved (unit)	Total Target	Total Achieved
Diesel engine for group irrigation (No.)	90	88	45	44	32	32	167	164
Gravity drip system with water tank and stand	0	0	30	35	40	40	70	75
Sprayers	0	0	75	75	32	32	107	107
Rain gauge	0	0	9	9	0	0	9	9

Source - THF consolidated report for Jhabua, Jhalawar and Banswara

Figure 14:Drip irrigation

Figure 15: Lift irrigation

Key observations:

- *Owing to the developed water related infrastructure during the early 2000s and within this project, the access to water has improved. This has resulted in community being able to grow a second crop which was limited to only one*
- *Irrigation practices were observed to be largely conventional and conservational irrigation techniques like gravity-based drip, ridge and furrow plantation were adopted by limited number of beneficiaries. However, as per the discussion on field, the community has shown interest to further adopt conservational irrigation techniques*
- *This has led to a cascading effect where other amenities have followed, and the community has better access to improved livelihood opportunities and decreased migration*

4.1.3 Agriculture crop development

Agriculture forms the economical backbone of three project districts and provides livelihood to majority of the population. During the baseline study, the project team realized the need to modify the conventional agriculture practices to enhance the agricultural productivity. Thus, under agriculture crop development, scientific and sustainable Package of Practices (PoPs) were promoted amongst the community. This was achieved through production, packaging and grading of seeds, farm demonstrations and soil testing.

The location wise activity outputs are detailed below:

Table 8: Target Vs Achieved - Agriculture crop development (in absolute values)

Location	*Jhabua*		*Banswara*		*Jhalawar*		*Overall Outputs*	
Sub activity	Target (unit)	Achieved (unit)	Target (unit)	Total Target	Total Achieved	Achieved (unit)	Total Target	Total Achieved
Field crop enhancement (Rabi & Kharif) in acres	4,200	4,200	12,000	12,238	7,200	7,000	23,400	23,438
Seed production (Rabi & Kharif) in acres	0	0	1,200	1,200	200	300	1,400	1,500
Soil testing	900	0	0	0	0	0	900	0
Seed Grading Packaging, marketing	0	0	9,375	9,411	3,000	1,030	12,375	10,441
Agriculture POP training (Rabi & Kharif)	0	0	402	369	214	231	616	600

Source – THF consolidated report for Jhabua, Jhalawar and Banswara

Mr. Shyam Lal
Champion Farmer


Shyam Lal from Bardia Birji, Dag block, Jhalawar joined the agricultural productivity and livelihood upgradation project in the second consecutive year of the project. Prior to joining the project, Shyam Lal would migrate for a few months to Gujarat for work opportunities. After getting engaged in the project, he received training on vegetable cultivation. The training involved sessions on planting vegetable through scientific methods and how to prepare the fields by plowing the land. He was taught how to use chemicals and organic fertilizers in prescribed quantity and was informed about out-of-season vegetable cultivation.

He received the training through the agricultural expert at NM Sadguru. He learned in the training sessions about the use of low tunnel method since the germination capacity of vegetable seeds are very less during the winter season. Low tunnel method is cost effective as well. For his first batch, he used about 5,000 square feet plot for cultivating Shriram Jhilmil variety of Okra. He used the low tunnel method for keeping the soil warm and providing a micro-climate for Okra cultivation.

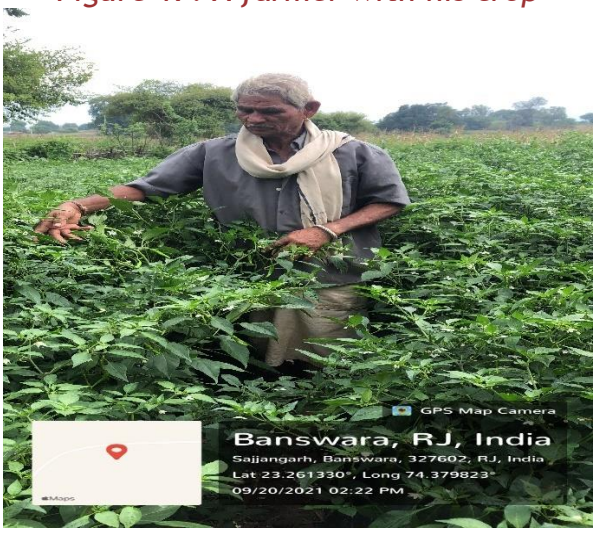
In three months, he had a harvest of 342 kgs of Okra in the month of March itself. The produce was sold in Chaumalah vegetable market at a price of INR 55-65 per kg. He was able to earn around INR 2,00,000 from his first batch of vegetable cultivation.

Maanjhi Dala, Beneficiary, Balasindur, Banswara

"Last year I made INR 1,45,800 from seed cultivation for maize. I am getting a pucca house as my daughter is getting married next year"

Figure 16: Cultivated field

Figure 17: A farmer with his crop



Key observations:

- *The community recalled availability of better-quality seeds and practices related to seed treatment. Agricultural yield has also reportedly improved. However, the community lacks knowledge on how to access better quality seeds post the project intervention*
- *Vermicomposting has been adopted by a smaller section of the beneficiaries; particularly those with the permanent compost structures*
- *It was observed that the project did not facilitate any aggregation of the produce in markets or establish forward linkages with secondary markets*
- *It was noted that there was no convergence established with the Krishi Sevaks for the leveraging further support and resources*
- *The engagement with the local youth and women groups were observed to be limited, therefore the project did not subscribe to social inclusivity. The FGDs revealed that the youth is not interested in agriculture due to limited resources and income*

4.1.4 Other farm related activities

Vegetable cultivation was promoted to diversify the livelihood opportunities and to replace the existing cropping patterns of the targeted beneficiaries. Vegetable cultivation provides good source of income in a short duration with minimum inputs from the farmers. Thus, the beneficiaries were supported with trellis systems, plant nurseries, open field vegetable cultivation and kitchen gardens under the activity.

The location wise activity outputs are detailed below:

Table 9: Target Vs Achieved - Other farm related activities (in absolute values)

Location	Jhabua		Banswara		Jhalawar		Overall Outputs	
Sub activity	Target (unit)	Achieved (unit)	Target (unit)	Achieved (unit)	Target (unit)	Achieved (unit)	Total Target	Total Achieved
Vegetable cultivation-on trellis	157	157	450	440	300	277	907	874
Vegetable cultivation - open field	347	347	4500	4720	2500	2254	7347	7321
Floriculture	39	46	0	0	0	0	39	46
Training on PoP for vegetable cultivation	0	0	144	143	80	75	224	218
Vermi compost	156	204	0	0	20	70	176	274
Kitchen gardening with improved seeds	0	0	600	615	300	340	900	955
Plant nursery raising	0	0	33	33	25	23	58	56

Source - THF consolidated report for Jhabua, Jhalawar and Banswara

Sarita, Beneficiary, Magarda Khatela, Banswara

"I learned about floriculture from NM Sadguru. I have been growing roses and marigold for the last three years. We are shifting from a kuccha house to a pucca house, the construction is on-going. I earned big margins of profit from floriculture and that is money I have been using for this construction."

Figure 18:Hortculture plot

Figure 19: Floriculture plot

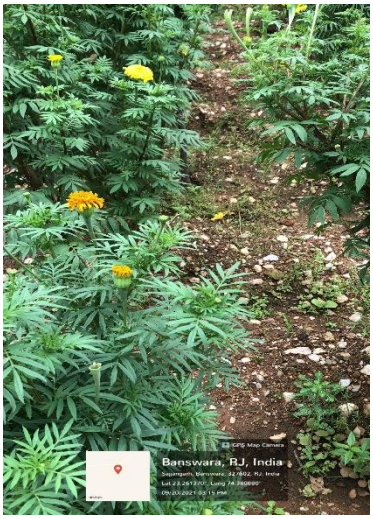


Figure 20:Vegetable cultivation

Figure 21:Plantation

Key observations:

- *The project interventions such as horticulture, vegetable cultivation, floriculture was well received by the beneficiaries across all three locations. The FGDs revealed that these practices were not a part of the conventional agriculture practices of the region and its introduction can be completely attributed to the project.*
- *The intervention has been effective in shifting focus from a monoculture approach that focused only on staple crops & food grains and has increased the income generating opportunity for the farmers. The farmers adopted two tier farming system of ginger, turmeric, smooth gourd, pointed gourd,*

cucumber etc., along with open field cultivation of Tomato, brinjal, chili, cauliflower etc.

- *The farmers further informed that the project enabled them to minimize cost of agriculture input by establishing plant nurseries, vermi composting structures and enabled them to access better quality seedlings for their kitchen gardens. However, it was observed that there is a potential to further scale up these activities in the region as many of the farmers are not able to access good quality seeds at minimum prices post the project.*
- *Beneficiary selection mechanisms for activities such as floriculture, vegetable cultivation, biogas etc. is not standardized and documented at the project level. Further, the selection of beneficiaries was seemingly random.*

4.1.5 Capacity Building

Govind Singh, Sarpanch, Bedla, Jhalawar

"I have worked with NM Sadguru for 18 years and everything I know, from community mobilization to communication with beneficiaries I have learned from them. These skills are helping me today as I am the people's representative"

Capacity building trainings were instrumental for long term sustainable changes in the practices of the targeted beneficiaries. It also helped in enhancing the existing understanding and knowledge of the farmers which has a cascading impact on the entire village community and younger generations. The exposure visits were also planned to expediate the replication of programs and cross learning. Hence, numerous trainings and capacity building exercises were conducted with the project beneficiaries on package of practices of crops, soil moisture conservation and watershed management. The location wise activity outputs are detailed below:

Table 10: Target Vs Achieved - Capacity building (in absolute values)

Location	*Jhabua*		*Banswara*		*Jhalawar*		*Overall Outputs*	
Sub activity	Target (unit)	Achieved (unit)	Target (unit)	Achieved (unit)	Target (unit)	Achieved (unit)	Total Target	Total Achieved
Farmers technical training	225	328	84	92	16	12	325	432

Exposure visits	7	5	3	3	2	2	12	10
Farmers field schools	420	420	180	236	24	24	624	680

Source – THF consolidated report for Jhabua, Jhalawar and Banswara

Vijay Singh
Tomato vegetation farmer

Vijay Singh has a total of 6 bigah land passed down to him by his forefathers Their usual cropping patterns include growing soya-bean and maize in Kharif and mustard and gram in Rabi season. The 6 bigah land was not enough to provide their family with a household income of INR 30000-40000 every month. With seasonal farming, it was difficult to manage monthly income. He would often travel outside of his village for earn wages.

He came across the training sessions on tomato cultivation through a village meeting. He enrolled himself for the sessions. By December, he planted tomato using indigenous methods he used on field. He was able to harvest 2-3 crates of tomatoes in a day which were sold in Chaumalah vegetable market at a price of INR 8-25 per kilogram. He sold 150 carats of tomatoes the first season. He made an income of about INR 16500 a month from the first batch of tomato cultivation.

Vijay now cultivates vegetables along with seasonal crops. He was given a drip irrigation system as he struggled with availability of water in summer His income from the 6 bigah land is more than INR 20000 every month at least from vegetable cultivation alone. He has now ventured into horticulture as he was taken on an exposure visit where he learned about different horticulture practices for apple,

guava and plum cultivation. He further plans on using organic fertilizers like vermi-compost for his vegetable cultivation.

Figure 22:FGDs with Beneficiary groups

Figure 23: FGDs with Farmer groups

Key observations:

The farmers showed good recall value for the trainings conducted and shared detailed process followed during a crop cycle. The discussions revealed there is an evident change in PoPs before and after the project interventions and the beneficiaries have managed to successfully integrate some of sustainable practices. However, it is observed that these practices are only limited to certain beneficiaries who directly participated in exposure visits and trainings and could not sustain amongst the wider community.

4.1.6 IEC Campaign

Activities such as awareness meeting, wall paintings, street plays were organized to spread mass awareness in the project villages and to mobilize the local communities. The location wise activity outputs are detailed below:

Table 11: Target Vs Achieved - IEC campaign (in absolute values)

Location	*Jhabua*		*Banswara*		*Jhalawar*		*Overall Outputs*	
Sub activity	Target (unit)	Achieved (unit)	Target (unit)	Achieved (unit)	Target (unit)	Achieved (unit)	Total Target	Total Achieved

Village Level awareness meeting	300	310	30	30	32	38	362	378
Development and distribution of IEC material	75	75	30	30	32	32	137	137
Street plays	150	125	50	58	64	48	264	247
Wall paintings	50	50	50	51	32	32	132	133
Regional event	0	0	3	3	2	2	5	5

Source – THF consolidated report for Jhabua, Jhalawar and Banswara

Figure 24: Wall paintings

Figure 25: IEC material

Key observations:

The beneficiaries recollected the IEC activities under the project. Further, the wall paintings were observed in the villages. However, no handouts or field manuals on POP were found to be referred by the community.

Section 5

Efficiency

5. Project Efficiency

This section evaluates the project efficiency through the analysis of the following aspects:

- *Project budget*
- *Project management*
- *Project timeline*

5.1. Budget Analysis

- *Budget overview*

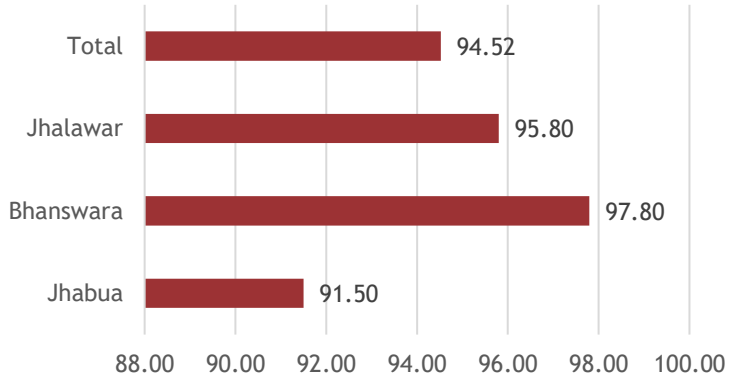
The table below indicates the total budget sanctioned for the project in all three districts:

Table 12: Total budget[10]

Location	Jhabua	Banswara	Jhalawar
Budget for 3 years (INR)	13.05 Cr	20.92 Cr	12.16 Cr

The illustrative below highlights the total expenditure of the project from the funds received from THF:

Figure 26: % Expenditure from THF grant



The total expenditure from the funds received from THF is given below:

Table 13: Funds received from THF

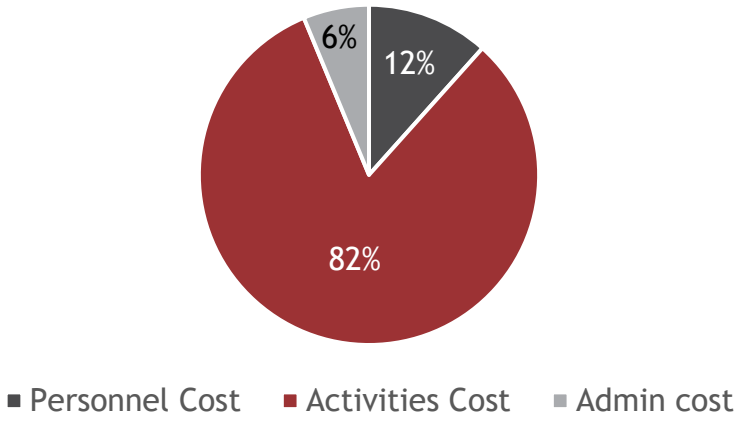
Receipt from TFH				
Location	Budgeted (INR)	Actual receipts (INR)	Utilized (INR)	Utilized (%)
Jhabua	6.68 Cr	6.68 Cr*	6.11 Cr	91.50
Banswara	5.62 Cr	5.14 Cr	5.03 Cr	97.80
Jhalawar	2.86 Cr	2.60 Cr	2.49 Cr	95.80
Overall	15.17 Cr	14.43 Cr	13.64 Cr	94.52

[10] Includes targeted convergences. THF's contribution is discussed below.

**The Utilization Certificate mentions the actual receipt as 6,01,98,538 Cr (INR), however we are assuming that the entire amount would have been paid.*

The budget has three key components – direct project cost, personnel cost (salary) and administration cost. Administration cost comprises of capital expenditure, running cost, field visit and indirect cost. The illustrative below highlights the expenditure on key components from the budget received from THF:

Figure 27: Budget Components

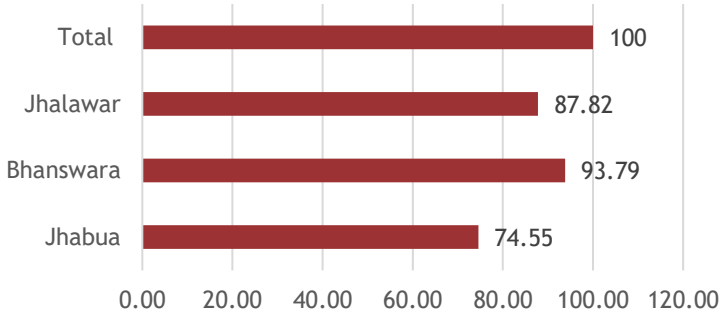


The major investment in all the three districts has been for agricultural development, water resource development and vegetable cultivation. These activities were initiated for enhancing livelihood through land, water resources and agriculture.

One of the key features of the project was the convergence with other donors in addition to funding provided by The Hans Foundation for reaching the shared goal of livelihood enhancement.

The illustrative below highlights the total expenditure of the project from the funds received from other donors:

Figure 28: % Expenditure from donor funds



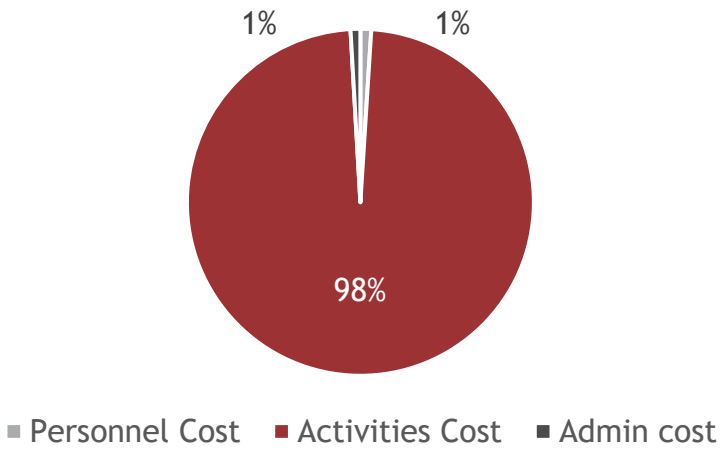
The total expenditure from the funds received from other donors is given below:

Table 14: Funds received from other donors

Other Donors				
Location	Budgeted (INR)	Actual receipts (INR)	Utilized (INR)	Utilized (%)
Jhabua	6.36 Cr	4.74 Cr	4.74 Cr	100.00
Banswara	15.30 Cr	14.35 Cr	14.35 Cr	100.00
Jhalawar	9.30 Cr	8.16 Cr	8.16 Cr	100.00
Overall	30.97 Cr	27.26 Cr	27.26 Cr	100

The illustrative below highlights the expenditure on key components from the budget received from the donor:

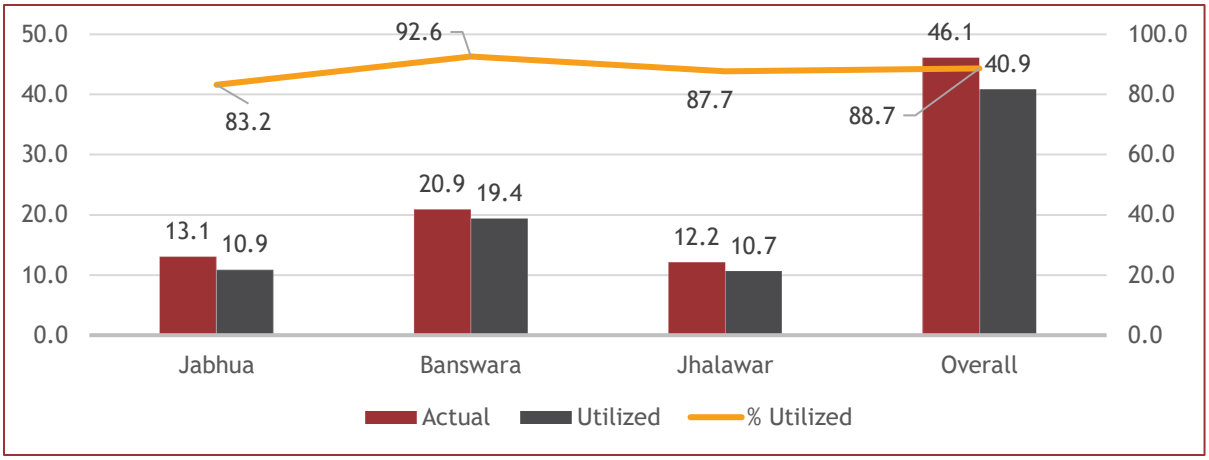
Figure 29: Expenditure



- *Utilization*

The funds allocated for each project is given below in the table and it is observed that the budget was underutilized in all three districts. The below table and graph illustrate location wise utilization of the budget:

Table 15: Fund Utilization



In Jhabua the total spending from the budget was 83%, in Banswara it was 93% and in Jhalawar it was 88%. The UCs referred during the assessment includes rationale for variances in line items. The detailed explanations are included as annexure to the report.

5.2. Project Management

The efficiency of the project is fundamentally linked to an organization's structure, its capabilities and the adequacy of systems, policies, and procedures for project lifecycle management. As a part of the impact assessment, the team undertook a review of the current management arrangement systems and the processes that have been put in place. This section provides an analysis of the same.

- *Planning process and monitoring*

Jhabua

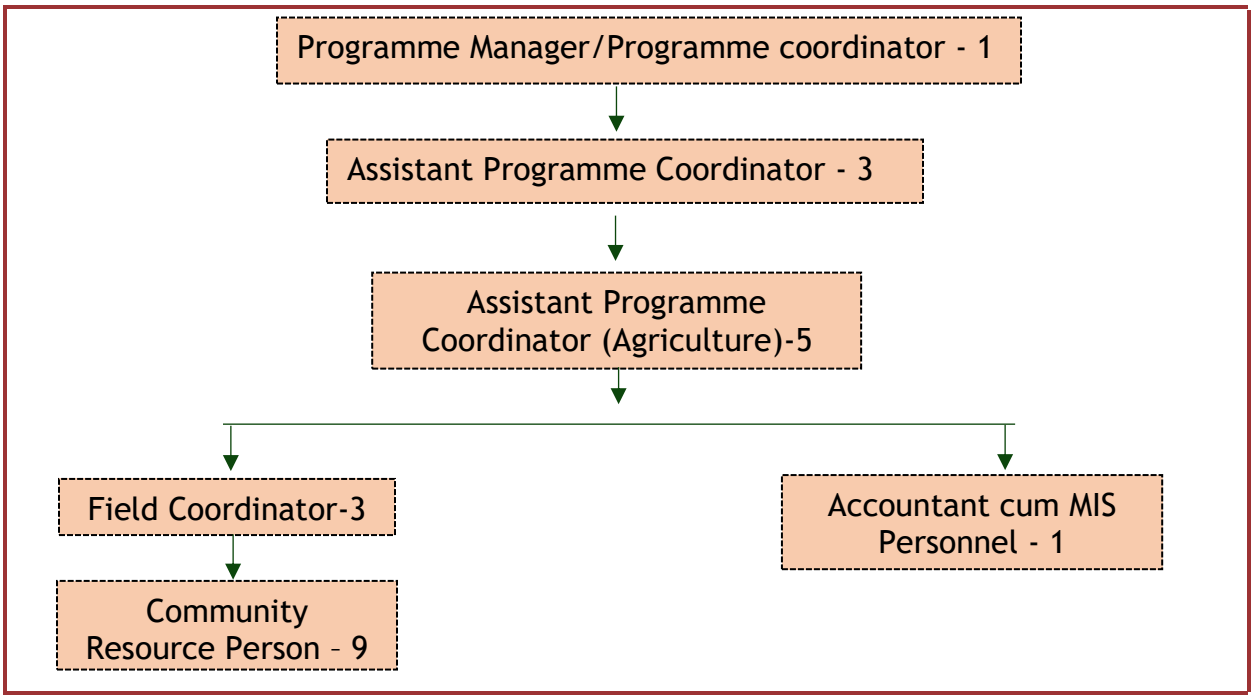
A pilot project was initiated in 2015 for one year to validate the feasibility of the project in the district which to analyse the suitability of the project according to the geography. 25 villages were selected based on the pilot project which were further divided into three clusters- Thandla, Meghnagar and Jhabua. The village selection criteria were-

- ✓ The need for creating water resources
- ✓ Need for improvement in the package of practices
- ✓ Villages that need to be included for improving agricultural productivity

Post the selection of the villages, the interventions were designed based on the specific needs of the beneficiaries across the selected villages.

The project team structure was designed as per the project coverage and activities proposed for the location.

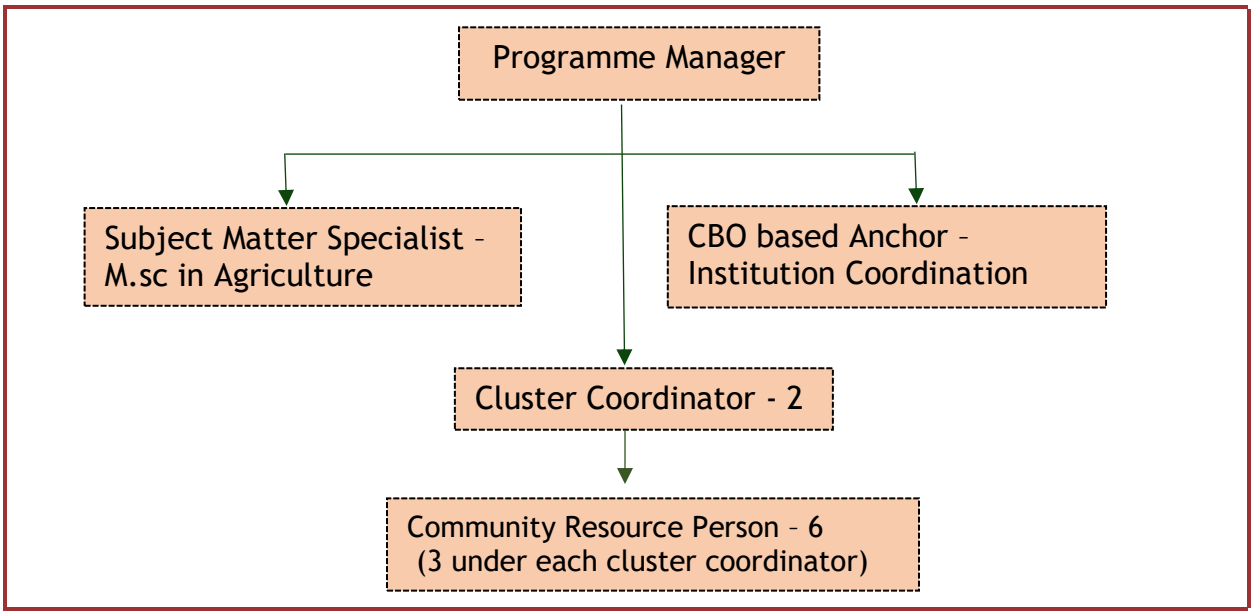
Figure 30: Organogram of the project team: Jhabua



Banswara

Lift Irrigation activities in Banswara have been ongoing since early 2000s. The villages where these interventions had already taken place were prioritized for this village. The project also included certain villages where water related interventions had not taken place prior to the project. In total, the project covered 23 villages across 3 clusters. The management structure was designed as per the project coverage and activities proposed for the location.

Figure 31: Organogram of the project team: Banswara



- *Capacity building for the project team*

The CRPs and cluster coordinators were trained on monthly basis on agricultural crop rotation and package of practices. They were also capacitated on effective monitoring processes. These trainings were conducted by thematic experts from NM Sadguru.

In case any information was needed by CRPs, groups were made for information dissemination, and it could be accessed at any point of time. At least 10-15 trainings at least were done for CRPs in a year.

In Jhabua, a total of 6 exposure visits were organized on various themes and to agricultural institutes and allied sectors. One of the institutes visited was Jain Irrigation, Jalgaon (Maharashtra). Information regarding micro irrigation and post-harvest technology were provided there.

In Banswara, a total of 30 trainings for the coordinators were conducted. The trainings covered all relevant issues relating to seed collection from seed producing farmers & distribution among other farmers. During this training, a session on organic farming was also organized. Training for all the field functionaries was a regular activity, these were conducted in house mainly on crop specific subjects.

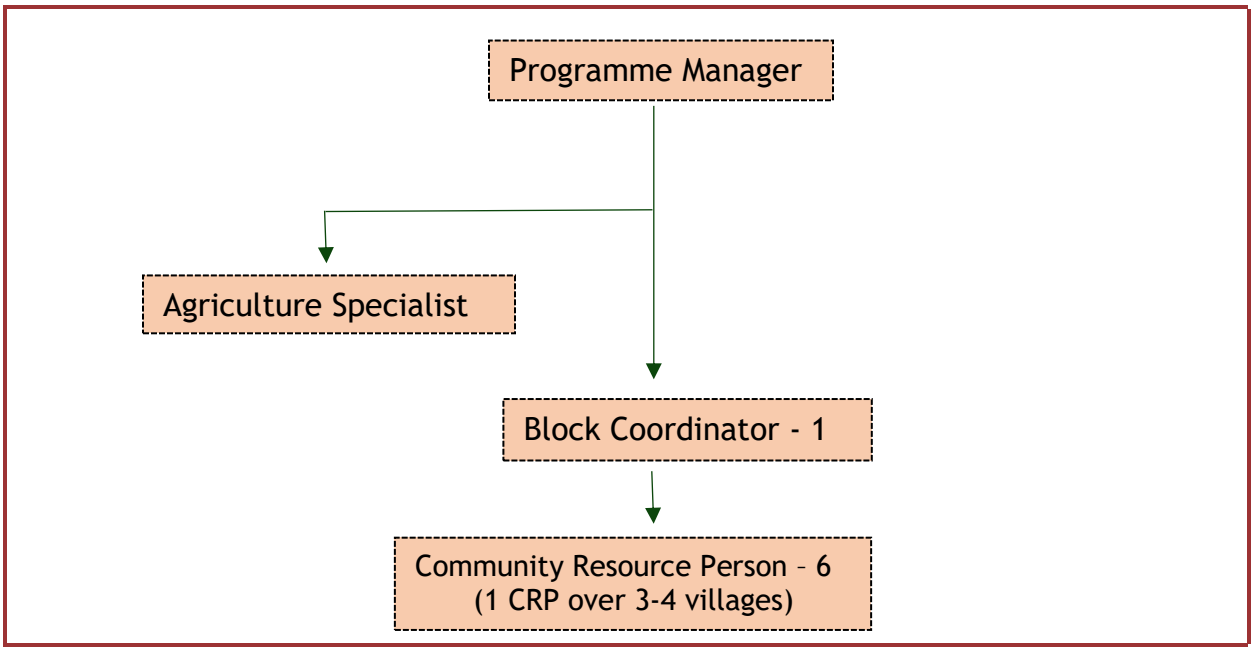
- *Timeline for the implementation of the project – Jhabua and Banswara*

About 80% activities were implemented as per the expected timeline. The challenges that impacted the proposed timeline were getting permissions for water-related resource development, delay from government, etc.

Jhalawar

The project timeline for Jhalawar was 2 years, initiated in 2017. The project was implemented in 16 villages with 2,400 beneficiaries. The project team structure was reportedly designed as per the project coverage and activities proposed for the location:

Figure 32: Organogram of the project team: Jhalawar



- *Capacity building for the project team*

At least 16 trainings were conducted on relevant issues pertaining to seed collection from seed producing farmers & distribution among other farmers for the project coordinators including the committee members of Lift Irrigation Cooperatives as well. During this training, a session on organic farming and package of practices were also organized. These trainings were conducted periodically on various aspects as per the requirement of ongoing cropping season.

- *Timeline for the implementation of the project*

All activities were planned on annual (Year 1 & Year 2) basis as well as for every quarter. The implementation was done based on this timeline. The budget was sanctioned by THF annually. There was no delay in the implementation of these activities. The only delay was for activities where convergence with government was planned due to delays in sorting permission.

5.3.Monitoring Mechanism

It may be noted that review of MIS data & monitoring reports was not under the scope of this assessment. The monitoring mechanism for the project was understood in consultation with the project implementation team of THF. The monitoring mechanism as reported by NMS is indicated below:

Figure 33: Monitoring Mechanism-Jhabua and Banswara

Key observations:

- *The project was able to attain the objectives within the stipulated resources (time, capital, and human).*
- *The organogram and SOPs varied in the respective project locations. Cross learning mechanisms among the three districts were not evident. The capacity building for the project team also varied.*
- *The delays in timeline impacted the agriculture and crop calendar.*

Section 6

Socio-economic profile

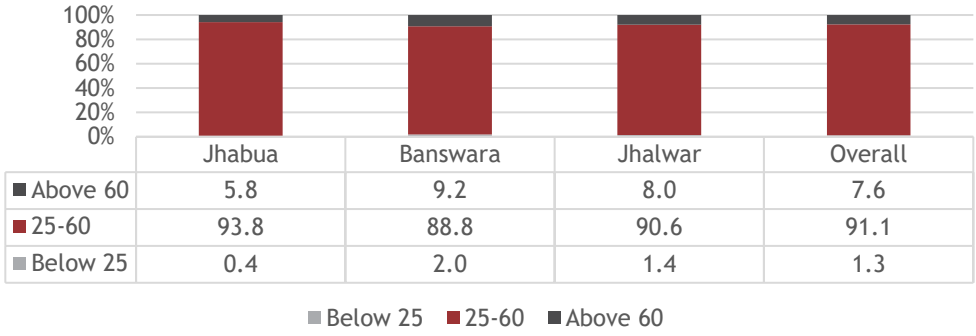
6. Socio-demographic profile

The study reached out to the households with beneficiaries of interventions. This section highlights the socio-economic profile of the beneficiaries belonging to this target group.

Age

Nearly 91.1% of the study participants were between the age group 25-60 years Further, nearly 7.6% of the respondents belong to the group of 60 years and above. This pattern was common across all the three districts. It was observed that housewives participated in the livelihood generation activities with their male counterparts, especially in the tribal areas.

Figure 34: Age group of the participants (in %)

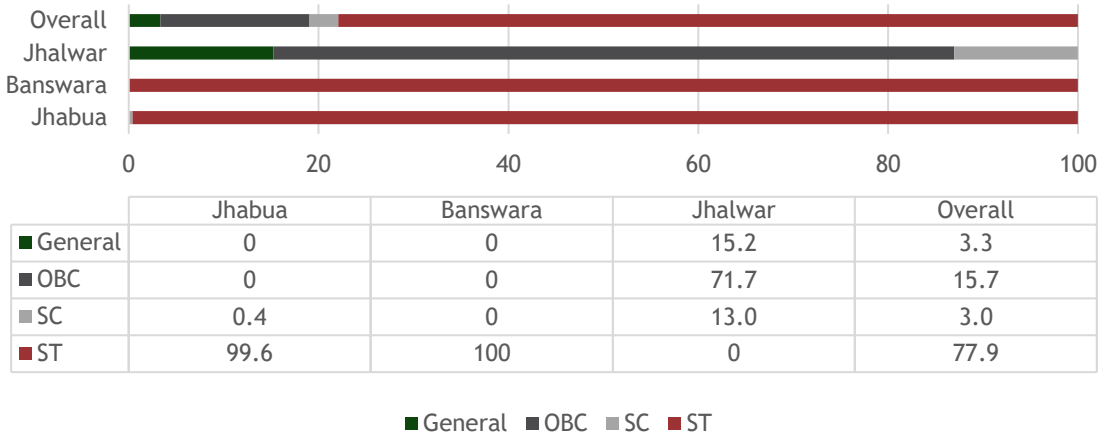


	Jhabua	Banswara	Jhalwar	Overall
Above 60	5.8	9.2	8.0	7.6
25-60	93.8	88.8	90.6	91.1
Below 25	0.4	2.0	1.4	1.3

Social category

The project has impacted marginal groups, majorly the scheduled tribes which constitute about 77.9% of the sample size. Jhabua and Banswara being predominantly tribal areas, had almost 100 % tribal beneficiaries. Other backward castes (OBC) make up 71.7% of the population in Jhalawar. The detailed distribution of the social category across the three districts is illustrated below:

Figure 35: Category of the participants (in %)



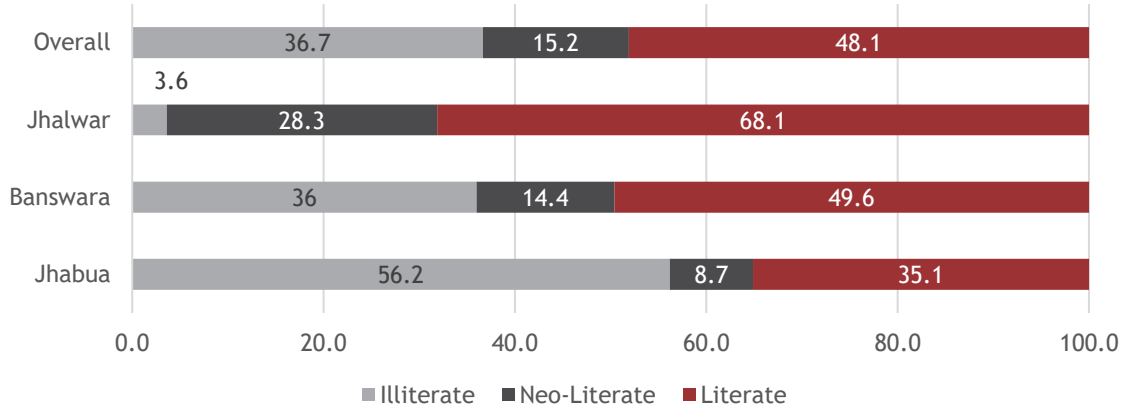
	Jhabua	Banswara	Jhalwar	Overall
General	0	0	15.2	3.3
OBC	0	0	71.7	15.7
SC	0.4	0	13.0	3.0
ST	99.6	100	0	77.9

Education

Across the sample population, 48.1% of the respondents were literate whereas 36.7% of the respondents were illiterate. As seen in the figure, the district of Jhalawar in Rajasthan has the highest literacy rate of 68.1% whereas Jhabua and Banswara have comparatively low literacy rates of 35.1% and 48.6% respectively. This underlines the importance of awareness increasing sessions within the target beneficiary group. It was evident during the interactions, that the beneficiaries had limited prior exposure towards similar trainings. The respondents attributed this project as an opportunity to improve their standard of living as well as awareness levels.

The figure given below illustrates the education level of the respondents:

Figure 36: Education status (in %)



Family size

The local tribes prefer to stay in smaller families with an average family size of 6.3. Male members make up for the 51% of the family unit while females comprise 49%. Family units consist of 51.7% adults (18-59 years) and 41.3% young members (0-18 years). Similar patterns are seen across the three districts.

Jhabua	Banswara	Jhalawar
• The average family size is 6 members with largest family size of 7 members • 48.7% female members and 51.3% males in family unit. • Family units comprise of 49.1% in the age	• The average family size is 6 members • Family units comprise of 48.8% female members and 51.2% male members • Nearly 50.7% family members are in the age group 18-59 years,	• The average family size is 6 members • 50% family members are males, while the other 50% are females. • Family unit constitute 58.3% adult members (in the age group 18-59 years) and 32.7% young

Jhabua	Banswara	Jhalawar
group 18-59 years while 46.2% members are in the age group 0-18 years	while young members (age 0-18 years) attribute to 41.2%	members (age group 0-18 years).

The figures given below illustrate the gender and age diversification in a family across the three districts:

Most of the respondents belong to the age group of 31-40 (37.9%) and 41-60 (44%), the district wise diversification is illustrated below (Figure 36). It is important to note that these respondents would already have an established package of practices and it becomes even more important that training on evolving agricultural practices is taken into consideration while developing the project design. It is safe to assume that the digital literacy is low for the population in the age group of 31-60 and as most of the government schemes can be availed through various online portals easily, a strong emphasis should be given to improve the government linkages between the two digitally.

Figure 37: Gender distribution (in %)

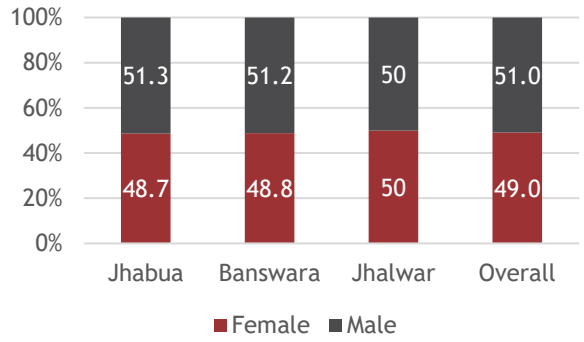


Figure 38: Average Family Size

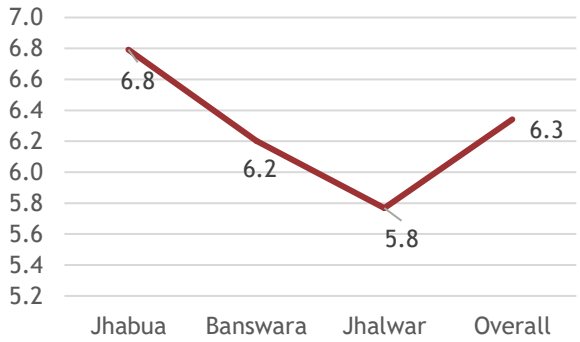
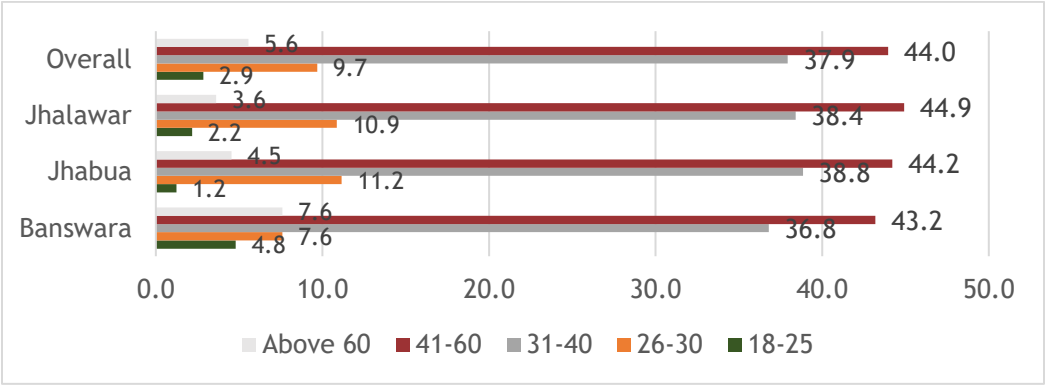


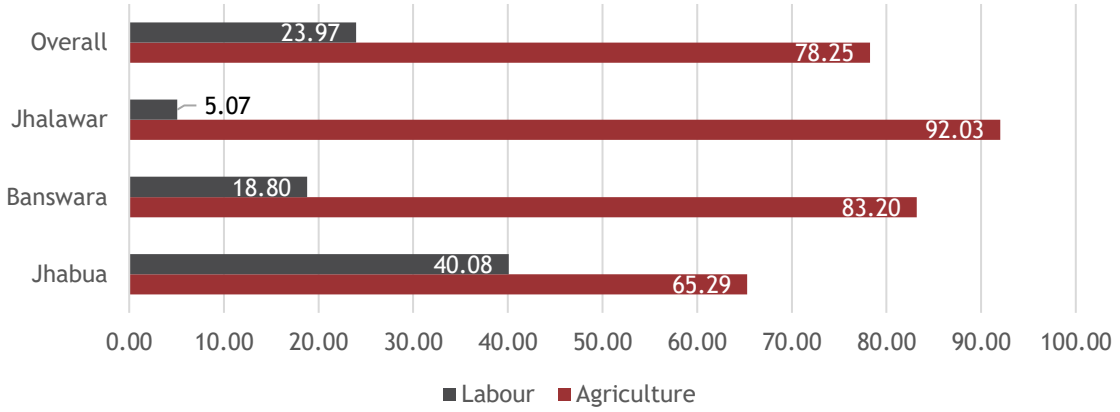
Figure 39: Age distribution (in %)



Primary source of income for the HH

Agriculture and labour were attributed as the top-2 income sources by the beneficiaries. Agriculture is the principal source of income for over 78.25% of respondents across the project locations (92.03% in Jhalawar, 83.20% in Banswara, and 65.29% in Jhabua). Nearly 40.08% of the tribal families in Jhabua largely rely on labour as a chief income source. The incidence of other sources of income such as livestock, petty trade, jobs in organised sector was marginal.

Figure 40: Primary source of income (in %)



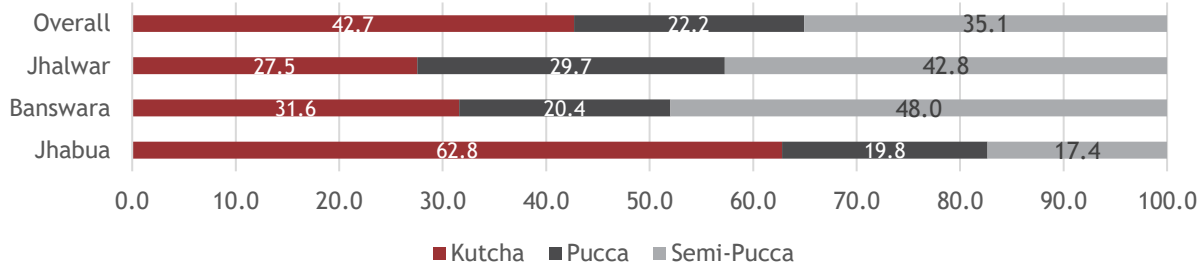
Standard of living

For this study, the standard of living has been measured on the following proxies:

- Type of house
- Availability of electricity at home
- Separate room for kitchen
- Availability of LPG

A pucca house is owned by nearly 22.2 % of respondents, while a semi-pucca house is owned by 35.1 %. The development of pucca houses is a recent change attributed to the PM Awas Yojana, a Government of India initiative to provide affordable housing for the rural poor. Jhalawar has a higher proportion of pucca houses than the national average. On the other hand, Jhabua has the lowest average.

Figure 41: Type of houses (in %)



Almost 53.3 % of respondents have a separate kitchen room. All three districts have access to electricity. Approximately 80.8 % of respondents cook with LPG. This is in addition to the use of firewood. In all three locations, firewood is still the primary source of fuel for the community. The use of LPG for cooking is highest in Jhalawar (94.2 %), followed by Jhabua (84.3 %) and Banswara (70.0 %), respectively.

The availability of LPG in Jhabua is a recent change that can be attributed to this project, as LPG cylinders were distributed to the beneficiaries as a part of initiatives aiming to improve the living conditions of the community members The other sources of cooking fuel for the community are cow dung and agricultural residue (maize cob, small sticks, etc.). The figure below illustrates the living conditions of the beneficiaries on the proxies.

Figure 42: Standard of living (in %)

		Jhabua	Banswara	Jhalawar	Overall
House type	Kutcha	↓ 62.8%	31.6%	↑ 27.5%	42.7%
	Semi-pucca	17.4%	48.0%	42.8%	35.1%
	Pucca	↓ 19.8%	20.4%	↑ 29.7%	22.2%
Do you have different room for kitchen	Yes	↓ 44.6%	53.2%	↑ 68.8%	53.3%
	No	55.4%	46.8%	31.2%	46.7%
Availability of electricity at HH	Yes	100%	100%	100%	100%
	No	0%	0%	0%	0%
Do you use LPG for cooking?	Yes	84.3%	↓ 70.0%	↑ 94.2%	80.8%
	No	15.7%	30.0%	5.8%	19.2%

In terms of housing, availability of LPG cylinders, and general standard of living, Jhalawar district is relatively better off than the other districts of Jhabua and Banswara. This is because of the following factors:

- Jhalawar has 94 % irrigated land, making it suitable for farming
- Jhalawar has little migration because more people work in agriculture as their primary source of income (which is about 92.03 %)
- Jhalawar has the highest literacy rate (68.1%) of the three districts

NM Sadguru has been working on water-related projects in Banswara and Jhalawar since the early 2000s. This may have resulted in a cascading effect in the community, with other basic amenities such as electricity, infrastructure such as a road, market access, and so on following.

Banswara	Jhabua
Banswara has a literacy rate of 49.6% which is higher than the overall average	A literacy rate of 35.1% - lower than the overall average
88.4% of the total land is irrigated	64.14% of the total land is irrigated
83.2% beneficiaries in Banswara are dependent on agriculture as their primary source of income; 18.8% beneficiaries are dependent on labour	The lack of irrigated land makes it difficult for the community to rely solely on agriculture as a source of income. As a result, 40.08% of beneficiaries in Jhabua rely on labour as their primary source of income, while 65.29% rely on agriculture

Interventions such as the distribution of double LPG, Floriculture, SHG formation, Goatry and Buffalo unit, sewing capacity building sessions, fiber sheet for kitchen, and so on were carried out specifically in unit Jhabua. The fiber sheet activity was designed to provide women beneficiaries with better lighting in the kitchen for cooking and to reduce electricity consumption. In Jhabua, approximately 1100 fiber sheets were distributed.

Figure 44: Floriculture beneficiary

Figure 43: Fiber sheet in beneficiary kitchen

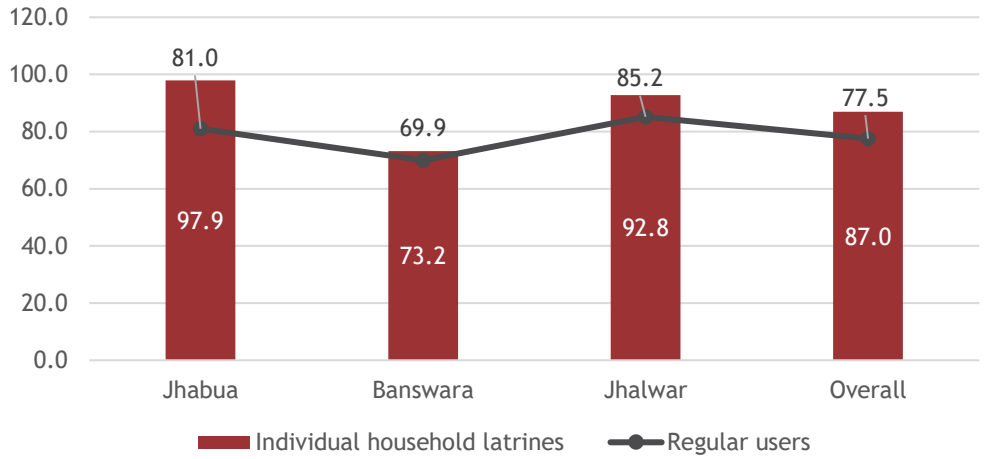
Availability and usage of toilets

Approximately 87 % of respondents reported having individual household latrines. 77.5 % of those surveyed reported using it on a regular basis. The coverage of individual household latrines can be largely attributed to the Swachh Bharat Abhiyan, in which

the government contributed towards the IHHL construction. The improved accessibility of water is critical for the sustained usage of WASH facilities in the community and can be qualified as an aspect of the project's impact in the community.

- 97.9 % of respondents in Jhabua reported having individual household latrines, with 81 % using them on a regular basis
- 92.8 % of respondents in Jhalawar had individual household latrines, with 85.2 % using them on a regular basis
- 73.2 % of households in Banswara had individual latrines, with only 69.9 % using them on a regular basis

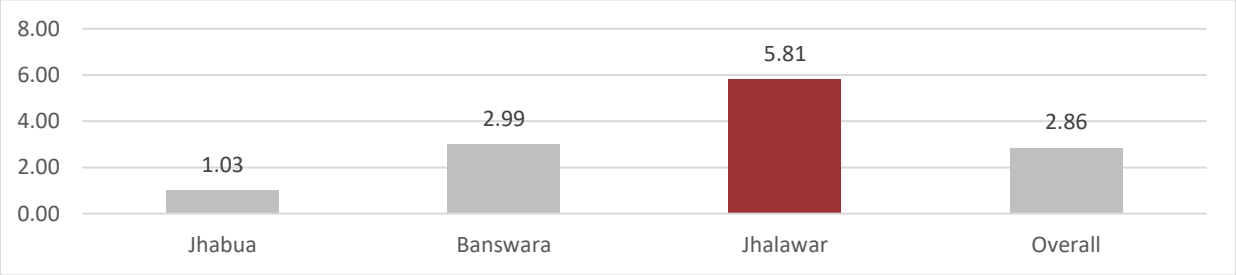
Figure 45: Availability and usage of toilets (in %)



Land profile

Majority of the respondents that participated in the study are small farmers. It underlines the importance of the project(s) in supporting the marginal farmers. Average landholding size across the locations is indicated below:

Figure 46: Average landholding



The next section discusses the impact of the project on beneficiaries.

Section 7

Impact

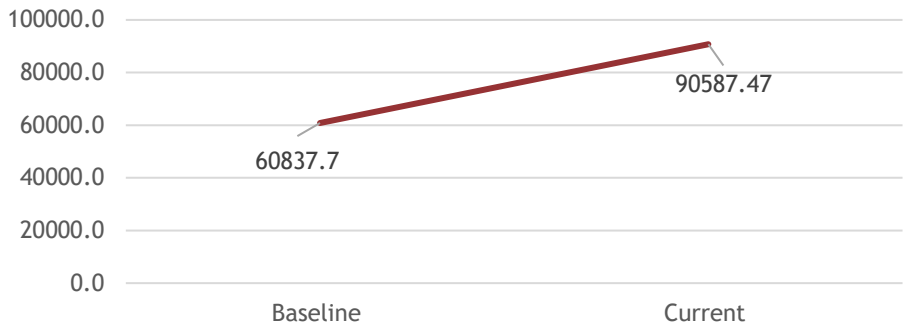
7. Impact

The project ended in 2019 across the project locations and the impact assessment study was carried out in 2021. The delta changes on the various indicators discussed in this section can be considered as the sustained impact of the project.

7.1. Impact on Income

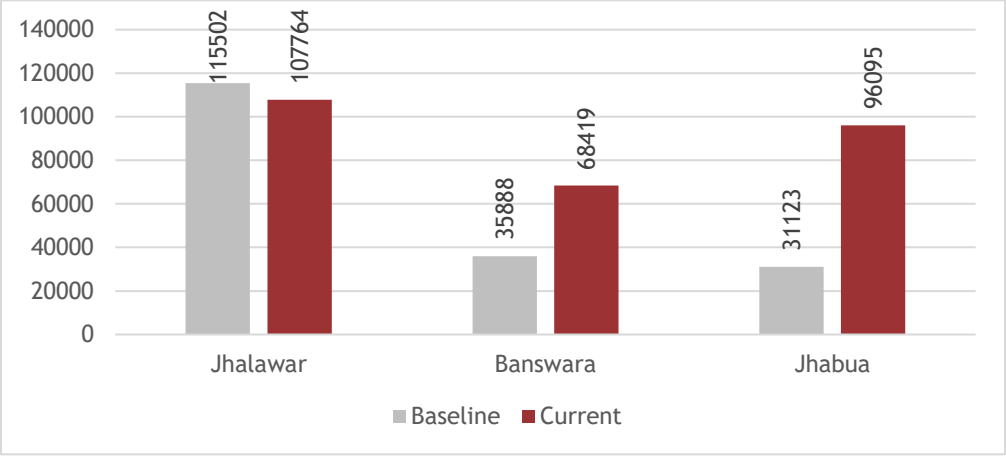
There has been a notable increase in the annual income of the HH covered under the project. The average HH annual income currently is INR 90587.47 which is a 49% increase from the baseline HH annual income which was INR 60838 prior to the intervention.

Figure 47: Increase in the overall income



It was observed during the study that the farmers recognise the role of the project to the increase in their income. The gross income in Banswara and Jhabua has increased by 90% and 200% respectively over baseline. In Jhalawar, it is still close to the baseline levels. It may be noted that COVID – 19 related contingencies impeded the availability of farm inputs and labour income in some of the areas more than others Further, the duration of project in Jhalawar was lesser than that in the other 2 locations, which may be a contributor to a relatively lower change in the income levels.

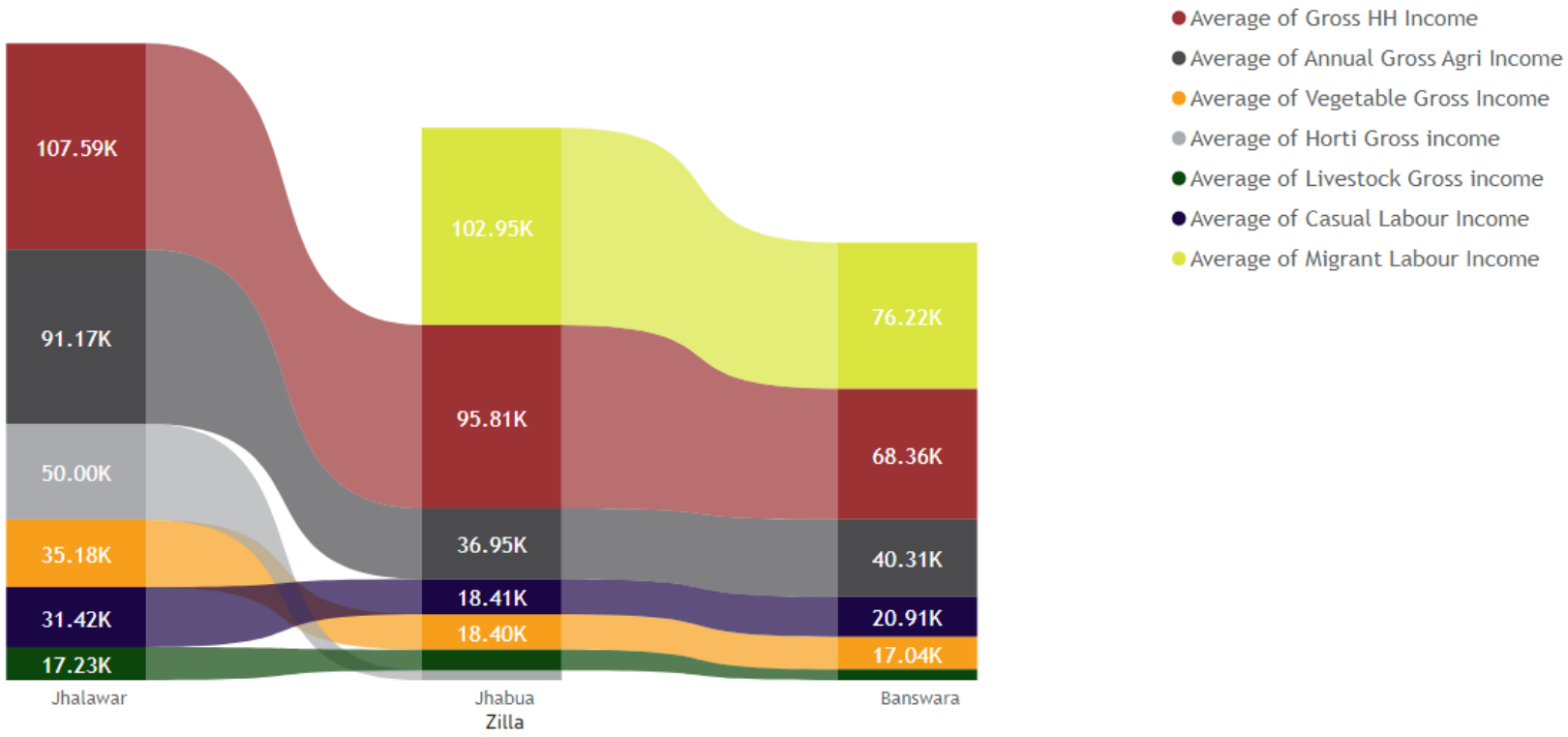
Figure 48: Increase in the overall income – Project Locations



The primary contributors to the increased income are agriculture (including seed business), vegetable production, livestock, and labour. The change in farming patterns owing to change in agricultural PoPs (package of practices) has resulted in improved yield in quality as well as quantity (basis the baseline).

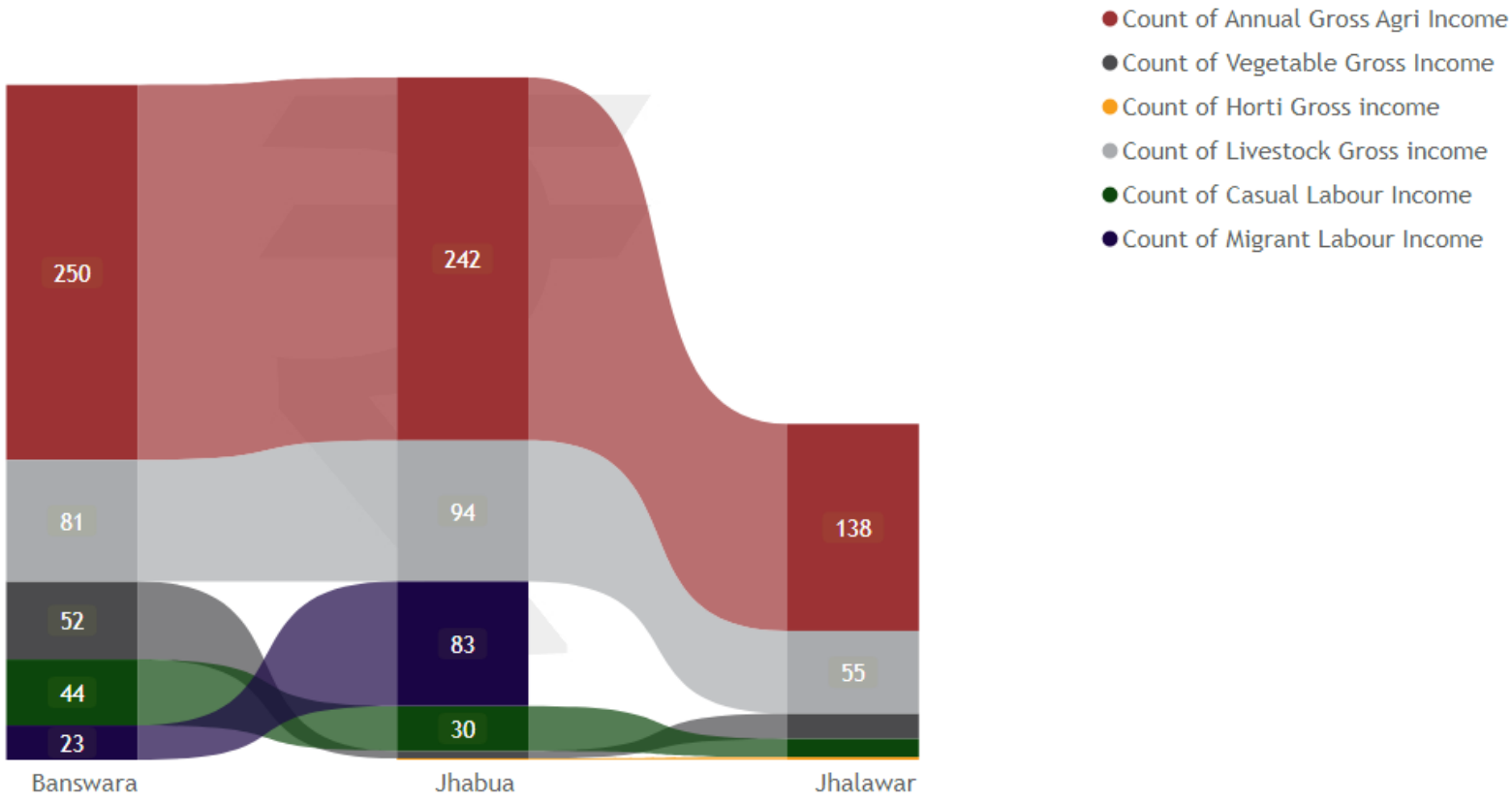
Migration labour also came out as one of the major sources of income. However, it is important to note that it is not distress borne and rather aspirational due to proximity of industrial hubs such as Vadodara, Surat, Indore (Pithampur), etc. Some of the HH's also reported business, service, and pension as their income sources, but the incidence of such HHs is low.

Figure 49: Average income from major sources



100 % of the households covered under the study are involved in agriculture, further underlining the importance of water, agriculture and agriculture allied activities undertaken in the project. Vegetable cultivation emerged as a major alternative source of income.

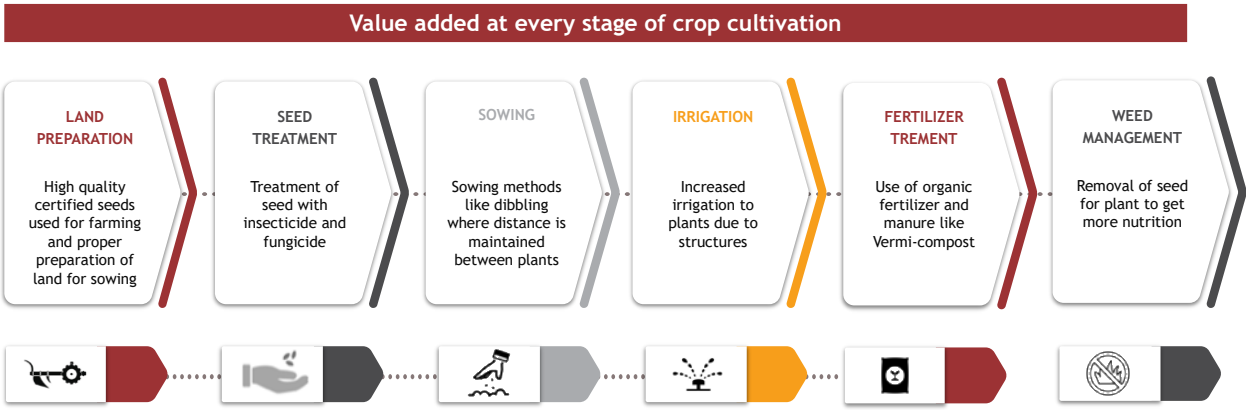
Figure 50: Incidence of major income sources



Agricultural practices and productivity

Given the communities' reliance on agriculture & allied sector, the project strived at improving the agricultural productivity in the area. The key value additions in the agricultural PoPs reported by the farmers are indicated below:

Figure 51. Value added to each stage of crop cultivation



The key possible contributors to the agricultural impact are:

Improved quality of seeds -Beneficiaries have been using certified seeds provided by NM Sadguru under the seed cultivation project to increase crop yield. In the seed cultivation cycle, these high-quality seeds are rotated. The community has also been introduced to practises such as seed treatment prior to sowing. Farmers who benefited from the programme received capacity-building training in seed treatment. Farmers are now treating their seeds with insecticides and fungicides to keep pathogenic organisms and storage insects at bay.

Improvement in farmer's agricultural understanding - The increased productivity of crops can be attributed to introduction of farmers to appropriate methods of land preparation, weed management, and other topics discussed in farmers' capacity building and Farmer Field Schools.

Some of the key features covered under farmer trainings as recalled by farmers in the FGDs are:

Land preparation – Farmers were given capacity building trainings on preparation of land before sowing. The farmers were informed about land preparation techniques like pre-irrigation, weeding of field,

ploughing, and harrowing, etc. It controls the crop diseases and pest invasion, which enhances good yield.

Seed treatment – Farmers were given capacity building trainings on seed treatment. The process increases seed survival rate, increases resistance to disease, eliminates pathogens on seed and in the soil, it further improves fertilizer and water efficiency, improving the quality of yield.

Sowing – Sowing methods like dibbling were introduced to farmers through the project. Seeds are sown in holes in seedbeds made at appropriate distances. Due to fixed spacing seeds get rapid and uniform germination with good seedling vigour. This improves the quality of yield.

Fertilizer treatment – The project promoted using organic fertilizers like vermi-compost that has increased the quality of yield but also improved the quality of soil. Farmers were given vermicomposting kits as part of the project, as well as training on how to use them.

Weed & pest management – Technical inputs on weed and pest management were given to the farmers by the project team(s) as required by the farmers

Availability of water for irrigation -Project interventions such as the development of integrated watershed structures, well deepening and lining, drip irrigation, lift irrigation, and so on have increased farmers' access to irrigation water. It has also expanded the amount of irrigated land available for cultivation.
Farmers were given vermicomposting kits as part of the project, as well as adequate training on how to use them.

Improved quality of soil - Project interventions like farm bunding, stone bunding, gulley plug (check-dams) has reduced soil erosion and increased soil moisture in the region, especially in Jhabua. It has further reduced run-off across sloping hilly terrain and helped impound water for longer. These conservation methods have increased the crop area and yield. Diversification of agricultural crops through vegetable cultivation has increased the number of crops grown in a year and led to prevention of soil erosion.

The project focused on crop enhancement for major crops taken in the Kharif and Rabi seasons. During the FGDs and KIIs, the farmers reported an improvement in the crop productivity across their crop portfolio. The section discusses the impact of the project(s) in 4 major crops – 2 each for Kharif and Rabi seasons.

Figure 52: Crop Sown

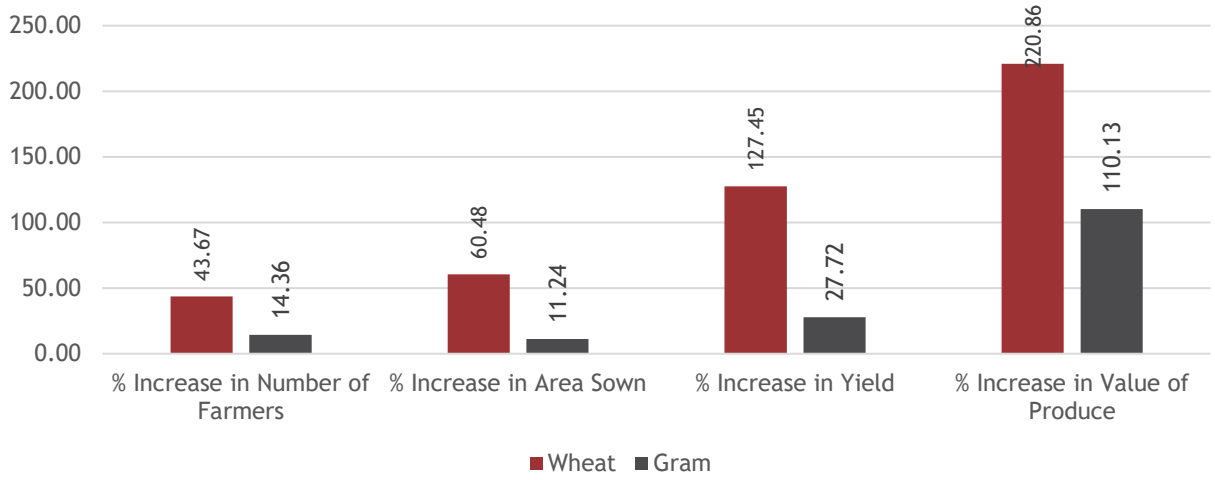
Rabi crops

The two major crops grown during the Rabi season: wheat and gram (channa) are discussed in this section. The graph below depicts the evolution of the package of practises for these major crops since the project's inception in 2016. There are notable changes in:

- ✓ Number of farmers taking the respective rabi crops
- ✓ Area covered under the crops
- ✓ Yield, and thus the monetary value of the produce

The changes are summarised in the figure given below.

Figure 53: Impact on Rabi crops

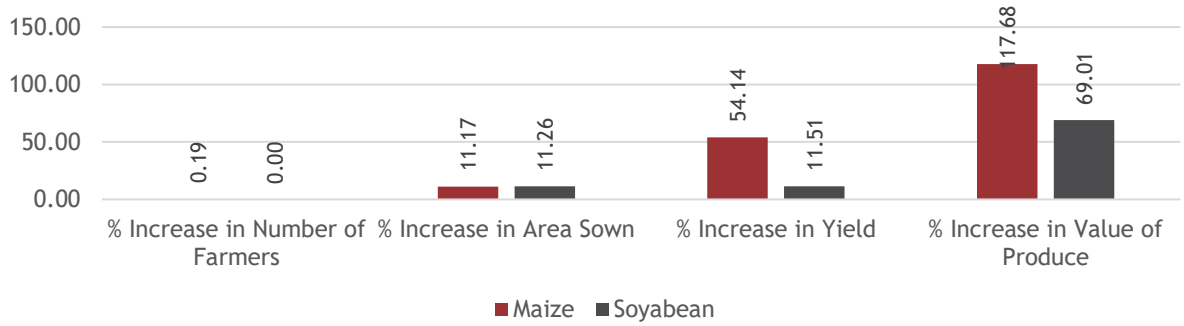


- ✓ There has been an increase in the number of farmers engaged in crop production. The number of wheat farmers has increased by 43.67 %, while the number of gram farmers has increased by 14.36 %. Improvement in the availability of water (discussed in the subsequent sections) and better-quality seeds can be considered as the major contributors to this improvement.
- ✓ Wheat cultivation area has grown by 60.48 %, while gram cultivation area has grown by 11.24 %.
- ✓ The increase in yield was found to be substantial. Wheat yield has increased by 127.45%, while gram yield has increased by 27.72%.
- ✓ The value of the produce has been calculated at the MSP rates prevalent during the 2014 and 2021. Wheat's value of produce has increased by 220.86 %, while gram's value of produce has increased by 110.13 %.

Kharif crops

For the purposes of this study, we chose two major crops grown during the Rabi season: maize and soybean. The graph below depicts the evolution of the package of practises for these major crops since the project's inception in 2016.

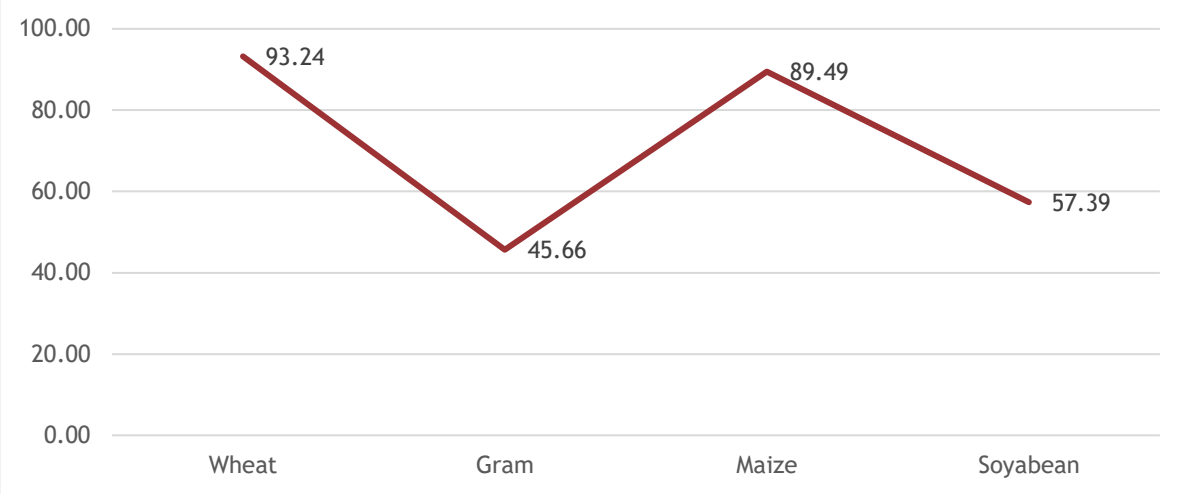
Figure 54: Increase in package of practices for Kharif crops



- ✓ There has been no significant change in the number of farmers engaged in crop production for both soybean and maize. This may be because Kharif crops are conventionally rain-fed due to the advent of monsoons.
- ✓ The area under cultivation for maize has increased by 11.17 %, while the area under cultivation for soybeans has increased by 11.26 %
- ✓ Maize yield has increased by 54.14%, while soybean yield has increased by 11.51%.

Cost of Cultivation (in %)

Figure 55: Cost of Cultivation



In 2021, the cost of cultivation has increased from the levels of 2014. The primary reasons for the same may be:

- Agriculture has become input intensive over the years, due to improved availability of seeds, new variants of weedicides, fertilizers, etc.
- The project introduced better variety of seeds in the project area, however, post the phase-out of the project from most of the project villages, the farmers are purchasing the seeds from open market. There is also a shift where farmers who were using the seeds grown over the previous year have started preferring better variety seeds available in the market.

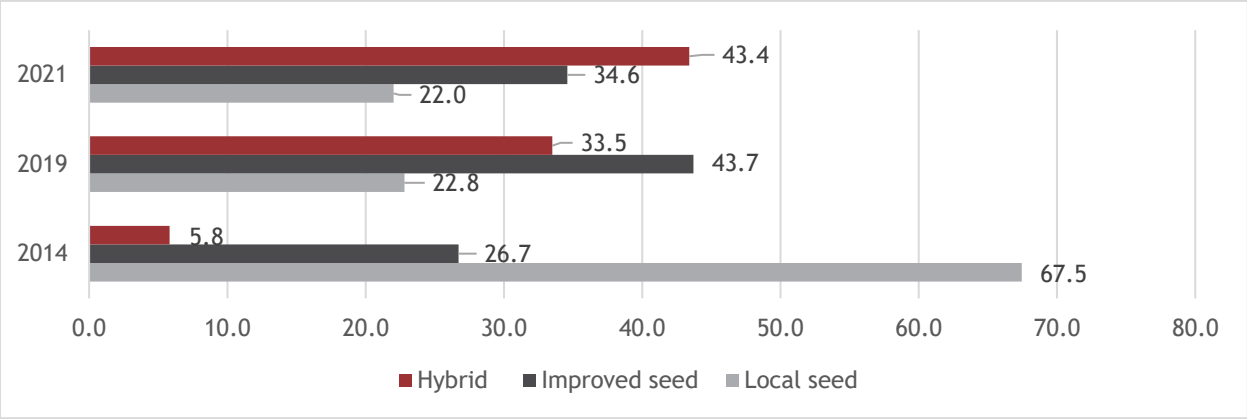
The project has caused a cascading effect where the farmers have moved from conventional agricultural techniques to the aspirational ones due to better availability of water. However, it also paves a way for the way forward of the project where conservational agricultural practises and resource optimization may be promoted. This emerging need is further discussed in the sustainability and way forward section.

Seed cultivation

There has been a shift from using local seeds to hybrid and improved seeds in farms over the last few years in the project area. The communities in Banswara practice seed production that operates under the lift irrigation cooperatives. The community informed during the FGDs that they were provided capacity building trainings on seed production.

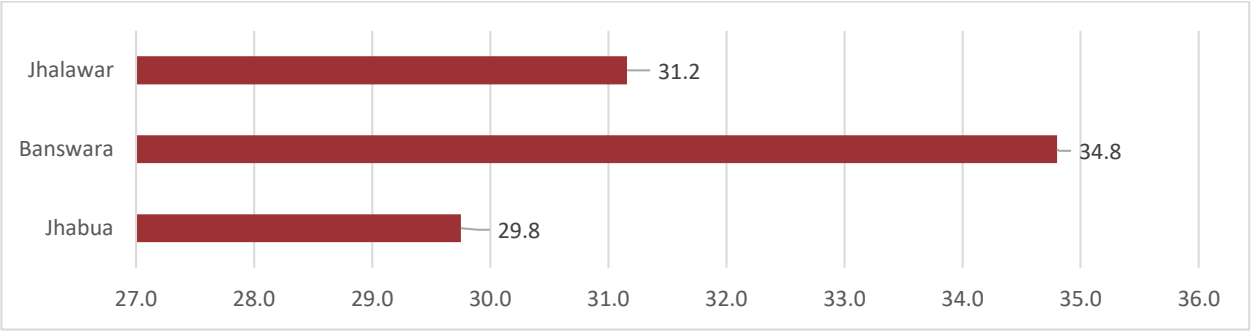
The illustrative below highlights the change in the type of seed used for agriculture over the years It should be noted that the graph is talking about the increase in the number of users who are now using hybrid and improved quality seeds for crop cultivation.

Figure 56: Change in the type of seed used for agriculture



The learnings from these capacity building trainings included seed treatment before sowing, reduced usage of fertilizers, increased use of organic fertilizers or manure, etc. Around 31% of the overall respondents had chosen to treat their seeds after receiving technical inputs. The beneficiaries in Banswara have seen significant change of about 34.8% respondents treating their seeds before sowing. About 29.7 and 31.5% respondents in Jhabua and Jhalawar, respectively have chosen to treat their seeds after receiving technical inputs from the project team.

Figure 57: Seed treatment after receiving technical inputs (in %)



The seeds are graded by the government agency before they are certified. The beneficiaries further mentioned that the project team provided them with improved seeds while the project was ongoing, at a subsidized rate. The rates varied between the locations. These seeds have since improved the quality of seeds revolving in the seed cultivation operations and the overall yield.

Maanjhi Dala
Seed cultivation beneficiary

Maanjhi Dala is a resident of Balansindur village, Banswara. He has five kids – three daughters and two sons. His elder son is a teacher, and his daughters are appearing for REET examination this year. Maanjhi is getting a pucca house constructed as his eldest daughter will be getting married next year. He gives credit to NM Sadguru and this project to have provided him with opportunities to improve his agricultural yield.

He is part of the seed cultivation committee in the village. Last year he was able to earn INR 1,45,800 from seed cultivation for Maize. He came across NM Sadguru and this project in 2017 when the lift irrigation committee (Mahodaik Jal Othan Sinchai Sahakal Samiti, Banswara) he is a member of had a meeting with NM Sadguru. In the meeting the idea was proposed to cultivate and prepare hybrid seeds in the village. Before the intervention, the farmers in the community would buy seeds from the nearby market.

Maanjhi has 20 bigah land where he cultivates maize and wheat. He was provided with hybrid seeds at subsidized rates by NM Sadguru. He was further provided trainings on processes like seed treatment which they rigorously follow every year before sowing the seeds. The maize seeds last year were sold at INR 27 per kilogram to NM Sadguru which is much higher than the market price of INR 16 per kilogram. He also mentioned that wheat cultivation is new to their farming practices as they did not grow wheat till a few years before. It is now part of their staple diet as well.

Capacity building on agricultural package of practices

During the interaction with farmers, they expressed the capacity building trainings have contributed towards the improved yield. The key findings regarding the change in package of practices are summarised below:

Earlier the common practice for sowing was broadcasting. It is a process of random scattering of seeds on the surface of seedbeds. Around 31% respondents practiced broadcasting before the technical input.

Figure 58. Change in sowing techniques after technical inputs (in %)

	Pre Intervention		Post Intervention	
Location	Broadcasting	Sowing at Fixed Distance	Broadcasting	Sowing at Fixed Distance
Jhabua	31.8	68.2	0	100
Banswara	30.4	69.6	0	100
Jhalawar	31.9	68.1	0	100

The capacity building trainings promoted other sowing methods like dibbling, drilling and hill dropping. In these methods, seeds are dropped or placed at fixed spacing either by drilling or by hand. The community has evidently completely discontinued the practice of broadcasting today.

The project geographies have seen a significant change in fertilizer usage for crops. An average of 84.3% respondents have changed their fertilizer usage after receiving technical inputs from the project staff. The farmers have shifted to organic fertilizers like Vermicomposting, farm-yard manure and other green fertilizers During the interaction with farmers, it was reported the exposure visits have motivated farmers to innovate and produce their own organic manure for crops. Out of the three locations, farmers in Jhalawar have significantly changed their fertilizer usage. Farm-yard manure is the mostly used as an alternative to chemical fertilizers.

Figure 60: Change in fertilizer usage for crops (in %)

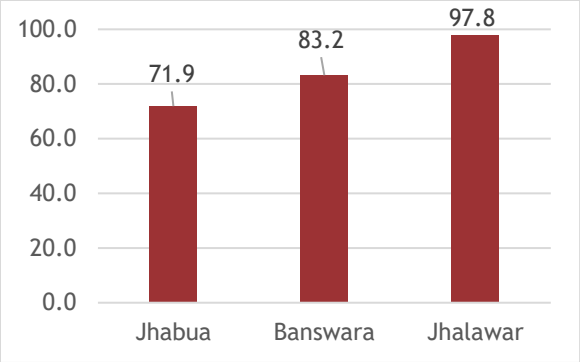


Figure 590: Type of organic fertilizer used (in %)

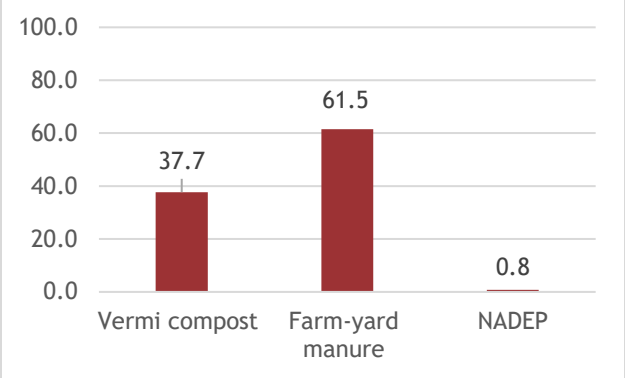
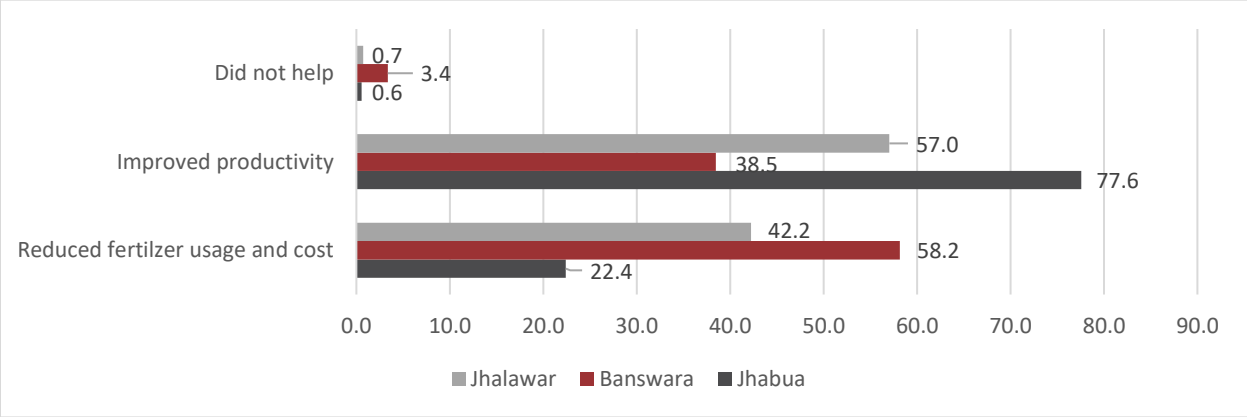


Figure 61: Benefits of change in fertilizer as mentioned by beneficiaries



The farmers responded change in fertilizers has helped them improve productivity. About 57.7% respondents expressed that crop productivity has increased due to change in fertilizer. Other benefits listed by benefits was the reduction in usage of fertilizers and reduction in cost.

Applying organic fertilizers supplies crops with sufficient nutrients to achieve optimum productivity, while rebuilding the soil fertility and ensuring its protection. Around 56.3% were using organic fertilizers. Of the respondents using organic fertilizers, 61.5% were using farm-yard manure and 37.7% were using Vermi-compost manure. Majority respondents stated they produce organic fertilizers on their own. Vermicomposting further eliminates the input cost on manure.

During the interaction with the beneficiaries, it was noted that there has been an increase in the number of crops that are grown in a year. The beneficiaries informed that earlier they could only grow one crop in a year. It was after the early water interventions of NM Sadguru that the community got access to water for irrigation. This resulted in increase in the number of crops grown in a year from one crop a year

to two crops a year. The project interventions like well deepening, drip irrigation, etc. managed to increase the access to water for irrigation especially for Rabi season. The vegetable cultivation has further increased the crops that are grown by the community.

Soil conservation interventions have been undertaken in Jhabua. The project geography is classified as drought prone and semi-arid. The terrain is hilly and undulating for Jhabua. There is high soil erosion reported in the region. Project interventions such as farm bunding, stone bunding, gulley plug (check-dams) have reduced soil erosion and increased soil moisture. It has helped reduce run-off across blocks of sloping lands and helped impound water for longer and seize soil from being washed away from the fields. The conservation measures have contributed to the increase in yield.

Nearly 37.7% respondents reported to be using vermi-compost manure for vegetable cultivation. During the interaction with beneficiaries on field, they reported the manure has resulted in improved quality of plant and yield.

67 respondents out of 630 reported to have gotten their soil health tested. These account for 10.6% of the total respondents. The representation of respondents who have changed their agricultural practices after getting the soil tested is 1-2%. During the interaction with beneficiaries, they reported not having the soil health cards.

During the FGDs it was noted that the effect of the farm demonstrations, trainings and exposure visits has reached out to the larger community as well. Based on positive experiences of their peers have undertaken suggested practices in their own fields. Majority of the farmers interviewed reported being part of exposure visits organized for cross learnings. Those farmers who were beneficiary of the demo plots reported that many of the farmers who visited their field as part of cross learning exercises had followed up with them on the techniques used by the demo farmers for improvement in yield. The exposure visits have been an important game changer for the farmer's willingness to innovate and take risks. For instance, in discussions the champion/lead farmers consistently stressed on willingness to experiment and innovate. They attributed this change in attitude to the variety of exposure visits.

Alternative livelihoods

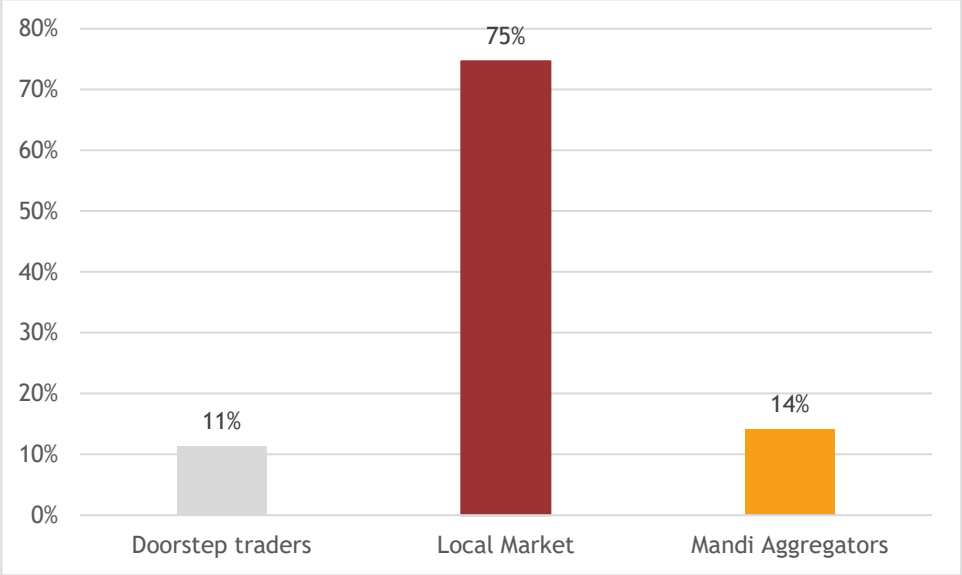
While agriculture is the main source of livelihood for the target community, there was a need for alternative livelihood options for improving the resilience in the community. The project promoted multiple alternative livelihood options including like horticulture, vegetable cultivation, and kitchen gardening. Of all the interventions implemented by the project team, vegetable cultivation emerged as key

component that has directly contributed to the increase in income of the project beneficiaries.

Vegetable cultivation and nursery

Vegetable cultivation, being an additional source of income as well as nutrition, has been especially beneficial to the beneficiaries during COVID-19. Vegetables are grown on trellis or open field cultivation and are reportedly sold in the local open markets. The investment to return ratio is high for vegetables. The farmers who are trading vegetables largely rely on the local markets (71%) for selling their produce. NMS reported that aggregation of produce was not considered under the project(s) as farmer's are able to access better rates locally.

Figure 62: Sources for selling vegetables (in %)



The intervention is complemented by nursery program, where leader farmers identified from villages are operating nurseries. These nurseries are the main source of vegetable saplings for cultivation. The saplings are sold to farmers at cost as low as INR 1-2 reducing the input cost.

Vesiya and Kenda Kheema
Vegetable cultivation beneficiary

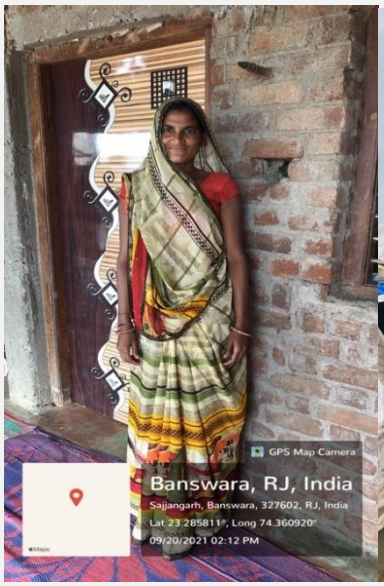
Vesiya and Kenda Kheema are dwellers of Mod in Jhabua and are primarily dependent on agriculture for their livelihood. Prior to the project, they were practiced subsistence farming on their .875 bigah of land with conventional crops using traditional techniques. The project

team introduced the couple to vegetable cultivation. At present, Vesiya and Kenda has 0.4 acres of land dedicated towards vegetable cultivation on which tomato, bottle gourd, brinjal, chillies, papaya etc. grows in abundance.

The Kheema's shared that due to the cultivation of vegetables, their income has diversified & increased with minimal inputs. The couple informed that they sell their produce in the nearby market as they grow more than their own personal requirements. Kenda bai further shared that even their family have incorporated vegetables in their regular diet which was not the case prior to the project.

The results of vegetable cultivation have motivated farmers in and around their village. The Kheema's aptly reflects the changes that have been envisaged for bringing about sustainable change in the agriculture-based livelihood practices.

Sarita
Floriculture beneficiary



Sarita, 25 years is a resident of Magarda Khatela village, Banswara. Her family consists of 7 members Her 3 children, husband and in-laws. She has two daughters and a son. Besides being a full-time mother, Sarita has been practicing floriculture since 2016. She does marigold floriculture starting July to December every year. She has about 800 marigold plants. In 2019, she sold marigold flower for INR 20 per kilogram to the local flower vendor. The reoccurring income from floriculture has helped Sarita contribute in building a pucca house for her family. Her husband bought a two-wheeler in 2017 from the earnings received through marigold cultivation.

During the conversation with her, she said, “I learned about floriculture from NM Sadguru. I have been growing marigold and roses for the last four years. Last year we could not cultivate due to the pandemic. We are shifting from kuccha to a pucca house, the construction is on-going. The input / investment that goes into floriculture is less, but the profit margins are huge. From my earnings from floriculture, I am now able to contribute to the construction of our house. It makes me happy that I am able to bring home some income and share responsibilities with my husband.”

Horticulture

Horticulture was promoted to prevent erosion, arrest water runoff and acted as an alternative source of livelihood. Out of the 630 beneficiaries surveyed a total of 54 respondents reported receiving the project support for horticulture and the survival rate of the plants was reported to bed 93.25%.

Figure 63: % of respondents who received plants under the project

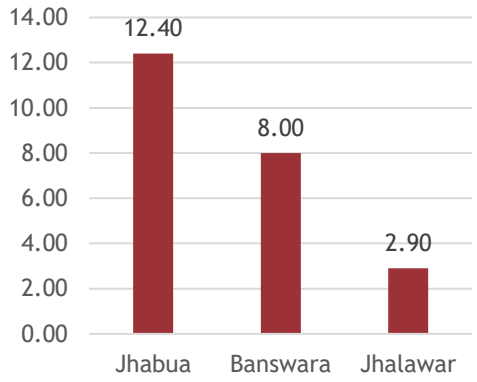
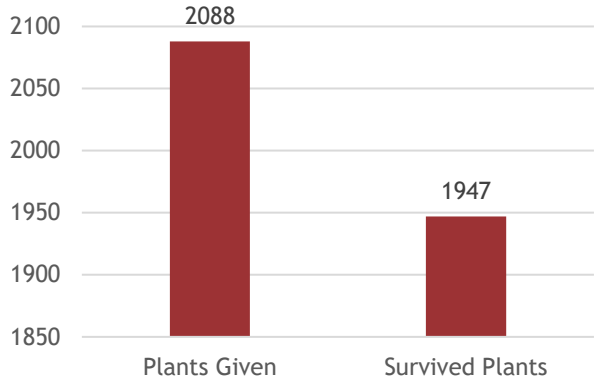


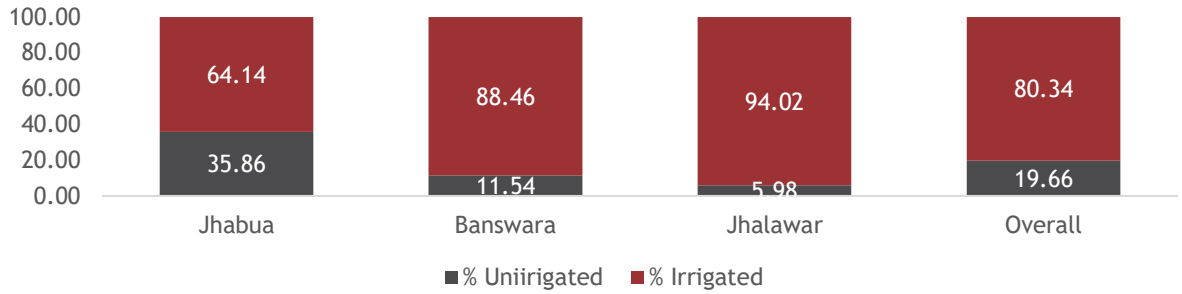
Figure 64: Survival Rate of given Plants



7.2. Improved access to water & water management practices

Irrigated land accounts for approximately 80.3 % of the total landholding. The remaining 19.7 % is land that is rainfed or unirrigated. Jhalawar has approximately 94 % irrigated land, while Banswara has 88.5 % irrigated land and Jhabua has 64.14 % irrigated land. Apart from the hydro-geological reasons cited in the preceding sections, NM Sadguru has worked on water-related projects in Banswara and Jhalawar for longer than they have in Jhabua, which may be cited as a reason for the varying coverage in the project area.

Figure 65: Type of land (irrigated and non-irrigated)



Water availability and usage for irrigation

Approximately 91.9 % of those surveyed reported accessing the water for irrigation through the structures created under the project. Groundwater is the primary source of irrigation for 87.9 % of the respondents. Surface water is a secondary source of water for irrigation.

- Of the three districts, respondents in Jhabua reported the least access to irrigation (81.4 %). Banswara and Jhalawar have relatively high rates.
- Groundwater is the most common source of irrigation in Jhabua, according to 94.6 % of respondents. In Banswara and Jhalawar, respondents rely on both groundwater and surface water for irrigation.

Figure 66: Access to irrigation (in %)

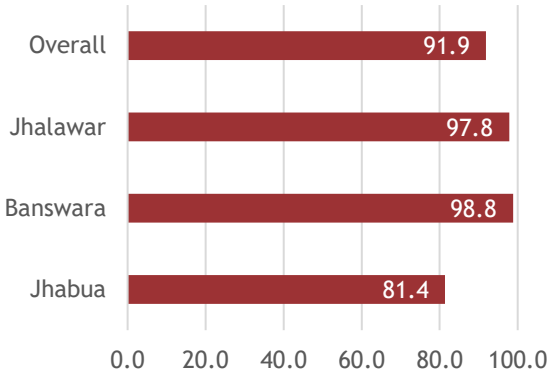
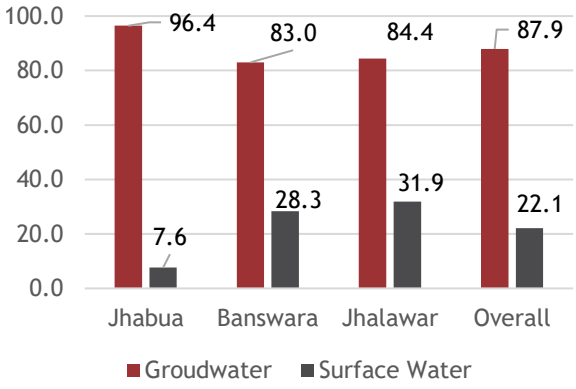


Figure 67: Source of water for irrigation (in %)



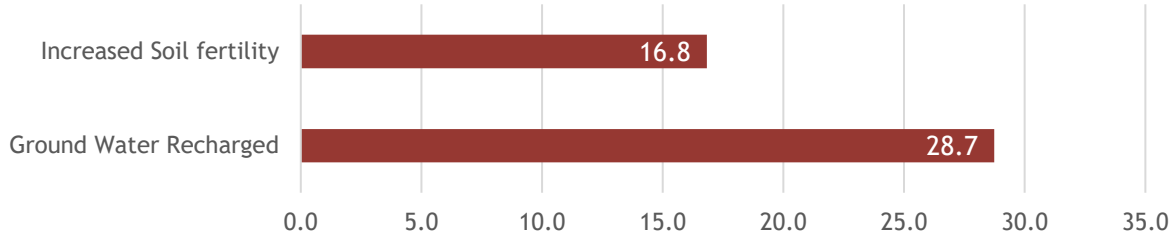
Improved access to water for irrigation

Earlier the community only wheat was cultivated in as kharif crop and paddy as rabi crop in agricultural land with optimum water retention capacity for cultivation. Water logging was an issue specifically in Jhabua which is characterized by undulating land and excess run-off of downpour and soil erosion resulted in low productivity. The need for water augmentation in Banswara and Jhalawar was relatively lower than in Jhabua. The land was not able to impound water for longer and soil would wash off from the fields. The watershed development project has adopted different water

conservation measures such as construction of water conservation structures. This has improved the availability of water in individual farms in dry seasons and intensified the crop cultivation.

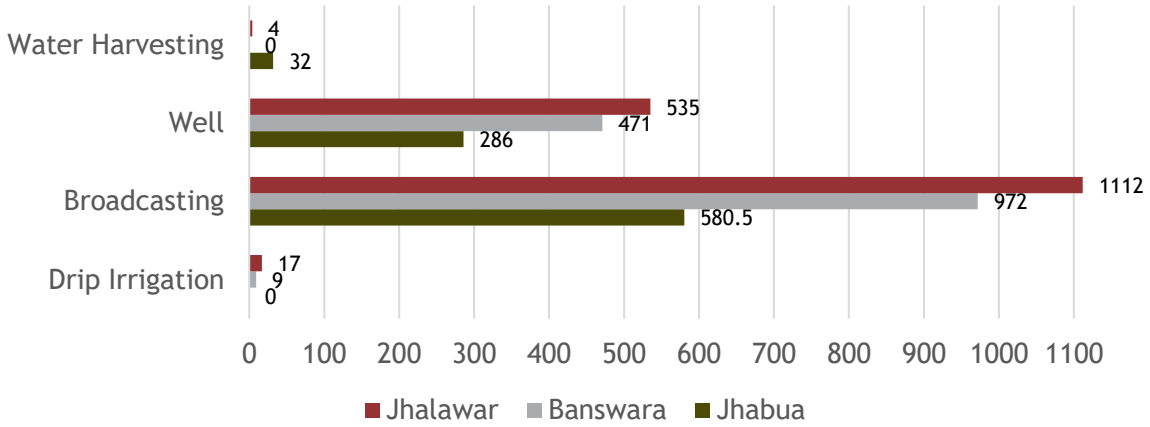
The productivity of most of the crops increased significantly. This has further increased the level of water in farm ponds and wells. There has been a significant increase in the irrigated land available for crop cultivation as mentioned above. There has been a significant increase in yield due to the availability and access of water for irrigation. The land has become arable since the implementation of project.

Figure 68: Benefits of watershed development activities highlighted by the beneficiaries (in %)



Land rejuvenation activities like stone bunds, farm bunding, gully plugging, creating barriers have improved the water retention capacity of soil further reducing soil erosion. Micro-irrigation systems like drip-irrigation were installed during the implementation of the project. Other water conservation measures that were adopted by the project are earthen tanks, gravity-based drip, ridge and furrow plantation and mulching. These changes altered the total cropping pattern and intensity in the area. There was a significant increase in the area sown since the implementation of the project.

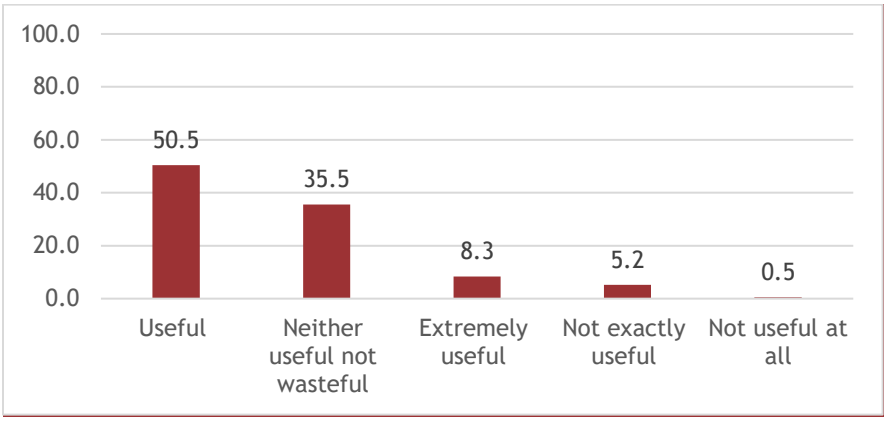
Figure 69: Area under different methods of irrigation across three locations



Around 88% of the respondents informed their major source of irrigation is groundwater. The creation of water assets has increased the water table especially in monsoon. The farmers have shared or private wells which are often used for irrigation. The creation of water assets has improved the water levels in these wells which are then used for irrigation. Around 50.5% respondents think the water related assets created under the project has resulted positively in change in water table.

However, farmers during the FGD interaction informed that the increase in water level is only seasonal which is monsoon. In other seasons like summer, the wells dry up and there is no source of water available for irrigation. The project team has implemented interventions like well deepening, lining and drip cum mulching which has imparted a positive impact. The intervention however could not forecast the demands of the project. It does not account for seasonal availability of water. Water budgeting would have estimated the amount of water the landscape will require.

Figure 70: Communities' perception if water related assets created under the project has resulted positively in change in water table



The irrigation practices are still largely conventional. The conservational irrigation techniques were only adopted by limited beneficiaries. There is an unmet and incremental need for water in community which may be due to increasing aspirations and lack of awareness on water management concepts such as water budgeting amongst the community.

Impact on livestock

Over the course of the intervention, the livestock has increased by 27.7%. The community majorly has cow, buffalo, goat, and sheep as the livestock. Nearly 16% respondents believe the watershed development activities have increased the availability of fodder for animals.

Figure 71: Respondents who believe watershed development has increased the availability of fodder for animals

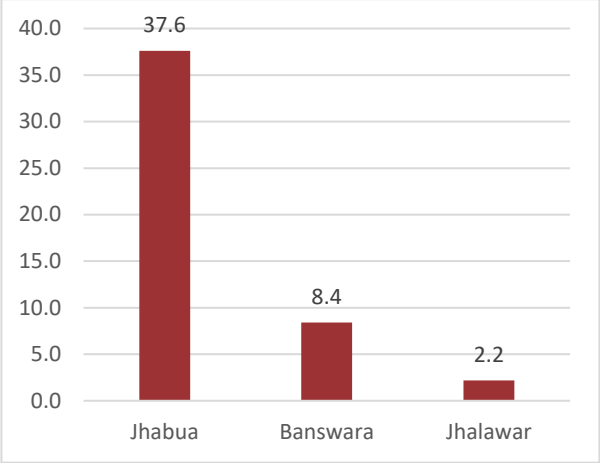
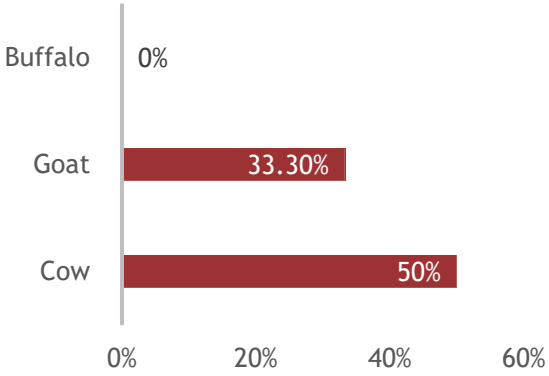
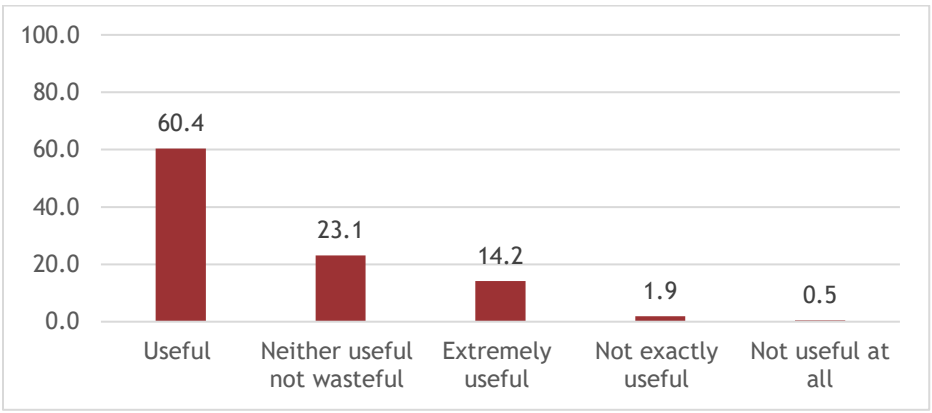


Figure 72: Change in the number of livestock (in %)



The project has created assets at individual as well as community level. The water-related assets created for the community are a shared common asset. These assets have resulted in increased irrigated land available for farming. Around 60.4% respondents think the assets created under the project are useful for the village community.

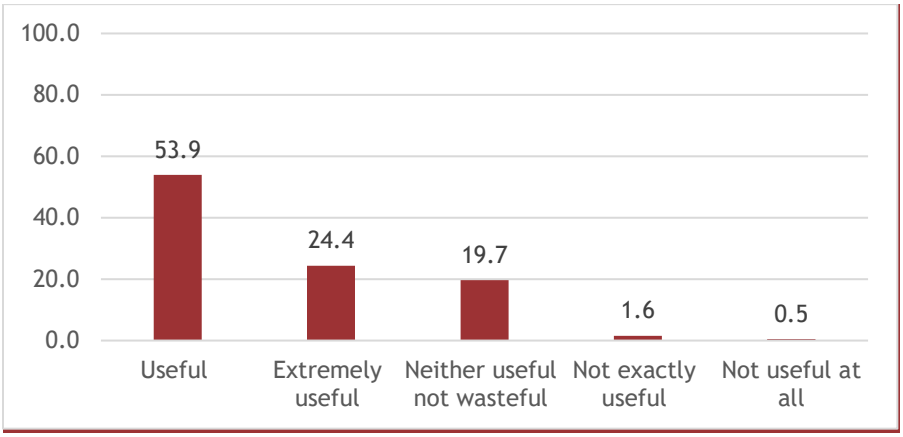
Figure 73: Communities' perception if the assets created under the project are useful for village community



Impact on potable water

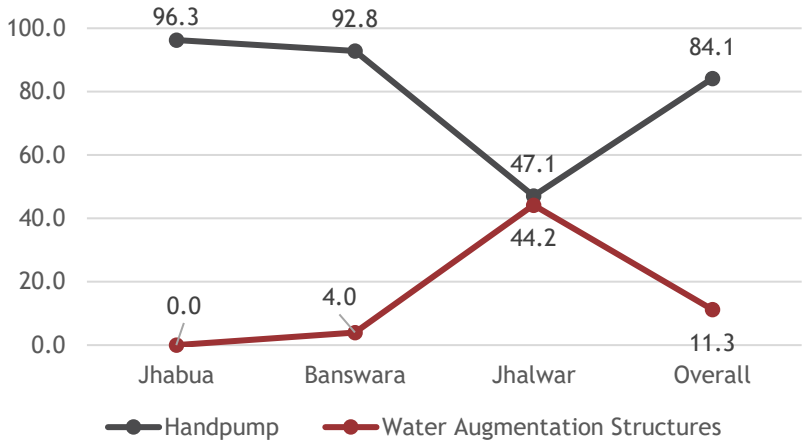
The creation of water-related assets has not only improved access to irrigation but also improved the availability of clean drinking water for the community. Around 53.9% respondents think the project has improved the availability of clean drinking water.

Figure 74: Communities' perception if the project has improved the drinking water availability



Almost 84.1 % of respondents said handpumps are their primary source of drinking water, while the remaining 11.3 % said they get drinking water from NM Sadguru's water augmentation structures & LI schemes.
The majority of households in Jhabua (96.3 %) and Banswara (92.8 %) were reliant on handpumps for drinking water, whereas in Jhalawar households were reliant on both handpumps (47.1 %) and water augmentation structures (and LI schemes) built by NM Sadguru (44.2 %) for drinking water.

Figure 75: Major sources of drinking water (in %)

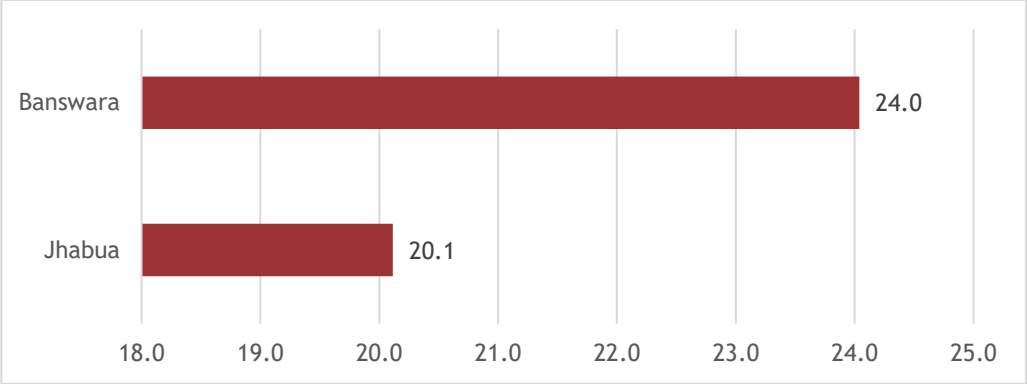


7.3. Reduced migration

Seasonal migration is a common trend in this geography. The lack of irrigation facilities in these locations has a cascading effect on the agriculture. Farmers migrate during off-crop season. However, the project(s) have managed to provide alternative

livelihood opportunities and year-round income source through vegetable cultivation, horticulture, etc.
There is a 24% reduction migration in Banswara and 20% in Jhabua. The migration trends are more common among youth. Jhalawar on the other hand did not see any migration before or after the intervention. Jhalawar is predominantly an agriculture community, and they have relatively higher irrigated land available for farming (which is about 94.1%). For these reasons, very few people migrate to cities for work.

Figure 76: Reduction in migration after the intervention (in %)



The change can also be attributed to availability of irrigation facilities which eventually improved the crop productivity and yield. The community indicated the same during the discussion with them in FGD.
The most common areas to migrate to are either urban cities within the state or cities outside of the state. Because Jhabua and Banswara share borders with Vadodara, it is a popular migration destination. In the last one year, attributing to the project interventions and COVID-19, 14.7% respondents reported their family members have come back.

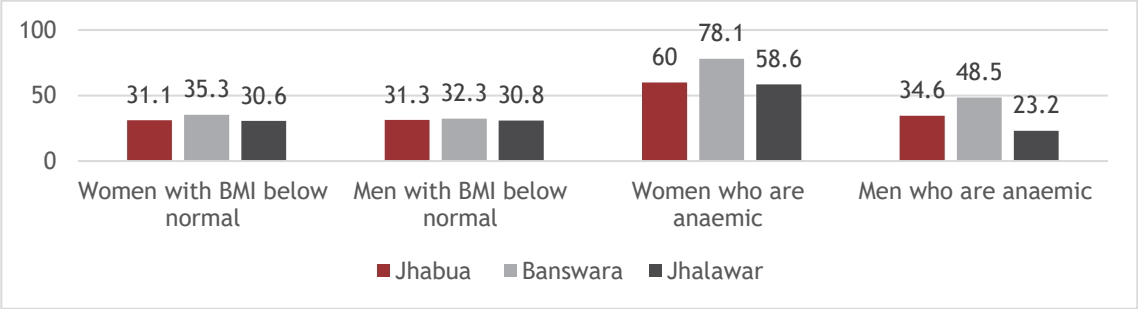
7.4. Improved living conditions

The project has directly and indirectly contributed to the living conditions of the beneficiaries. Some of the aspects are illustrated below.

Enhanced food and nutritional security

Undernourishment or chronically malnourished is widespread across the three locations. Inadequate provision of micronutrients such as iron, zinc and vitamin A has long-term effect on health and quality of life. It affects the physical and mental development. There is often lack of nutrition knowledge and of simple hygiene measures, especially in rural regions.

Figure 77: Nutritional status of adults (age 15-49 years) in 2015-16 (in %)

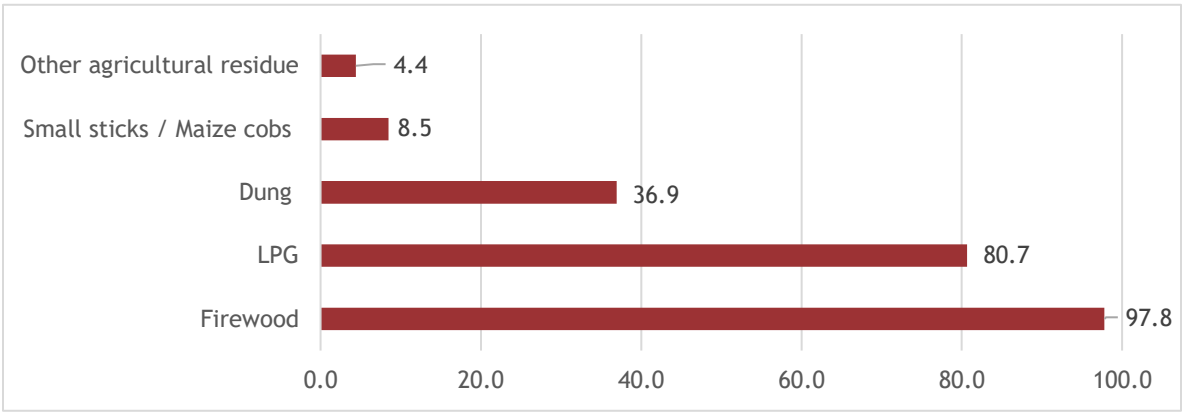


Due to the project interventions - vegetable cultivation and kitchen garden, the community is able to access options for nutrition. It has further improved the food palette of the community and improved household food security. With limited income earning opportunities and poor access to markets, these interventions are an important source of vegetable supplies and income source as well. Farmers now have direct access to diverse nutritionally rich vegetables, and it further saves on the food bills.

Efficient energy management

The major source of fuel used for cooking is the firewood which is used by 97.8% of the respondents. This is followed by the use of LPG cylinders which is used by 80.7% respondents. Other sources of fuel for cooking are dung, agricultural residue.

Figure 78: Major source of fuel used for cooking



For efficient energy management, the project team provided a few community members with biogas plants. Biogas is a clean, renewable, and reliable source of power in place of coal or natural gas. Of all the respondents, 20.75% respondents have reported to have gotten a biogas plant.

The intervention, however, did not manage to create the intended impact. As per the field interaction with beneficiaries, the biogas plants are not operational for some of the beneficiaries. Around 97.8% of the respondents are still using firewood as the

source of fuel for cooking. The relevance of biogas interventions not visible for the project other than a few households who have received the benefits. The net return on investment of the biogas intervention is not evident.

Creation of social good

The varied interventions have had a cascading effect on the amenities and has further improved the socio-economic conditions of the community members. These include the shift in the type of houses, changes in expenditure patterns, assets owned by the community members among many.

The baseline of the three locations states that only 10.3% households had pucca houses. The interventions have resulted in improved household income. This has resulted in a significant increase in the number of pucca and semi-pucca houses across all three locations. The increase in household income is not the only contributing factor for shift in type of houses. The community members have availed the benefits of government scheme Awas Vikas Yojana. In 2019, about 35.7% respondents said they availed the benefits of the scheme.

Figure 79: % of increase in Pucca Houses

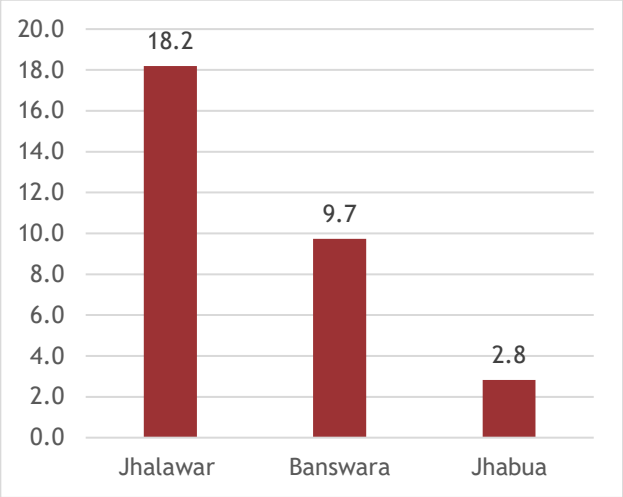
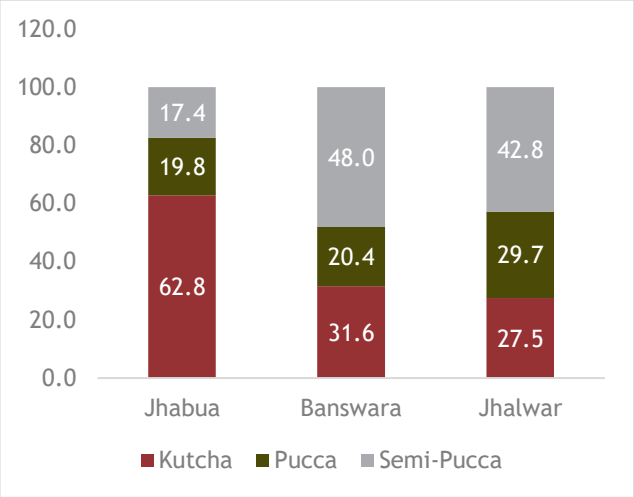


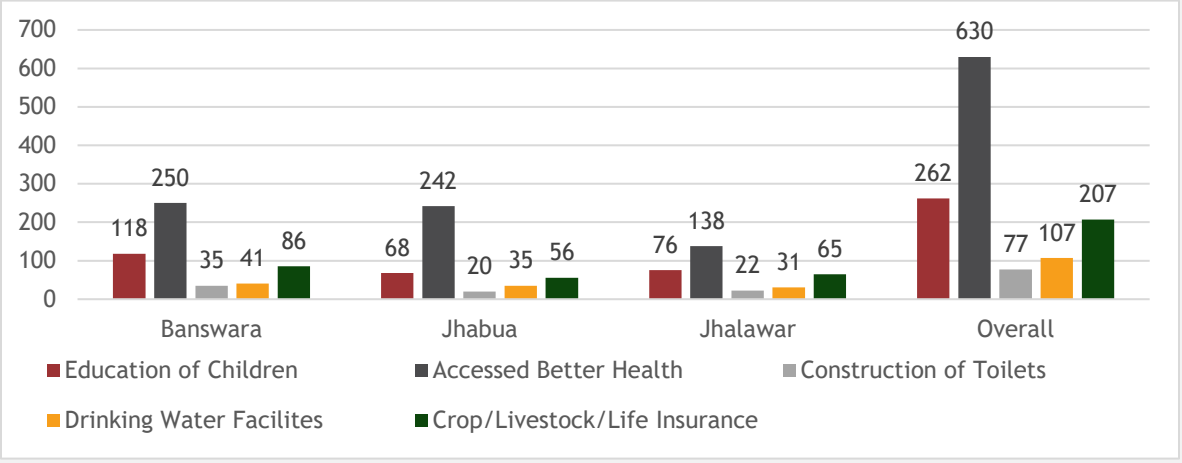
Figure 80: Types of Houses (Current Scenario)

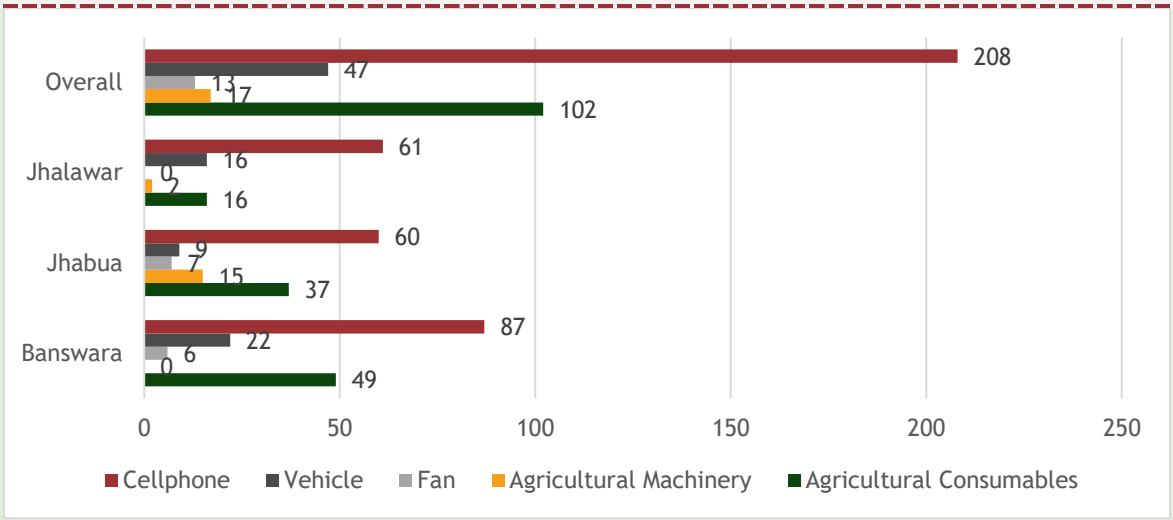


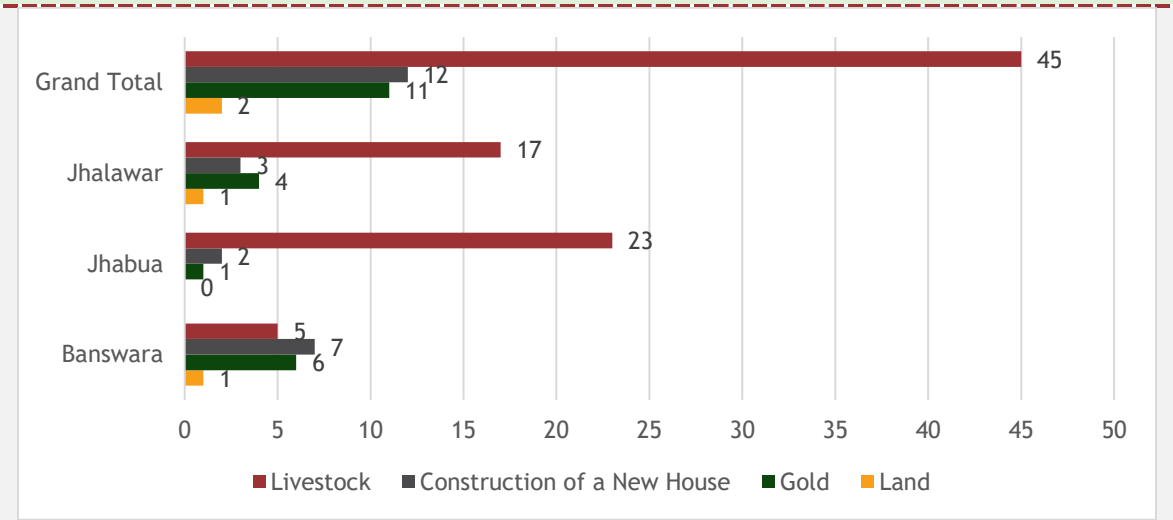
The community spends most of its earnings on educating the children and better healthcare facilities. During the discussion with beneficiaries in the FGD they reported the intervention has increased the overall household income. The community is now able to spend on necessities like education, healthcare, sanitation, and clean drinking water. The community has better access to facilities like electricity, better wage / income, opportunities within the community. The interventions on NM Sadguru in early 2000s was recognized as the leading factor for availability of these amenities by the community members. The vegetable cultivation had ensured the community has

round the year earnings. It provides them with a source of income all year round rather than depend on seasonal earnings from crop cultivation. The creation of various assets due to increased income (and expenditure) is indicated in the dashboard given below.

Figure 80: Expenditure pattern and creation of assets







The improved income and livelihoods due to the project has led to creation of assets and social good in the community.

New and informed leadership among the community

The project has created leadership among the community with community response persons and lead farmers. The exposure visits, regional events and on-field demonstrations have motivated CRPs as well as lead farmers to innovate and incorporate sustainable agricultural techniques into their agricultural practices. These lead farmers and CRPs have further acted as agents for knowledge sharing to other farmers in the village.

The project has trained 22 CRPs on stage wise crop cultivation and other agricultural practices. These CRPs could be the backbone of the project and play a major role in the sustainability of the project.

Lead farmers have motivated farmers to learn and replicate new agricultural package of practices. Mr. Nain Singh Tomar from Bedla, Jhalawar is an example of the same. He is a progressive horticulture farmer who created his own organic manure using domestic residue. He reportedly learned about creating manure in one of the exposure visits. This inspired him to try his own formula for creating organic manure.

Given the observations on outcomes and impact of the project(s), the next section discusses the SROI of the project(s).

Section 8

Social Return on Investment (SROI) Evaluation

8. Social Return on Investment (SROI)

8.1 SROI scope and boundaries

The analysis is an evaluative SROI analysis, to measure actual outcomes and impact that have taken place till 2021. The main objectives of this study are to:

- Map the economic and social benefits derived by the stakeholders arising from the investments by THF's livelihood enhancement project(s)
- Derive strategic planning and decision-making process from the consequences and continuation of these investments
- Assist THF in identifying aspects that can be potentially improved towards these investments in the future years

8.2 SROI evaluation approach

The evaluation has been carried out using a mixed methodology consisting of both qualitative and quantitative methods for collecting required data/information, and developing insights based on robust analysis. An evaluation framework was used as a guide to the entire process for mapping stakeholders, designing data collection tools and plan for data analysis. The framework captured the economic, social and environment outcomes of the programs. Due to the data bounds and considering evaluative SROI as a data hungry process, only those stakeholders with full data available were considered in this analysis.

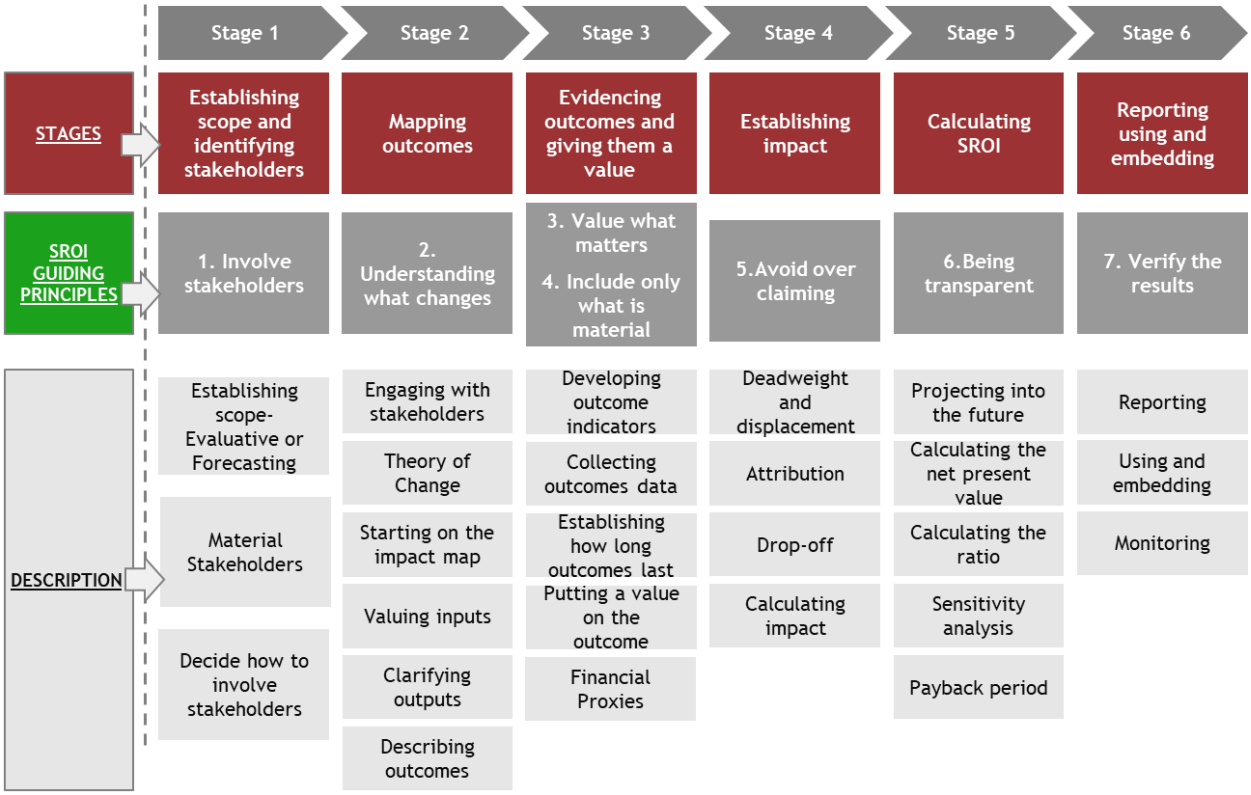
8.3 SROI methodology and process

In brief, SROI is an innovative methodology that is used to measure and account the socio-economic value created by an intervention. "It places a monetary value on the social impact (benefit) of an activity and compares this with the cost incurred in creating that impact. While this is a feature of any cost-benefit analysis, SROI is specifically tailored to the analysis of social purpose activities". SROI will enable it to understand how effectively THF has used its capital and other resources to create value for the community. It will also provide insights to THF to improve program management through better planning and evaluation. Further it will increase THF's understanding of its effect of the program on the community and allow to better communicate the value it generates thereby to both internally and external stakeholders.

The study examines THF's key investments, and the socio-economic value created by each of these programs on the respective stakeholders. This study will utilize the latest updated "A Guide to SROI (2012)"[11] by The SROI Network quantifying the social impact created by the project. The illustration below depicts the principles, framework, and analysis stages:

[11] https://www.socialvalueint.org/guide-to-sroi

Figure 81: SROI framework: Scope It; Map It; Track It; Tell It; and Embed It



TTC designed a detailed SROI evaluation framework consisting of relevant parameters for investigation and mapped out relevant stakeholders and corresponding questions. This framework served as the singular tool for gathering of information from secondary and primary sources, carrying out relevant analysis and development of suggestions. The evaluation framework, parameters, and probe areas were also finalised in consultation with the THF team.

Identifying stakeholders

A list of key stakeholders was prepared based on discussion with the project managers at THF and N. M. Sadguru Water and Development Foundation. The list of stakeholders was further refined based on materiality assessment within the project context and considering the data availability for those stakeholders under consideration. Structured interviews and focus group discussions (FGDs) was carried out with identified stakeholders. The area of assessment/enquiry with each prioritized stakeholder groups were as follows:

Figure 82: Stakeholder list and their interactions

Stakeholders	Mode of interaction
Farmers/ Beneficiaries	Focused Group Discussions/Questionnaire schedules
Family members	Focused Group Discussions/Questionnaire schedules
Community	Focused Group Discussions/Questionnaire schedules

Mapping Outcomes

Built the impact map as per the information shared by the stakeholders and through secondary research. THF's investment (costs/ inputs) to the Livelihood Enhancement Programs and the resultant outcomes of this investment to the stakeholders were mapped.

Identification and Valuation of inputs (investments)

The main value of inputs considered in this study is time, effort, and investment during the project period of 2017-2019 for the primary stakeholders i.e.,

Figure 83: Investment in each district and the total

Location	Budgeted (INR)
Jhabua	6.68 Cr
Banswara	5.62 Cr
Jhalawar	2.86 Cr
Overall	**15.17 Cr**

Theory of Change (ToC)

A clear and well-defined understanding of the change experienced by stakeholders is key for an effective SROI analysis of THF's investment (costs/ inputs) to the Livelihood Enhancement Programs. The change needs to be articulated and evidenced. This was achieved through extensive literature search, focus group discussions and interviews with professionals and analysing the questionnaires.

Figure 84: ToC of THF's livelihood enhancement programs

Stakeholders	Inputs	Activities	Outputs	Outcomes	Overall impact
Farmers	▪ Time ▪ Effort	▪ Agricultural production ▪ Vegetable cultivation ▪ Floriculture ▪ Seed production ▪ Vermi composting ▪ Kitchen gardening ▪ Animal husbandry	Number of farmers reported an increase in income	Percentage/amount of Increase in income	▪ Increase in income of the farmers ▪ Increase in employment ▪ Better living standards of the people ▪ Water conservation in the drought

Stakeholders	Inputs	Activities	Outputs	Outcomes	Overall impact
Family members	▪ Time ▪ Effort	Increase spending on education and health of their children	Number of family members reported an Increase in spending of Income due to benefits derived from the program	▪ Increased spending on health ▪ Increased spending on education	prone regions
Community	▪ Time ▪ Effort		Decreased migration	Increase in the income spent locally	

Evidencing outcomes and valuing them

Next stage in the process is to develop the indicators for outcomes. The indicators need to be measurable and form the basis for SROI evaluation. Indicators were developed from ample literature of previous similar studies and standardized databases. Financial proxies are then assigned to value these indicators. This are obtained directly through stakeholder consultation, or indirectly through secondary research. The outcomes, indicators and financial proxies used in this study are detailed below.

Figure 85: Outcome, indicators, and financial proxies of THF's livelihood enhancement programs

Stakeholders	Outcomes	Indicators	Financial Proxies
Farmers	Increase in income	▪ Change in the income level of farmers due to THF's Livelihood enhancement programs	Average annual increase in income Amount of reported by farmers through structured questionnaires and FGD's with THF and other implementation partners
Family members	▪ Reduction in health expenditure ▪ Increase in expenditure for education	▪ Increased spending on health ▪ Increased spending on education	▪ Number of members reported an increase in spending on health and the average health care spending derived from secondary data pertaining to rural India

Stakeholders	Outcomes	Indicators	Financial Proxies
			▪ Number of members reported an increase in spending on health and the average health care spending derived from secondary data pertaining to rural India
Community	▪ Increase in local income and spending by the return migrants	▪ Amount of increase in local income and spending by return migrants	▪ Average annual remittances of the return migrants in the region derived from the secondary literature

Establishing impact

To depict the accurate unique value created through the investments made by THF towards the livelihood enhancement programs, SROI valuation filters are applied to the financial proxies. This is in accordance with the SROI principle of not over claiming. This principle requires reference to trends and benchmarks to help assess the change caused by the activity, as opposed to other factors, and to take account of what would have happened anyway. It also requires consideration of the contribution of other people or organizations to the reported outcomes to match the contributions to the outcomes.[12]

Deadweight: This helps estimate how much of the change would have happened without THF's investing for livelihood enhancement programs. Stakeholders were asked to estimate the degree to which they believe the change would have occurred in the regular course and a percentage of deadweight were assigned.

Displacement: This is another component of impact and is an assessment of how much of the outcome displaced other outcomes. Stakeholder consultations as well as the farmer's database was used to identify if any of the outcomes will displace other activities.

Attribution: Attribution estimates how much of the change was a result of other organizations, stakeholders, or activities. Attribution is calculated as a percentage. An understanding of the contribution of others to each outcome was determined through stakeholder interviews.

Duration and Dropoff: Duration refers to how long an outcome lasts for. From the stakeholder consultations, the impacts which can drop off over the period under consideration was determined.

12 http://www.socialvalueuk.org/app/uploads/2016/03/SROI-Principles_singles_28A.pdf

The study utilises the SROI tool and the instructions for assigning these filters by the Social Value International.[13] The SROI valuation filters applied, its assumptions and rationale for using those for this study is presented below. These assumptions were also tested using sensitivity analysis to test the robustness of the results derived.

Figure 86: Outcome, indicators, and financial proxies of THF's livelihood enhancement programs

Indicators	Deadweight (percent)	Attribution (percent)	Duration and Dropoff(percent)
Increase in income	The responses of stakeholders about the change would have happened without THF's investing for livelihood enhancement programs were collated and averaged it out. Using those inputs, a deadweight of 50% deadweight were assigned for all the indicators and all districts.	Considering the investments of other doners revealed from the primary data collection and evaluating the percentages of investment by THF in each district, attribution rate of 50% was assigned for Jhabua and 75% rate was assigned for Banswara and Jhalawar	From the FGD's and stakeholder consultations the period which outcomes can last were determined and a moderate 25% dropout rate was assigned for all indicators and for all districts
Increased spending on health			
Increased spending on education			
Amount of increase in local income and spending by return migrants			

Calculating SROI

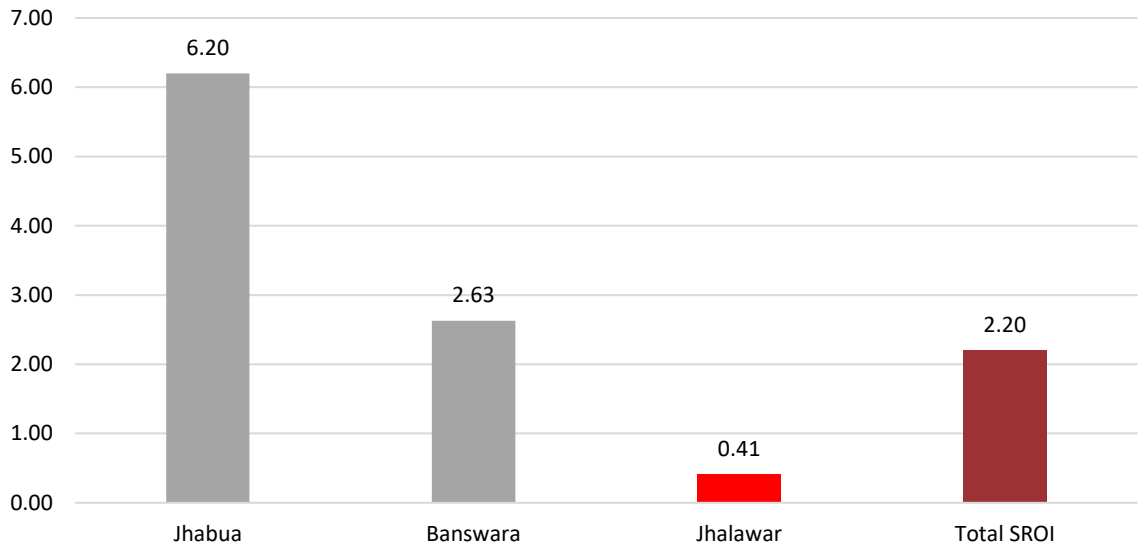
After applying all the SROI valuation filters, the impact of each outcome was calculated, which is quantity times the financial proxy, less the filters assigned prior to the calculation of SROI ratio. To calculate the SROI ratio the value of outputs is divided by the value of investment (inputs)net present value (NPV) the costs and benefits paid or received in different time periods need to be added up. The study utilises the SROI tool (automated) and the instructions for the same by Social Value International.[14] The calculated SROI ratio of the investment of the investment of THF towards the livelihood enhancement programs amounts to:

Figure 87: SROI ratios of THF's livelihood enhancement programs

13 A guide to Social Return on Investment, 2012(page no: 53-63)

14 A guide to Social Return on Investment, 2012(page no: 65-68 and 105)

Districts	Value of outcomes/	Value of inputs	SROI Ratios
Jhabua	41,389,621	6.68 Cr	6.20
Banswara	14,800,229	5.62 Cr	2.63
Jhalawar	1,164,572	2.86 Cr	0.41
Total impact of the programs	**33,360,154**	**15.17 Cr**	**2.20**



The ratios shows that each unit of currency invested by THF towards livelihood enhancement programs, has the potential to generate 6.20 units worth socio-economic value for stakeholders in Jhabua, 2.63 in Banswara against the investments in each district which represents how the farmers benefited through their monetized value of increase in earnings, increased health and education expenditure to the family members and the increased income and spending for the community from the return migrants. Whereas Jalawar generated only 0.41 units for the one unit of currency invested. The overall programs were able to generate 2.20 units across the districts.

Insights and recommendations

This SROI exercise conducted to analyse the impact of THF livelihood enhancement programs to assist the farmers establish that THF has been successful in creating a positive impact on the stakeholders involved in the program. The study reveals that for every unit of currency that THF has invested has the potential to generate an overall impact of 2.20 units worth of socio-economic value for stakeholders. The major outcomes considered in the study are the benefits received by the framers in the form of increase in the income due to the increase in production, productivity of crops cultivated and due to the cattle retention; the family of the framers also reaps

the benefits in the form of increased health and education expenditures parted for the children; the community is also benefited because of these programs through the form positive domino effect created by the return migrants local money multipliers. Throughout the analysis process it has becomes clear that the programs create more value than measured in the analysis. Especially the families of the participants experience many positive effects from the program, which are not considered in the analysis. The study was also not able to capture the environmental positive externalities created by the program such as the reduction in soil erosion due to the lack of micro level studies specific to the project(s). Considering and including these positive social values can further enhance the social value created by the livelihood enhancing programs of THF.

Section 9

Sustainability and Key Considerations

9. Considerations for the way forward

This section focuses on providing the strategic and operational considerations for the sustainability of the project

9.1 Key observations on sustainability

The key observations and certain considerations for the way forward are shared below:

Institutionalization & human capital

As the goal of project, it has succeeded in creating a knowledge base for improved cultivation techniques. Farmers have adopted an improved package of crop practices. This has resulted in increased yield and agricultural income. The continued use of the new techniques will ensure the program's long-term viability.

However, it was observed that to continue the use of better - quality seeds which were shared under the project, the farmers are relying upon local markets. This has contributed towards an increased cost of cultivation for majority of the beneficiaries. Thus, the mechanism to ensure the sustainability and long-term accessibility of the required inputs for the improved PoPs such as seeds, compost was not in place, and post the completion of project the beneficiaries did not have access to the current/ latest knowledge related to PoPs.

The community resource persons (CRPs) are other agents for change. As observed in the project, only a few CRPs were retained after the exit of the project. The community is still dependent on Krishi sevaks for any information regarding agriculture and farming. The CRPs could emerge as a source of technical inputs for farmers.

Recommendations:

The project team can look into formation of Farmer Producer Organisations (FPOs) or strengthening of the existing FPOs if any, to ensure availability of better-quality seeds, compost and other required inputs at minimum prices.
Further, a cadre of Common Resource Persons (CRPs) could be continued which would support the farmers in accessing the required knowledge through a single source and it would reduce the dependency on the government sources such as KVKs.

Govind Singh
PRI member, Bedla, Jhalawar

Govind Singh is the sarpanch in Bedla, Jhalawar. He joined NM Sadguru as a community resource person in early 2000s. Having built a rapport with NM Sadguru team, when the project was being implemented, he was considered for the position of block coordinator. He served as the block coordinator of the project for two years from 2017-19. He was responsible for identifying and deploying the CRPs, developing the implementation strategy, providing handholding support to CRPs as well as daily monitoring and reporting of data.

For his experience with NM Sadguru and this project he said "I have worked with NM Sadguru for 18 years now and everything I know, from community mobilization, government lesioning and communicating with beneficiaries I have learned from them. These learnings and skills have come in handy today as I work as a people's representative. My work with community has also built their trust on me and I am able to work with a little more flexibility today. All thanks to this project and NM Sadguru for providing me with the opportunity."

Creation of structures for access to water for irrigation

Water structures built for the project are likely to have increased the amount of irrigated land. This has resulted in an increase in the number of crops and a shift in the water table. Other water-related interventions, such as well deepening and lining, have been welcomed by the community and are said to have had a positive impact. Although, the community's involvement in these interventions has instilled a sense of ownership in the beneficiaries, however, the roles and responsibilities of the community for the maintenance of the structures created under the project are not well defined. Further, it was observed that the community has not been capacitated for managing conflicts that may arise.
It was also noticed that the realization amongst the community members for efficient and effective management of common resources created/ enhanced under the project such as water was not found

Recommendations:

The project could strengthen or create Water User Groups and capacitate them on conflict management along with outlining the roles and responsibilities of the members for operations and maintenance of the structures. In addition, the project team should look into developing a sense of responsibility amongst the community members for utilizing the common resources through activities like water budgeting.

Demand forecasting

The water related infrastructures created under the project have increased the availability and accessibility of water in the project locations. However, the interventions were unable to forecast the demand. Although the interventions increased crop yield, they also increased need for irrigation. It was noted that the project(s) was unable to keep up with the rising demand and did not consider the seasonal availability of water. There is still an unmet and incremental need for water in the community, and it remains the primary demand.

Recommendations:

The project should be designed in a way that the future demands of the community are also taken into consideration for a long-time viability of the interventions. Further, interventions on water efficiency techniques such as drip irrigation also need to be scaled up.

Improving current processes like beneficiary selection

Beneficiary identification and selection is a key activity of the project. By ensuring proper identification and selection of beneficiaries, the project team can be sure that all the communities of the village have been covered under the intervention. The implementation team currently identifies and selects beneficiaries based on the consultation with LI committee members who identify and select the beneficiaries.

Recommendations:

To ensure coverage of equitable benefits to all, the implementation can develop SOPs with criterions mentioned for beneficiary selection. These standardized SOPs will ensure all three locations followed a standard process for beneficiary selection

Village and Resource mapping

To build an understanding about the ecosystem of the village pre and post the project, the research team carried out village and resource mapping with the beneficiary groups of several villages. The tool was administered to get a holistic understanding of the project impact. The discussions helped in developing a resource map of the village which incorporated the location of agriculture land, residential areas, water resources, wells, hospitals, schools etc.

The mapping tool was further utilized to acquire information regarding the impact of the project on the accessibility of water for different beneficiaries, the availability of water in different wells of the village as per the varying altitude of the village, the availability of water in different seasons etc. Detailed probing was also done to note the package of practices of the farmer groups and the changes that were introduced under the project. The discussions around the mapping tool revealed that the general availability of water has improved in the project area due to the interventions carried out under the project. Further, the new package of practices, shared by the project team are being implemented by majority of the beneficiaries which has enabled the farmers to take a second crop along with shifting towards high value and water intensive crops. Although, the project has an overall positive impact on the water resources and agricultural productivity of the region, the resource maps aided the project team to observe that impact is far greater for the beneficiaries nearer to the water bodies/resources. Distance and topographical variations have contributed towards the non-uniformity of impact on the village level as the wells farther from the water resource would dry up faster which affected the type and intensity of the crops grown in that part of the village.

Hence, it was observed through the mapping tool as well as focused group discussions, that even though the project design took into consideration the regional level variations in the landscape, the village level and beneficiary level need assessment required further strengthening.

Diversification of livelihood opportunities

Vegetable farming, horticulture and floriculture has provided the community with promising economic opportunities. Market-oriented vegetable cultivation has also aided in the development of resilience. Farmers' vulnerability to production risks has been reduced by the diversification of the cropping pattern. The potential opportunities have particularly piqued the interest of young people. It has also had a nutritional impact on the community. However, the beneficiaries for these interventions are very limited. It was observed on field that farmers on attending exposure visits have incorporated floriculture and horticulture in their own practices that has provided them with an alternative livelihood option. But this was only limited to a few beneficiaries.

Recommendations:

The project team can look at strengthening the project(s) offerings through helping the community practice horticulture in a systematic way. Short- or long-term vocational trainings in horticulture can get higher production on farms. The project team(s) could establish a system to organize frontline demonstrations on various crops to generate production data and feedback information. Further, floriculture can be explored as a livelihood alternative as there is demand and market available for it.

Innovative and risk-taking farmers

The results of project interventions such as field demonstrations and exposure visits have inspired farmers to implement suggested practices in their own fields. This has resulted in the identification of village leaders who have initiated cross-learning with other farmers Beneficiary farmers have consistently emphasized their willingness to innovate. There has been a shift in perception regarding the adoption of new techniques, allowing farmers to take risks. This shift in attitude will go a long way toward ensuring the project's long-term viability.

Gender inclusive project design

Women contribute significantly to the agricultural and rural economies. Rural women frequently manage multi-generational households and seek multiple sources of income. However, the project did not incorporate a gender lens into its design. There were no other interventions aimed specifically at supporting or empowering women beneficiaries, aside from the fiber sheet and kitchen garden interventions. The goal of the fiber sheet intervention was to provide enough light for the kitchen of a house,

which is normally compromised due to a lack of ventilation and the activity was designed specifically for women beneficiaries in Jhabua.

Recommendations:

Women can be included as key beneficiaries in the project. The project team should investigate the role of women in the cropping system and include elements in the project that work to increase women's participation. It can also work with other organisations to develop a gender-inclusive project design and work on women's economic and social well-being.

Value chain approach

Emphasis on crop or vegetable value chain was not given under the project design. Farmers could expand their profits from multiple potential markets if solutions were found for value chain issues such as:

- Poor quality/high cost of seeds and varieties in the market
- Poor quality of product at harvest, with grains of inconsistent size and coloration
- Agriculture credit
- Insufficient market development and communication with markets regarding varieties and quality desired

Recommendations:

- The project locations can use e-portals like e-NAM portal and e-MITRA's (in Rajasthan) to facilitate the farmers for on-line trade of the aggregated produce and avail the benefits of transparent online trading on e-NAM like platforms for a remunerative price through better price discovery.
- The program should study the supply value chain for different agricultural produce including vegetables and establish linkages with off-taker companies rather than just be dependent on Mandi's for business.
- The program team could explore this model of market linkage. They should study other market linkage models by other organizations to get ideas and explore the possibilities.

Linkages and convergence

The project has collaborated with various stakeholders including contributions from government and beneficiaries such as the biogas initiative, lift irrigation schemes, soil

testing activity etc. However, there is still a scope to leverage and collaborate with several other agriculture and irrigation-related schemes.

Recommendations:

Partnerships for the goals are an important component of the Sustainable Development Goals. A successful development agenda necessitates inclusive partnerships at all levels – global, regional, national, and local. Several government programmes could be further used to benefit the project. PM Kisan Samman Nidhi, Kisan Credit Card, Soil Health Card, Rashtriya Krishi Yojana, Bima Yojana, The Vikas Yojana and PM Fasal, are a few of these schemes.

Chokhwada - Jhabua

Various tools and activities were administered to engage the beneficiary groups in a manner in which they feel comfortable to share the required information. One such activity was conducted to understand the relevance of the project interventions against the needs of the beneficiaries and effectiveness of the project to address the same. The activity further shed light on the extent to which the needs of the community were addressed through the project and also on the aspects that were partially addressed and those that remain unaddressed.

The research team drew the five basic needs of the community on white papers and kept in front of the beneficiaries. The needs that were drawn were water, livelihood, food, shelter, and soil. Post which each member of the respondent group was asked to put a stone on the paper for which they were supported under the project. 80% of the members selected water and soil while the rest chose livelihood. In the second part of the activity, each member was asked to place a stone on the aspect on which they still require support. Around 40%-50% beneficiaries shared that there is still an unmet demand for water resources, 30% beneficiaries expressed their needs for diverse livelihood and around 10% beneficiaries shared that there is a need for better soil for cultivation.

Through the activity, it could be concluded that even though the project has strived forward and has responded positively to the needs of the community, there is an unmet and incremental need for water in the community which may be due to an increase in aspirations and lack of awareness on water management concepts such as water budgeting. There is still potential to work on increasing the water efficiency practices in the future through various methods like drip irrigation and water budgeting etc. Further, diversification of livelihood through interventions

such as horticulture and floriculture can be implemented on a wider scale as the community is receptive of alternate cultivation practices.

Capacity building and community leadership

The impact of on-field demonstrations, trainings and exposure visits is visible in the larger community. It is noted that the lead farmers are a critical backbone of the project delivery model, and they perform key roles in the project. However, it was observed that the project team could invest more towards working with community leaders to enhance the project outcomes.

Recommendations:

- The existing capacity of community resource person and leader farmers can be strengthened further in terms of understanding the supply value chain and should be introduced to better package of practices.
- The project could create mechanisms for peer-to-peer learning with incentivization for lead farmers. This could expand on cross learning and knowledge creation for all farmers

Contextualization of IEC

The project design did not incorporate the literacy rate of the project villages; hence it can be assumed that capacity-building interventions such as the creation and distribution of IEC materials and wall paintings had no effect on beneficiaries who were illiterate

Recommendations:

The project could use an audio-visual mechanism to share knowledge material, eliminating the need for beneficiaries to read. It would also aid in the proper registration of the information. IEC audio-visual aid material in the regional language would have had a greater impact.

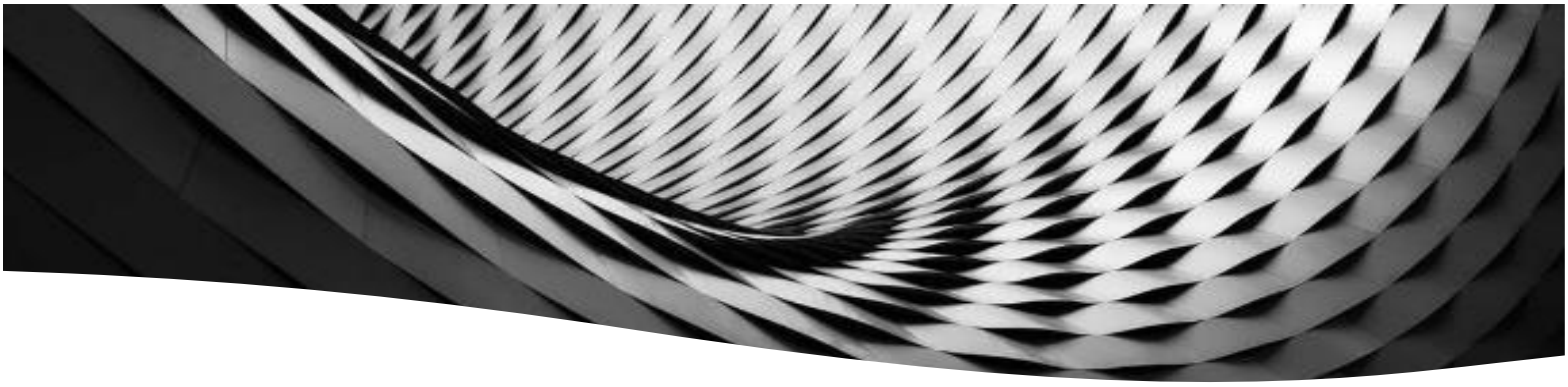
Institutional learning and documentation

The implementation partner adopted differing implementation structures in the three locations. It was observed on field that there is a variation in the ratio of villages to CRPs for all three locations. The number of CRPs for the project were engaged on the availability of local resources. Other processes like monitoring and reporting were location specific. The exit plans for the project were not available.

It was further observed there was no cross learning or exchange of success stories between the three locations.

Recommendations:

- Development of a strategic framework with quantifiable project objectives in consultation with key stakeholders
- Development of SOPs for project implementation, right from planning to delivery stage that is common for all locations. The SOPs may be developed for needs assessment, reporting and documentation, standard learning outcomes from beneficiaries.
- Setting of KPIs and targets for outputs (like increase in household income by INR xxx) and outcomes as well as development of M&E framework with standard indicators for outputs, outcomes, and impact along with a set of frequency for reporting for all three locations.
- Standardization of reporting format, frequency and language across all locations for comprehensive monitoring and evaluation.
- Ensuring cross learning among three locations and incorporation of best practices of each into the implementation plan, through periodic meetings.



Thank you

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