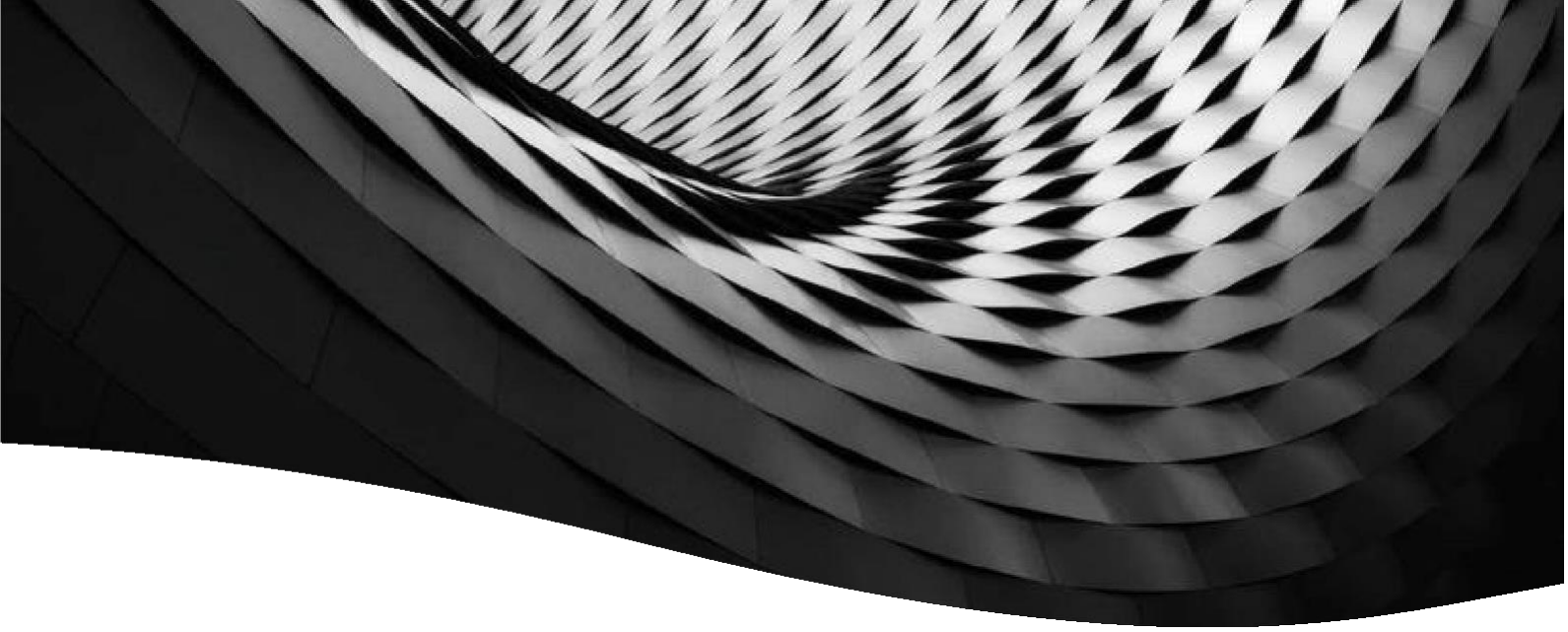


Programme Monitoring Report

Sustainable Environment & Livelihoods through Soil & Water Conservation and Improving Soil Health

Self-Reliant Initiatives through Joint Action (SRIJAN)

Year 3: Quarter 4 (May'22- July'22) & Project Closure Report

TTC connecting ideas for impact

Thinkthrough Consulting

Contents

1. Project charter

Project charter	
Thematic area	Environment and Natural Resource Management
Name of the organization	Self-Reliant Initiatives through Joint Action (SRIJAN)
Project title	Sustainable Environment & Livelihoods through Soil & Water Conservation and Improving Soil Health
Project Area	Block: Sapotra and Mandrail; District: Karauli; State: Rajasthan
Project Period	3 years (August 2019- August 2022)
Proposed coverage	Villages: 76; HH (Direct): 3915; (Indirect): 20000
Project Goal	To demonstrate a community-centered inclusive environment through adoption of conservation and management of land and water resources and smart agriculture practices.
Key objectives	1) To improve the land quality and augment water through the demonstration community-driven soil and water conservation methods 2) To demonstrate methods of regenerative and climate-smart agriculture practices having potential to improve land quality and improve land productivity 3) To demonstrate water conservation technology and improve water productivity 4) To demonstrate methods of de-risking agriculture through diversification of production system 5) To enhance community capacity for effective management and conservation of resources for a sustainable environment and livelihoods
Total budget for year 3	INR 19,957,791 (NSEF Contribution)

2. Reporting period under review

Reporting period under review	
Year 3: Quarter 4 (May'22 – July'22)	
Quarterly progress report received on (Date of receiving complete information)	12th of September 2022
Project closure report received on (Date of receiving complete information)	12th of September 2022
Mode of review (Desk/Field)	Field and Desk review
Field review conducted on	29th September 2022 – 1st October 2022, 10th October 2022 – 11th October 2022
Date of submission of the review report	10th of November 2022
Focus of review	Progress reported at the end of Quarter 4 and overall project closure
Report prepared by	Yogesh Gupta /Aashi Srivastava

3. Project background

NSE Foundation and SRIJAN entered into a grants agreement (MoU) to implement NSE's CSR Project to demonstrate a community-centered inclusive environment Sapotra and Mandrail Blocks of Karauli district by inculcating sustainable environment and livelihoods through soil and water conservation and improving soil health.

Key objectives of the project are as follows:

1) To improve the land quality and augment water through the demonstration of community-driven soil and water conservation methods
2) To demonstrate methods of regenerative and climate-smart agriculture practices having the potential to improve land quality and improve land productivity
3) To demonstrate water conservation technology and improve water productivity
4) To demonstrate methods of de-risking agriculture through diversification of the production system
5) To enhance community capacity for effective management and conservation of resources for a sustainable environment and livelihoods

The project was implemented in 15 Gram Panchayats covering 76 villages of Sapotra and Mandrail Blocks, Karauli District, Rajasthan aiming to reach 3,915 direct beneficiaries and 20,000 indirect beneficiaries through the project time of three years.

4. Methodology

This section outlines our methodology for quarterly PME review.

Scope of the review

1. Reviewing the monthly, and quarterly reports, project closure report, and monitoring data shared by implementation partner
2. Mapping and reviewing key means of verification (documents) for activities reported by the partner
3. Identifying the areas that require field verification and validation (programmatic as well as financial)
4. Undertaking field visits and engaging the local stakeholders through appropriate tools (FGDs, KIIs, IDIs, site observation visits, etc.)

Focus of the review

1. To assess the impact of the project recognized by the community
2. To assess the change in behavior among the village community towards the adoption of project interventions
3. To assess the adaptive capacity of farmers towards climate resilience
4. To monitor the progress of project activities against the targets
5. To understand the follow-up action taken by SRIJAN on PME recommendations during the previous quarter of the field visit
6. To assess the status on strengthening of the Village Development Committee

Information triangulation

The PME review findings are formulated using a triangulation approach, i.e., analysis of information collected from a.) project documents/means of verifications submitted by partners (Finance and Program), b.) discussions with the project team (implementation & top management) on progress as well as observations and c.) site visits for stakeholder interactions. The general coverage of desk

and field review is;

- *Desk review:* Assessment of Quarterly Progress Report, Annexure A, Means of Verification documents, and telephonic review.
- *Field review:* The field review primarily includes a field visit to key project sites and interactions with key stakeholders. PME has visited a total of 15 villages which cover approximately 1200 beneficiaries and all interventions.

Sampling

Purposive sampling was used for the selection of villages based on the following criteria:

1. Villages that were not covered earlier by the PME team in year 3
2. Representation of Villages from all clusters
3. VDCs performing with all types of grading
4. Villages where most of the project interventions have been implemented

Name of Tools	Number of Villages	A sample size
FGD with VDC	6	6
FGD with beneficiaries to assess behavioral change and adaptive capacity	6	6
Site Observation visit of physical interventions	15	28
Types of physical interventions		7
IDI	12	23

5. Project status

S. No	Indicators	Total Target	Total Achievement	Year 1		Year 2		Year 3	
				Target	Achievement	Target	Achievement	Target	Achievement
1	No of the VDCs formed	76	74	45	51	25	22	1	1
2	Environment Day	3	3	1	0	1	0	3	3
3	Exposure of VDCs	8	11	5	5	3	3	2	3
4	Training of VDCs on VDPs	12	15	7	13	3	0	2	2
5	Training of VDCs on Land & Water Resources and CPR	4	2	1	0	2	2	2	0
6	Soil and Water Conservation through land treatment (Area in Ha.)	5400	5105.94	900	1127	2700	2069	2204	1909.94
7	Creating Water Harvesting Potential (Cum.)	425000	1649297	100000	200694	225000	792200	100000	656403
8	Pasture Development (Area in Ha.)	300	12.5	20	12.5	0	0	25	0
9	Demonstration of Regenerative Agriculture Practices (No farmers)	3000	2921	1000	1520	1300	609	1000	792
10	Training on sustainable agriculture	70	72	08	11	12	58	3	3
11	Field day organized	18	18	03	0	6	4	14	14

S. No	Indicators	Total Target	Total Achievement	Year 1		Year 2		Year 3	
				Target	Achievement	Target	Achievement	Target	Achievement
12	Establishment of Fruit Orchard (Area in Ha.)	50	73.95	15	14.5	70	47.8	20	11.65
13	Organic Vegetable (Area in Ha.)	100	121.32	30	0	50	45.64	54.5	75.68
14	Mini Sprinkler/ Drip Irrigation (Area in Ha.)	100	154	0	0	60	104	60	50
15	Demonstration of Solar Irrigation Pump (No of units)	15	14	0	0	2	2	13	12
16	Training in Farmer Producer Organization	0	1	0	0	2	0	2	1
17	Block-level workshops	2	0	1	0	1	0	2	0

6. Observations and recommendations

S. No	Activities	Status reported by SRIJAN	PME Observation	Recommendation
1	Community institution-building – Village development committee (VDC)	• 74 VDCs have been formed in 76 villages and a total of 4,028 members covered • 84% of members are male and 16 % are female • 38 % members belong to ST category followed by 33% (OBC), 17 % (SC),11% (Gen) • Total fund generated from membership fees is INR 4,53,900/- • VDF reported at INR 13,48,660/- • All 74 VDCs werere-graded in thereporting quarter • 22% of the VDCs received A, 58% of VDCs receivedB while 20% received grade C • Account opened for 17 VDCs • Five VDCs are currently defunct • Total corpus generated at VDC is INR 18,02,560 • Cash spent through VDF in last	• INR 8.5 lakhs is the unspent amount with the VDCs for which SRIJAN has received proposals and the activities will be completed by Mar'23 • In the previous report, PME had recommended SRIJAN to ensure opening of bank accounts and utilizing 100% community contribution. While INR 8.69 lakhs of VDF has been spent on community works, however, the transparency of the mechanism followed is not evident as SRIJAN did not submit any hand over certificates or community resolutions on the same • 15 VDCs could not spend their fund because in majority of these VDCs, fund was below INR 1000 due to which no relevant intervention was possible • 41 out of 74 VDCs spent approximately INR 1.53 Lakhs on purchase of stationery, VDC box, dari and board • Many VDCs spent VDF on routine expenses like transportation costs for purchase of agriculture inputs and traveling • Five VDCs used VDF to conduct an exposure tour to KVK	• SRIJAN to ensure that the community members are apprised about the project completion and NSEF will not be responsible that any activity undertaken after July'22 • Under the light of its current community institutionalization and set SOPs, NSEF is recommended to suggest if these transactions are to be documented under the scope of the project

S. No	Activities	Status reported by SRIJAN	PME Observation	Recommendation
		quarter INR 8,69,484		
2	Augmentation of water recharge potential- Water Harvesting structure	A total of 16.49 lakhs cubic meters of Water Recharge Potential has been created through the construction and renovation of 115 Water Harvesting Structures	• 115 structures mainly serve the purpose of irrigation in agriculture, water table recharge, and improving the accessibility of drinking water to cattle and human beings • 733 Ha new area brought under irrigation • 475 families directly benefitting from the structures • WHS construction is the highest-rated activity in terms of the impact of the project on the community in all the villages • Out of 115, 7 are community structures, 68 are small groups (2-5 beneficiaries) and 40 are individual structures • Both types of works i.e., renovation and new construction considered • PME observed a few technical shortcomings which have been described in earlier reports in detail. During the current visit to Gurja, Teen Pokhar, and Shyampur, it has been observed that they are getting benefits from the structure but did not make any efforts to repair it. However, during the discussion, they confirmed to repair it at their own level in the future whenever required • At Manakhur village, one beneficiary informed that one WHS has been constructed under the project but approximately 2/3 of the total stored water was drained out due to leakage • PME did not find any active role of VDCs in O& M of	

S. No	Activities	Status reported by SRIJAN	PME Observation	Recommendation
			common structures • During the interaction with the community and IDI with 23 sample farmers, following impact was observed (***Annexure 1***): ○ Cropping intensity increased from 95 % to 171 % ○ New area brought under cultivation from 60.3 to 98 % ○ New area brought under irrigation from 64.2 % to 81.8 % ○ Water table of groundwater sources (wells) improved by 0.5 to 1 m ○ Community gets easy access to drinking water for their livestock around the year ○ Production and yield of major crops have been significantly improved	
3	Soil & Water conservation through land treatment	5,106 Ha area treated against the target of 5,400 Ha	• Field bund, pond silt application, and earthen pal were the three interventions covered under SWC. It has been reported that SWC works treated 5,106 Ha land which provided benefits to 1,645 farmers directly and 3,181 farmers indirectly • Field bund activity benefitted approximately 4,397 Ha area • During interaction with farmers (FGD and IDI), community informed that the field bund helped to reduce their erosion up to a major extent and maintain in situ moisture in the field which resulted in improving soil	

S. No	Activities	Status reported by SRIJAN	PME Observation	Recommendation
			fertility and crop yield • There were multiple instances noted that many field bunds were broken due to the non-availability of outlets • It was observed that SRIJAN constructed outlets in few fields after recommendations from PME • SRIJAN purchased a silt observation post (SOP) and proposed to measure silt prevented through SWC works and made other efforts to measure the soil prevented due to the project, but SOP could not be established by the end of the project, so calculation has been made based on empirical data	
4	Unproductive land brought under cultivation	1,004 Ha land brought under cultivation	• Ponds desilt application, earthen pal, and field bund were the major interventions to contribute to achieving the outcome of 1,004 ha of unproductive land brought under cultivation against a target of 2,100 Ha • These interventions also contributed to food and fodder security, reducing the purchase cost of Bajra, Wheat, and fodder and improving the income from the sale of surplus	
5	Additional area brought under irrigation	733 Ha additional area brought under irrigation	• 733 Ha area has been calculated based on the thumb rule of 750 cum volume of water for 1 ha area • SRIJAN did not share any data based on MIS of beneficiaries of the water harvesting structure	
6	Increased awareness of farmers on	• 71 % of farmers were aware of seed treatment	• PME organized FGD in six villages with beneficiaries of regenerative agriculture intervention, it was found that	

S. No	Activities	Status reported by SRIJAN	PME Observation	Recommendation
	improving soil health for sustainable agriculture production and decreased use of chemical fertilizer	• 55 % about line sowing • 87 % have a positive attitude towards reducing chemical fertilizer and adopting organic means • 2,921 out of 3,000 farmers have a medium to a high level of awareness	majority of the community reported adequate awareness on improving soil health • Soil test results of demonstrating farmers revealed that soil health has improved due to natural farming, but adoption status could not improve in the same proportion due to a lack of follow-up and a proper strategy to disseminate the message among the community in an effective manner	
7	The area brought under crop diversification – Horticulture	• 73.95 Ha total area brought under horticulture through 183 farmers • Survival rate is 81 %	• SRIJAN achieved 73.95 Ha under this activity against the target of 50 ha as MOU • SRIJAN promoted fruit orchards with objectives to provide alternate livelihood sources, address the issue of climate change, and increase green coverage • The target was revised from 50 ha to 105 ha considering the re-adjustment from the pasture development activity • As fruit orchard activity was taken for the first time among the community members and the beneficiaries wanted to wait for the produce before signing up for new fruit orchard activities which needs a minimum of 3 years, due to which demand for the activity was low • During the FGD and IDI, farmers informed PME that if the produce is good, they would go for the same activity again in the next cycle	
8	Demonstration of improved	• Total of 154 units covered a total area of 137.5 ha	• Results of the solar irrigation system are encouraging. During FGD with the community, it was observed that	

S. No	Activities	Status reported by SRIJAN	PME Observation	Recommendation
	irrigation technology - Micro irrigation system and Solar irrigation system	• 132 units from the project and 22 under convergence • Increased 1.2 % of net sown area • 14 units of solar pump cover 35 Ha • 7 from the project • 7 under convergence	farmers are very eager to adopt solar irrigation pumps and a few of them have already taken some steps in this regard like submitting necessary documents in the respective department • Beneficiaries of solar irrigation systems were not aware of the post-management. They were not trained by the company at the time of installation	
9	Pasture development	12.5 Ha is the achievement against the target of 300 Ha	• SRIJAN reported an achievement of 12.5 ha against the target of 300 ha. The activity could not be scaled up as the land in the Dang area were under agricultural encroachment (Gher technique used by villagers). This was communicated to NSEF/PME after which SRIJAN did not propose any new targets in Year 2 and 3 • SRIJAN proposed treatment of Gher structures under pasture development activities, however, due to unavailability of cash flow the activity could not be taken up • The approved budget was re-adjusted to the targets under Fruit Orchard activity	
10	Convergence	• Total convergence of INR 59.79 Lakhs from departments • Solar pump-7 units • Sprinkler-20 units • Drip-2 units • Onion storage -1	• INR 59.79 Lakhs (6.79%) have been leveraged from the horticulture department, KVK, and Gram Panchayat • Community contribution of INR 3.09 Cr (35.11 %) out of the total project expenditure of INR 8.80 Cr reported • Total of 11 out of 76 villages received the benefits of	

S. No	Activities	Status reported by SRIJAN	PME Observation	Recommendation
		• WHS-5 • Spray pump and seed-30 • Community contribution is INR 3.09 Lakhs	convergence • KVK provided a spray pump and bajra seed to 30 farmers in two villages • PME observed limited awareness of VDCs on various schemes and collaborating with various stakeholders to leverage the funds in the future • PME observed good rapport and coordination between VDC and Gram Panchayat in limited villages only • VDCs and their executive committee members reported limited skills in terms of their understanding w.r.t process of convergence from a government department and gram panchayat	
11	Enhanced water security	NA	• SRIJAN had proposed water budgeting at the village level but did not make any water security plan for any of the intervention villages • During community interaction, PME was informed that due to unawareness about right amount of available water for irrigation, lesser area was cultivated. As a general practice, water security can be enhanced by effective water budgeting exercise and provisioning of water security plan due to which larger area could have been covered for cultivation	
12	FPO	NA	• SRIJAN reported returning INR 1.03 lakhs of registration fees on the recommendation of NSEF/PME to 206 shareholders	

S. No	Activities	Status reported by SRIJAN	PME Observation	Recommendation
13	Instrument & Equipment	• Total station (1) • Rain gauge (8) • Silt observation post (1)	• Rain gauge has been installed at eight locations out which three rain gauges were found to be non-functional	
14	Innovation	NA	• Spatial mapping of the work done under the project by using GIS was proposed but not been taken up • Feasibility assessment and development of a scientific map to show the impacts of technical support and association with MPUAT was also proposed in Annexure A. However, no such intervention was reported by SRIJAN	

7. Project closure remarks

SRIJAN implemented the project '**Sustainable Environment & Livelihoods through Soil & Water Conservation and Improving Soil Health**' for 3 years from August 2019 to July 2022 in the Karauli district of Rajasthan. The project aimed to demonstrate a community-centered inclusive environment through the adoption of conservation and management of land and water resources and smart agriculture practices in the 76 villages of Mandrail block of the district. The major objective of the closure study was to understand the approach and strategy followed for the implementation of the project and the outputs achieved at the end of the project

Major findings

- SRIJAN has achieved approximately 95 % of the physical and financial targets and provided support to 3,419 families
- Major impact of projects recognized by the community during the interaction was waste/unproductive areas brought under cultivation, rainfed areas brought under irrigation, improvement in the number of irrigations, reduce top fertile soil erosion, demonstration of new technology like the use of organic inputs, solar irrigation, fruit orchard, trellis farming, etc. and improvement in awareness
- Pasture development is the only activity that has not been achieved

Village Development Committee

- Total of 74 VDCs were formed till the end of the project against which 17 VDC accounts could be opened. Total Village Development Fund received of Rs. 13.48 Lakhs out of which VDCs spent Rs. 8.69 Lakhs on various village level interventions
- Only 16% women participation was reported by the end of three years course of the project
- Despite various training, exposure, and other capacity-building efforts, the project could not enhance the capacity of VDCs so that they can run in the future at their own level to achieve the desired vision without the support of SRIJAN
- However, SRIJAN is still working in the project area and building its capacities for effective management and conservation of resources for a sustainable environment and livelihoods

Land and Water Development

- 1,004 Ha of land was treated through pond silt application and construction of earthen pals for 528 beneficiaries. Thus, the average increase in cultivable land is 1.90 hectares per beneficiary
- 469 direct beneficiaries benefitted through 115 structures constructed and renovated which created a water harvesting potential of 16.493 lakh cubic meters
- Percolation is another impact achieved which helps to improve the water table of 0.45 m of the project area groundwater sources
- In total, 1645 direct farmers benefitted through 5,106 Ha area treated in SWC Works

Agriculture

- Up to 10 % of farmers have adopted and started following regenerative and climate-smart agriculture practices having the potential to improve land quality and improve land productivity. More than 70 % of VDC members were reported to have awareness about the practice
- 74 Ha of land developed under fruit orchard activity by 183 farmers. As fruit orchard activity was taken for the first time among the community members and the

beneficiaries wanted to wait for the produce before signing up for new fruit orchard activities which needs a minimum of 3 years, due to which demand for the activity was low

- 121.3 Ha of land was covered under vegetable cultivation by 310 farmers. An average income of INR 47,000 per farmer was reported
- Crop yield increased between 12% to 48 % for various crops
- Cropping intensity has increased from 95% to 171%

Income

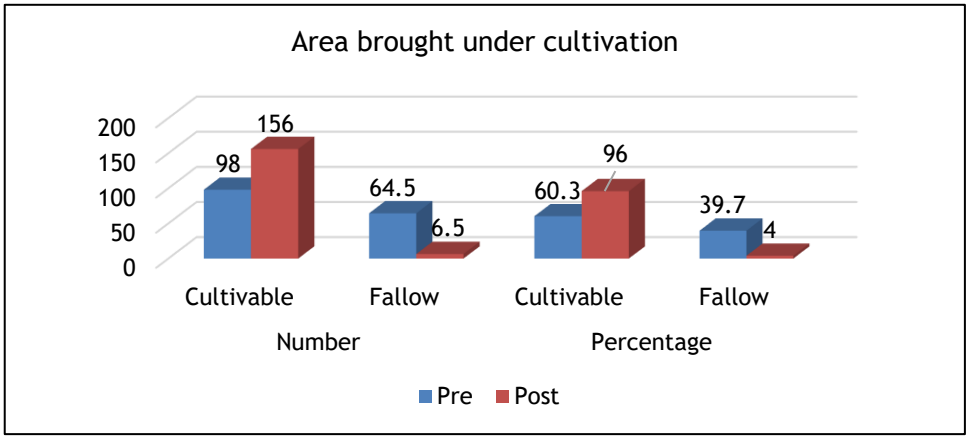
- Farmers' income from agriculture improved due to reduction in the purchase of food grain and additional production of crops

Annexure 1: Impact of Project – Positive Deviances of Project

- Total of 23 farmers were identified from 12 villages
- Farmers who have received benefits for 2-3 interventions were identified for the survey
- 15 farmers out of 23 were small-category farmers, followed by marginal (2), Medium (3), and Large (1)
- 8 out of 23 farmers were OBC, followed by ST (8), SC (4), and General (1)
- Total land with 23 farmers was 162.5 Bigha with an average land holding of 7 bigha
- WHS(Pokhar) and Borewell are the major sources of irrigation

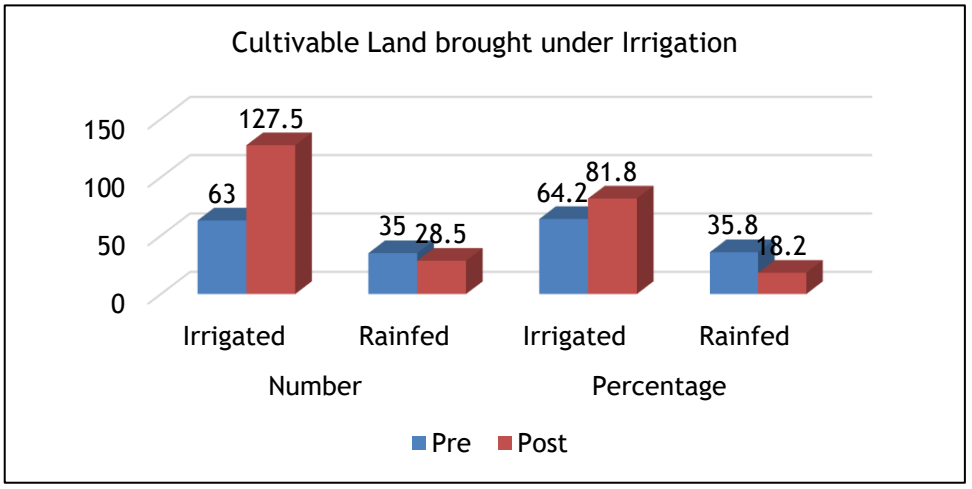
Impact of Project

1. Area brought under cultivation
   - 16 out of 23 farmers reported improving the area under cultivation due to project interventions pond silt application, field bund, Earthen Pal, and WHS construction
   - Average 3.6 Bigha land increased under cultivation from fallow/wasteland
   - Cultivable land has significantly improved from 60.3 % (98 bighas) to 96 % (156 bighas)



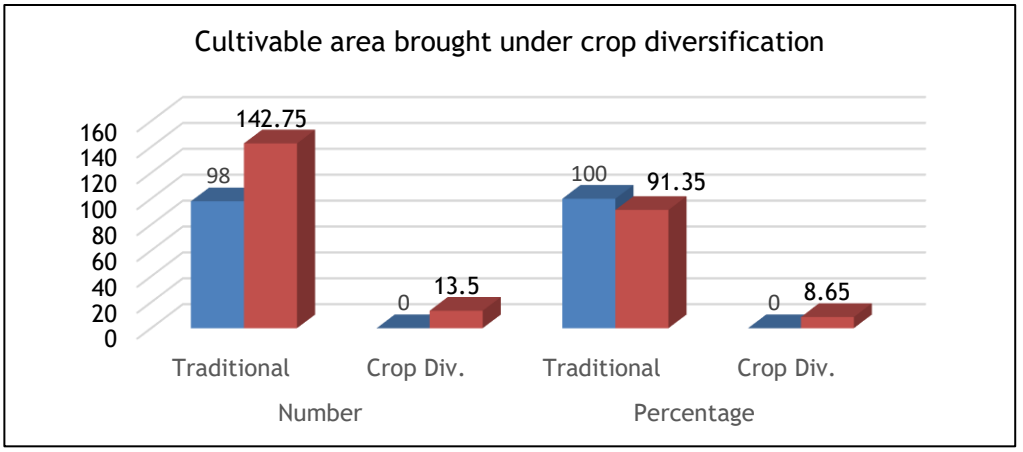
   - Project supported in treating 5,106 Ha of land and 1,004 Ha of unproductive land was brought under cultivation through SWC measures

2. Area brought under Irrigation
   - 18 out of 23 sampled farmers reported improving the area under cultivation due to project interventions' WHS construction
   - Average 3.58 Bigha land increased (convert from rainfed to irrigated)
   - Cultivable land has significantly improved from 64.2 % (63 bighas) to 81.8 % (127.5 bighas)
   - 11 out of 18 sampled farmers took first time Rabi crops for cultivation
   - Farmers reported having access to 1-3 more irrigation to crops due to WHS
   - Total of 16.49 cubic meter additional water storage capacity created by constructing 115 WHS



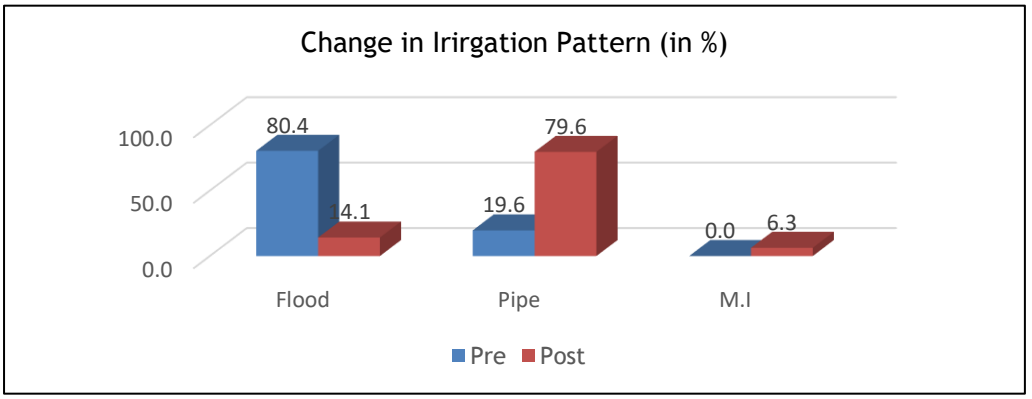
3. Cultivable area under crop Diversification

- 11 out of 23 sampled farmers started to fruit and vegetable cultivation in 13.5 bigha land
- This is the first time in project villages that a large number of farmers started Guava cultivation as a mitigation measure to climate change and an alternative livelihood mechanism to reduce the risk to farmers
- Total 74 Ha of land cultivated under fruit orchards and 121.3 Ha of land under vegetable cultivation has been covered under crop diversification



4. Change in Irrigation Pattern

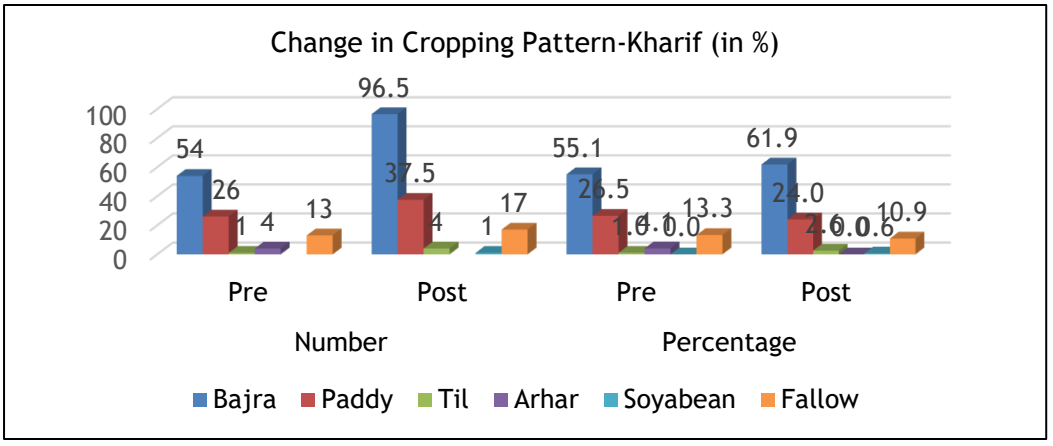
- Project helped to sensitize the farmers. Out of 23 farmers, flood irrigation reduced from 10 to 2 farmers, piped irrigation improved from 12 to 23, and sprinkler irrigation increased from 0 to 5 farmers
- Significant improvement in piped irrigation (60 %) reported
- 137.5 Ha area covered under micro irrigation which is providing benefits to 154 families



5. Change in Cropping Pattern

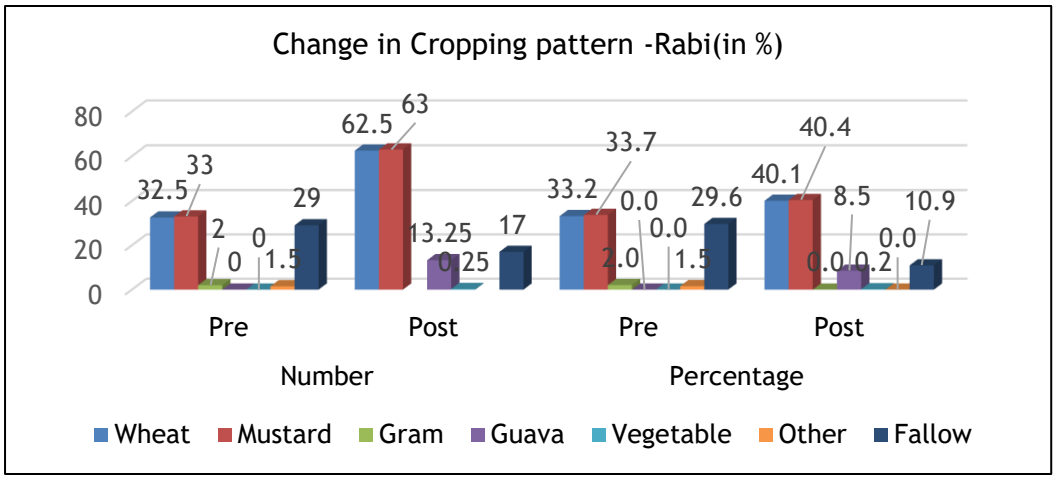
Kharif season

- Significant improvement of 63 % in the Kharif area (from 85 bigha to 139 Bigha)
- Marginal improvement in the cropping area of the Bajra crop (55 % to 61.9 %) and marginal reduction in fallow land

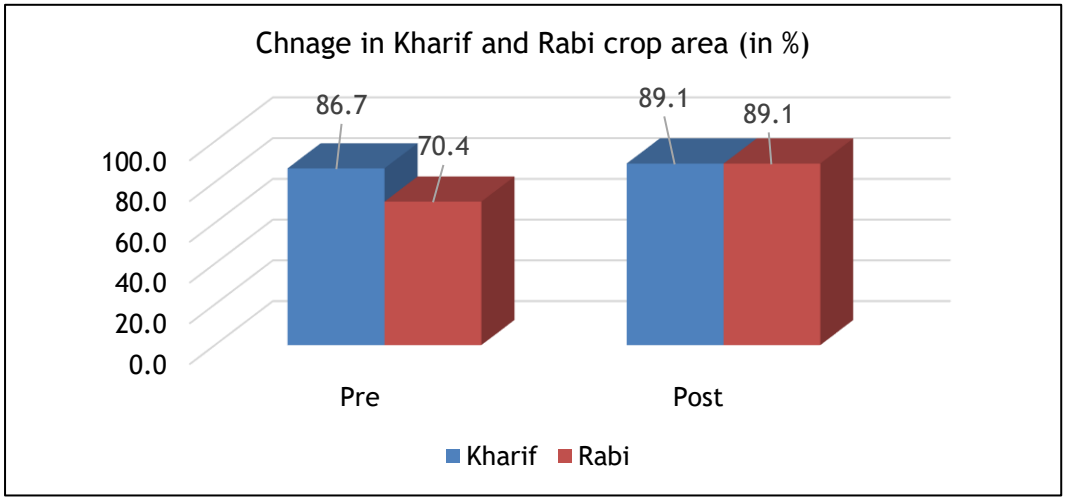


Rabi Season

- Improvement (101%) in the area (69 bighas to 139 bighas) under the Rabi crop
- Number of farmers increased from 16 to 20 farmers cultivating Rabi crops
- There is a marginal improvement of 7 % in the area for both Wheat and Mustard crop and for first time 8.5 % of the total cultivable area is brought under fruit crops



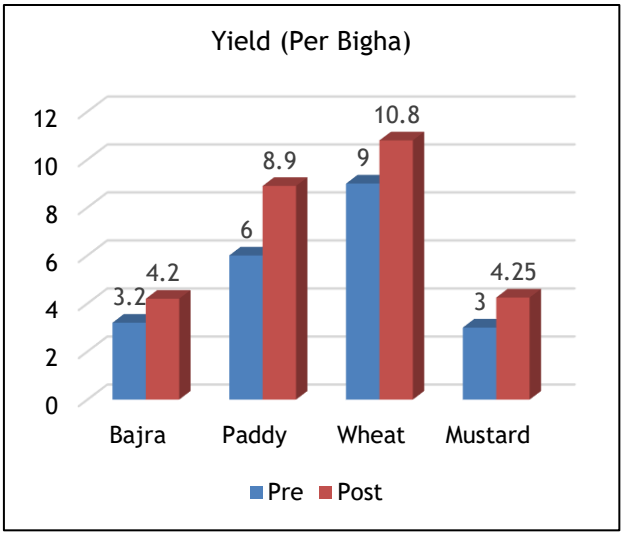
- Area under the Rabi crop significantly improved from 70 to 89 %. However, it has marginally decreased for Kharif crops
- It has been recognized that 29.6 % of Kharif and 10 % of Rabi cultivable areas were fallow due to uncertainty about the availability of volume of water in the WHS, and many farmers who cultivated mustard crops did not take up any crop during the Kharif season

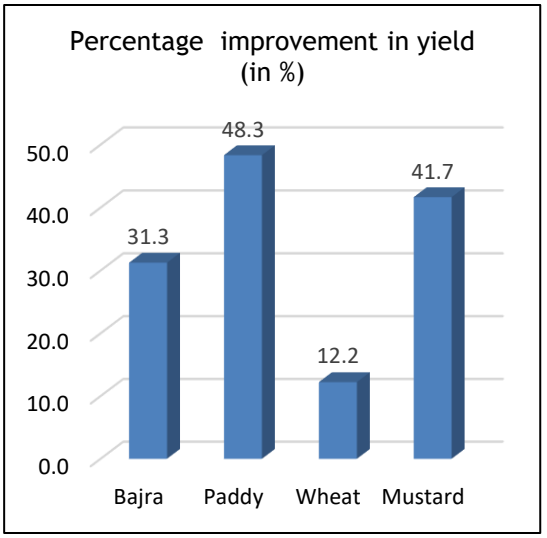


6. Improvement in Crop Yield (Qt/Bigha)

- Yield has improved for all four major crops of the project area. Interventions like pond silt application, field bund, and WHS construction mainly contributed to improvement in the yield
- Area under paddy cultivation and production also improved which was not an area of focus for the project but the community went for this crop due to topography and rainfall in the area
- Maximum yield increased for paddy (48.3 %) followed by mustard (41.7 %), Bajra (31.3 %), and Wheat (12.2%)

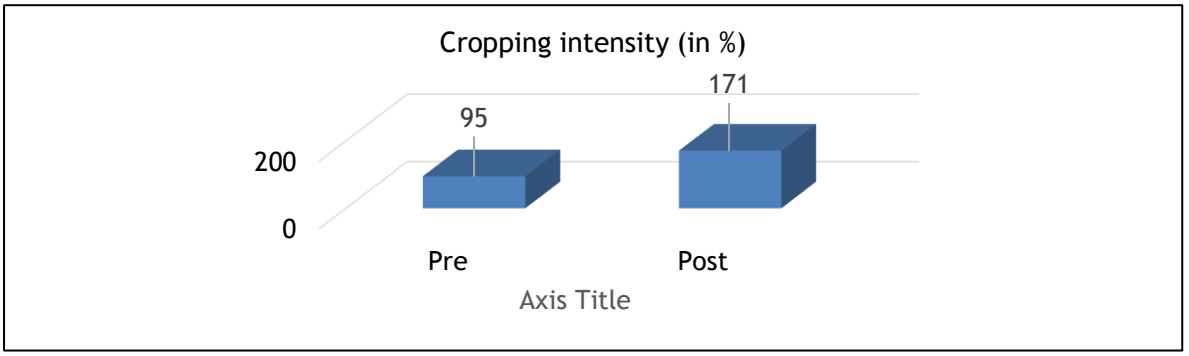
- Farmers informed that earlier they managed water on a purchase basis from tube well owner for wheat crop but now that cost is saved





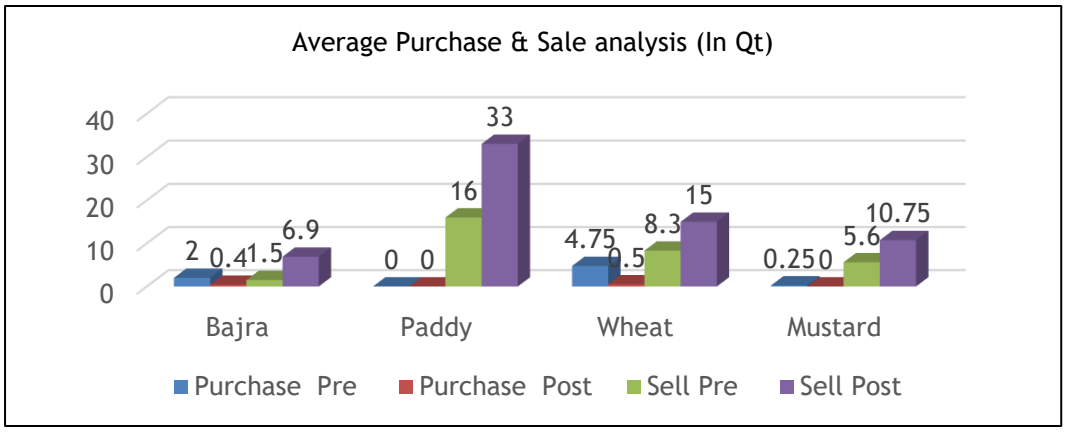
7. Improvement in Cropping intensity

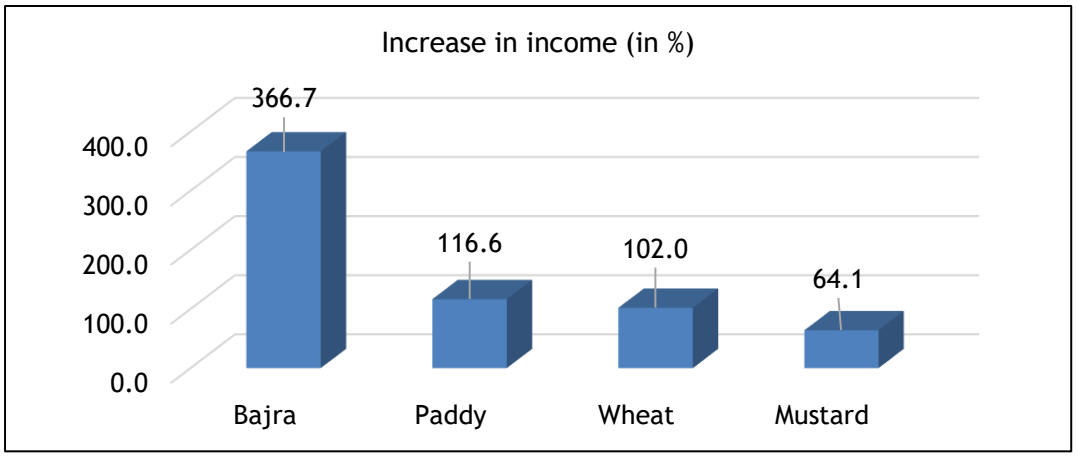
Cropping intensity of the project area improved from 95 % to 171 %. This has been calculated for two seasons (Kharif and Rabi) and for total land (162.5 Bigha) available with sample farmers



8. Improvement in Income from Agriculture

- Due to additional production and improvement in yield, the purchase of food grain has been reduced and farmers are able to sell their surplus produce
- Earlier farmers used to purchase an average of 2 Qt. Bajra and 4.75 Qt. wheat but now it has been reduced to almost zero
- There has been significant improvement in the selling of surplus produce. For Bajra It has improved from 1.5 to 6.9 Qt. followed by paddy (16 to 33 Qt.), wheat (8.3 to 15 Qt.), and Mustard (5.6 to 10.75 Qt.)
- Farmers are able to earn more income after selling surplus produce. Earlier farmers were able to earn between INR 2000 to INR 44000 per annum and now it has improved to INR 10000 to 95000 per annum
- There has been an improvement in income from 64% to 366%


Average Purchase & Sale analysis (In Qt)
40
30
20
10
0
2
0.4
1.5
6.9
0
0
16
33
4.75
0.5
8.3
15
0.25
0
5.6
10.75
Bajra
Paddy
Wheat
Mustard
Purchase Pre
Purchase Post
Sell Pre
Sell Post


Increase in income (in %)
400.0
300.0
200.0
100.0
0.0
366.7
116.6
102.0
64.1
Bajra
Paddy
Wheat
Mustard

Annexure 2:Analysis for assessment of behavioral change and adoption

PME has developed a tool to assess the community strengthening with regards to adoption of the intervention. FGD tool was used in nine project villages with beneficiary farmers to assess the change in behavior. During interaction, beneficiaries were requested to share their views on a.) adoption stages of project intervention b.) status of the adoptive measures and c.) key enabling factors or hindrances in achieving the adoption

Following observations were made during the FGD:

1. Regenerative agriculture activity was adopted by maximum beneficiaries followed by solar pump, field bund, land development, vegetable cultivation, orchard, and Pokhar (WHS) activities
2. Multiple instances were reported where 10-15% beneficiaries reported using organic farming (using Ghanamrit and Jeevamrit) on 1-2 bigha land for domestic consumption. This indicates that activity is being sustained by farmers. Thus, achieving the stage 5 of the adoption
3. 20-30 % of farmers reported that they have used the practice twice or more and plan to implement the same in future for their domestic consumption
4. 20-30 % of farmers reported getting motivated after hearing the good results and are planning to implement it in the next seasons i.e., achieving stage 2 of the adoption
5. Approx. 50 % of farmers either quit after the first time or never applied this practice
6. It was observed that the majority of farmers have recognized the need for and importance of following limitations in achieving the same:
    a) Lack of availability of an adequate quantity of cow urine, which is important for making Ghanamrit/Jeevaamrit
    b) Unavailability of Bio culture in the local market and low awareness on the nomenclature of the ingredients
    c) Organic manure/fertilizer/pesticide is labor intensive and time consuming and farmers are engaged on the farms. Machines can be used to prepare at the local level for mixing purposes
    d) Many farmers were highly demotivated after receiving low production in the first year of adopting the practice which is a common phenomenon. However, project team could not convince them to re-take the activity
    e) Unavailability of Market for sale of natural products

    SRIJAN reported that they plan to establish a village agriculture resource center to address the above stated limitations.

7. Activities like construction/renovation of water harvesting structure, earthen pal, and land development were rated high on the scale of impact but low adoption rate was reported due to the lack of availability of funds for poor farmers
8. Farmers also recognized the impact of Solar pumps, and this is the only activity where farmers are trying to gain knowledge and acted (like filling out forms etc.) to leverage under convergence
9. Field bunding activity was reported as highly relevant by the farmers. However, due to unavailability of funds and inability in arranging tractors, farmers have not been able to take the activity on their own
10. Very low adoption of MIS was reported. It was observed that farmers were not aware about the need and impact of MIS

Note:
Pre-contemplation: There is no intention of acting. (Implement the work only once provided support from the project)
Contemplation: There are intentions to act and a plan to do so soon (showed interest and did efforts to get more knowledge)
Preparation: There is the intention to act, and some steps have been taken (Followed a few steps at own level and under the facilitation of VDC/SRIJAN)
Action: Behavior has been changed for a short period of time. (Executed the activity at least one to two times and quit
Maintenance: Behavior has been changed and continues to be maintained for the long-term (executed the activity for two and more time
Termination: There is no desire to return to prior negative behaviors (doing the activity on a sustainable basis)

Annexure 3:Field visit plan

Date	Name of village	Tools	Name of activity visited
29th September 2022	Ond Manakhur Shyampur	FGD with VDC, FGD with AG beneficiaries, IDI, Site visit	• Solar pump with sprinkler • Onion House • Orchard • Vegetable cultivation • Field bund • Water harvesting • SWC
30th September 2022	Marmada Jagmal ki Raibeli Nanpur	FGD with beneficiaries, Site visit, IDI, FGD with VDC	• Water harvesting • Field bund • Orchard • SWC • •
1st October 2022	Teen pokhar Dhoreta Khirkhan Dolepura	FGD with beneficiaries, Site visit, IDI, FGD with VDC	• Water harvesting • Field bund • Orchard • SWC • Solar with sprinkler
10th October 2022	Kanchanpur Swami Makanpur Jakhoda	FGD with beneficiaries, Site visit, IDI	• Water harvesting • Field bund • Orchard • SWC • Solar with sprinkler • Vegetable
11th October 2022	Nimera Veeramki	FGD with beneficiaries, Site visit, IDI	• Water harvesting • Field bund • SWC

Annexure 4:Village level interventions

S. No	Name of Village	Regenerative Agriculture	SWC Works		WHS Works			Crop Diversification		Micro-irrigation	Solar Irrigation Pumps
		Unique Families for Regenerative Agriculture	Unique Families for SWC works (Direct Beneficiaries)	Hectare of land under SWC Works	Unique Families for WHS Works (Direct Beneficiaries)	Number of Structure	Water Harvesting Potential Created	Unique Beneficiaries for Horticulture	Unique Beneficiaries for Organic Vegetable Cultivation	Unique Beneficiaries for Micro-irrigation Activity	Unique Beneficiaries for solar irrigation pumps
1	Ond	91	55	233.88	0	0	0	5	11	2	1
2	Manakhur	112	79	47.3	54	18	309285	17	17	17	0
3	Shyampur	77	13	11.44	9	9	108441	6	5	4	3
4	Jagman Ki Raibeli	53	30	40	33	12	70341	0	0	0	0
5	Marmada	71	70	117.83	30	15	73560	2	2	2	2
6	Nanpur	29	39	280.73	0	0	0	7	10	2	0
7	Teen Pokhar	12	11	12.25	12	8	130116	3	3	5	1
8	Dhoretha	67	39	105.39	0	0	0	8	9	1	0
9	Khirkan	43	35	229.75	0	0	0	4	14	1	0
10	Gurja	53	13	9.25	34	12	231780	0	0	6	3
11	Kanchapur	42	17	1	1	1	4680	13	14	4	0
12	Makanpur Swami	124	18	3.51	0	0	0	22	24	10	3
13	Jakhoda	60	38	188.34	0	0	0	4	5	3	0
14	Viram Ki Gwari	36	26	23.05	42	3	61116	0	0	3	0
15	Nibhera	71	67	44.55	102	7	118290	1	1	1	0
Total		941	550	1348.27	317	85	1107609	92	115	61	13

Annexure 5: Photographs

Visit of Onion house -Shyampur

Interaction with beneficiaries -Marmada

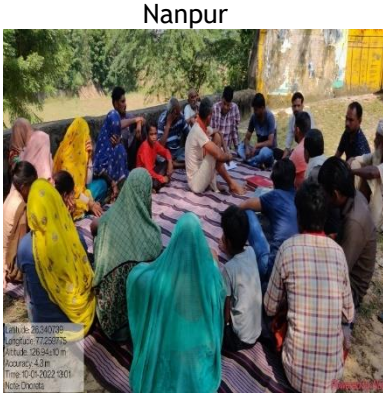
IDI with beneficiary – Jagmal ki raibeli

FGD with VDC – Jagmal ki raibeli

FGD with beneficiaries – Nanpur

FGD with VDC – Kanchanpur

FGD with VDC-Teen Pokhar

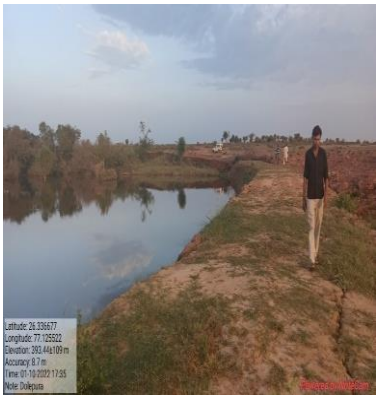


FGD with VDC -Dhoreta

Interaction with women – Dhoreta

Interaction with beneficiaries – Khirkan

Visit of Fruit Orchard



WHS -Dolepura

WHS -Dolepura

Nivera- structure under convergence

Interaction with beneficiaries -Veeramki

Nivera – Visit of WHS

Interaction with beneficiaries in Nivera village

Silt deposited in farmer field due to field bund and measured through pin

FGD with VDC – Ond village

Visit of WHS in Jagman ki Raibeli

Field bund -Arora village (moisture is available in the field)