L&T Financial Services

Voluntary Assessment of Project Jal Vaibhav - Maharashtra

Implementation Partner: Dilasa Janvikas Pratishthan

DILASA Janvikas Pratishthan

Assessment Partner: NuSocia

NuSocia Impact. Evident.

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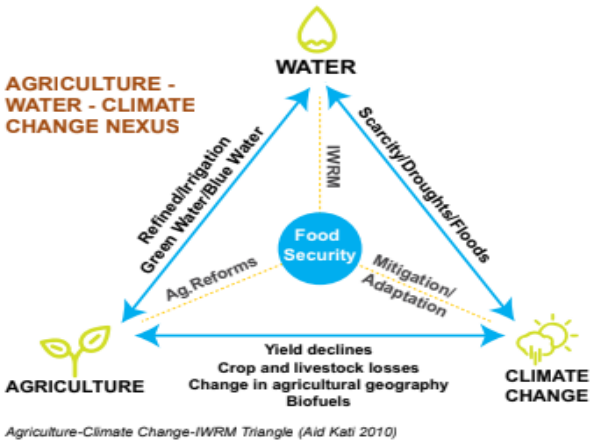
CONTEXT

PROJECT BACKGROUND

CLIMATE CHANGE AND IMPACT ON AGRICULTURE

INDIA STATS:

- At least 54% of the country faces high to extremely high water stress.
- Groundwater declined by 61% in 2007- 2017.
- 96 million farmers – 85% small and marginal farmers, dependent on rain-fed agriculture.



Agriculture-Climate Change-IWRM Triangle (Aid Kati 2010)

CLIMATE RESILIENT AGRICULTURE

- Targeted to reduce poverty by improving the usage of resources it depends on.
- **Integrated Water Resources Management** (IWRM) - process which promotes the coordinated development and management of water, land and related resources.
- IWRM has been promoted by the UN Global Water Partnership.

JALVAIBHAV PROJECT

- IWRM undertaken by LTFS to expand opportunities for farmers and vulnerable communities in rural areas of Maharashtra.
  - Address soil and water conservation challenges.
  - Training, capacity building, a package of practices for climate-resilient agriculture with watershed revival.
- Implemented by Dilasa Janvikas Pratishtan
- **IMPACT**: 30,000+ farmers directly in 60 villages.

SCOPE OF WORK: END LINE ASSESSMENT OF JALVAIBHAV PROJECT

JALVAIBHAV PROJECT OUTCOMES

- **Awareness** among **30,000 farmers** on modern agricultural techniques, soil health and climate-resilient agriculture
- Increase **knowledge** by **20%** among the targeted set of farmers
- **Adoption** of learnings by **20% farmers**
- **5,000 farmers** availing **soil testing** facilities

ASSESSMENT SCOPE OF WORK

Understand

- Problem and outcomes of the projects
- Identify all stakeholders involved
- Project methodology and the outputs in consultation with LTFS

Assess

- Direct and indirect changes in the target groups as per project goals
- LTFS recall amongst the community
- Overall impact of LTFS Jal Vaibhav project in terms of lives affected – farmers impacted, general community development

Recommend

- Recommendations for improvement and sustainability of the project

METHODOLOGY

STUDY DESIGN

S. No.	Key Areas	Tools Used
1	I. Testing the overall theory of change	• **Visioning Session** with AFARM team (recollection) • **Farmer's Diary -** Impressions on Theory of change along the process • **KIIs and FGDs**
2	I. Has JV contributed to the Climate Resilient Agriculture(CRA) and resultant well-being of the farmers? II. To what extent can farmers be considered 'Climate Resilient' over the course of JV project implementation?	• **Surveys** with farmers • **FGD** with Agricultural Development Committee(ADC), Water User Group(WUG) and Farmer Field School(FFS) • **KIIs**
3	I. What are the circumstances that make JV more conducive to communities? II. Have these impacts been lasting & sustainable? III. How is sustainability of JV being defined?	• FGDs • KIIs • Detailed assessment of ADCs and WUGs
4	I. Do the benefits of JV to its beneficiaries outweigh the cost of the project? II. Did JV provide a cost-effective approach for impacting the establishment, maintenance and sustainability of Hardware (water structures) & Software (community institutions)	NuSocia Strategic Inputs **In RCEEIS Framework**

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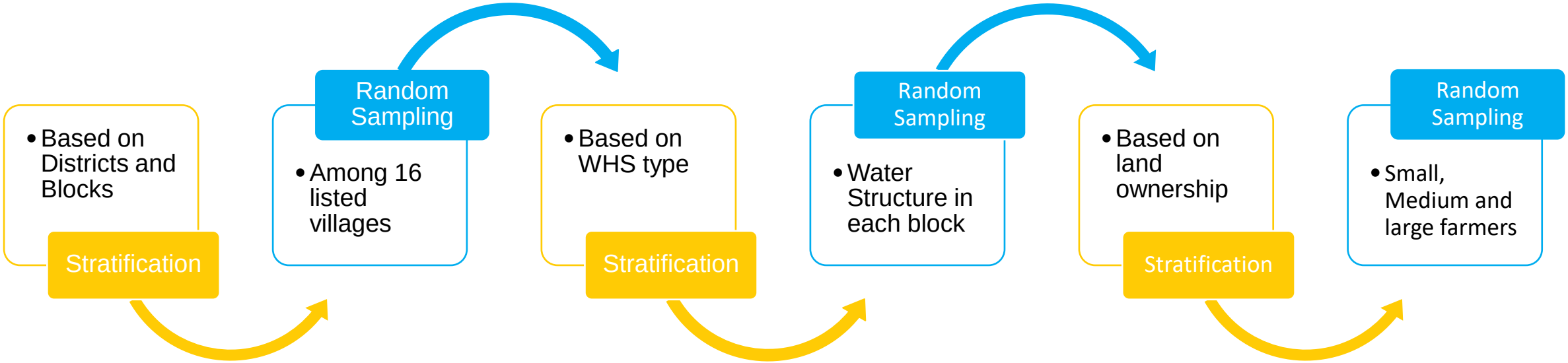
PROJECT GEOGRAPHY

Implementation Partner : Dilasa

Project Duration:
FY 2020 - FY 2021

Locations:
Districts (No. of Blocks) –
Jalna (1),
Buldhana (1),
Aurangabad (1)

SAMPLING



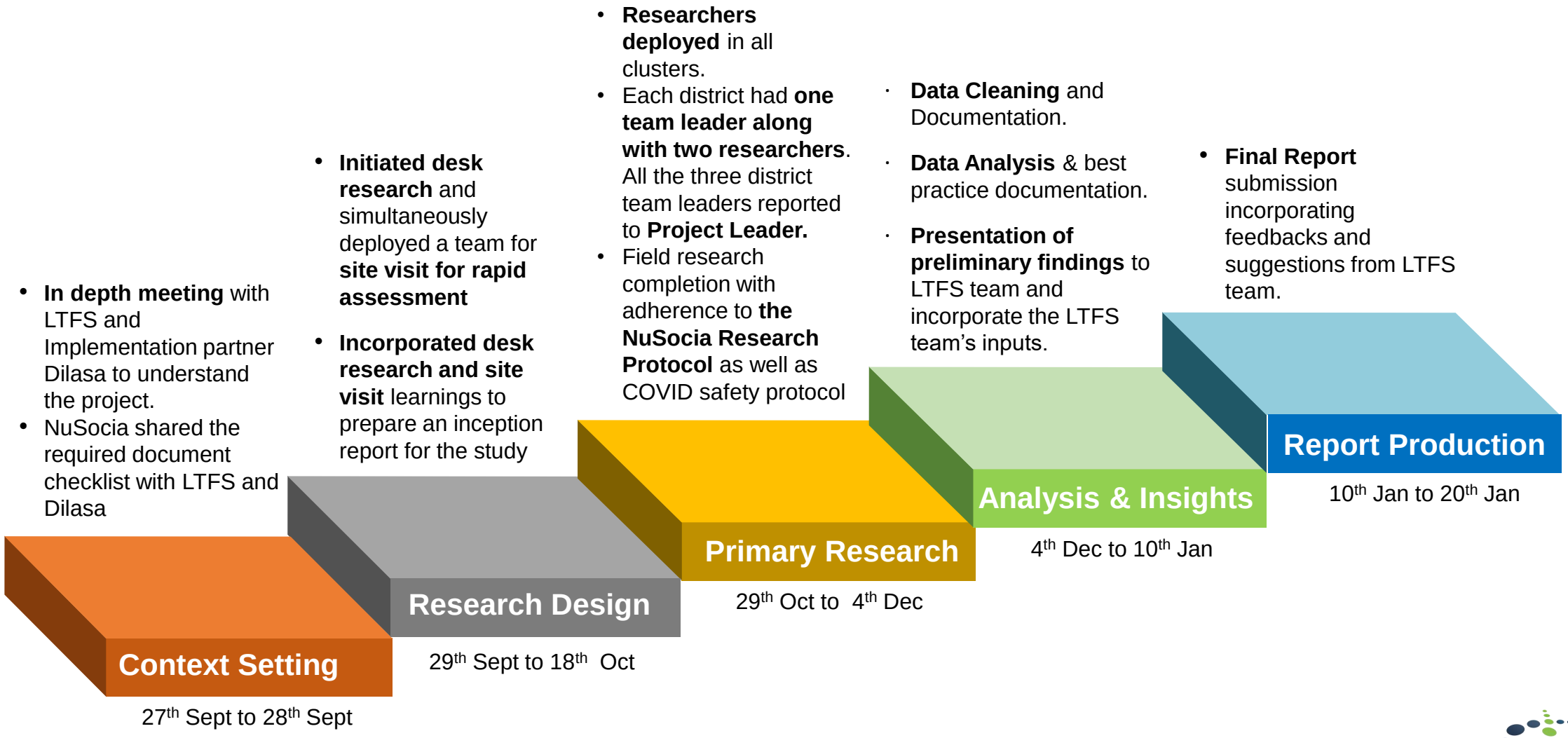
- Stratification used to make sample more accurate by reducing variability in distribution
- Probability Proportional to Size (PPS) specific sample size calculator used to estimate sample size
- Sample size estimated for statistically significant estimates at 95% confidence level and confidence interval of +/- 10% or +/-5%
- 549 Surveys (direct and indirect beneficiaries), 25 FGDs (Water user groups, Farmers, ADCs), 32 KIIs (Govt representatives and other institutions like NGOs, FPOs, Sarpanch, Krishidoots, Implementation team etc.)

STUDY SIZE

Block - District	Villages	Survey	FGD	KII
Chikhali - Buldhana	6	175	6	9
Badanapur - Jalna	5	180	11	12
Gangapur - Aurangabad	5	194	8	11
Total	**16**	**549**	**25**	**32**

District	Block	Villages
Buldhana	Chikhali	Shelodi, Antri Khedkar, Aasola Budruk, Karvand, Shelgaon Watol, Mera Budruk
Jalna	Badanapur	Akola, Devgav, Mandava, Anvi rala, Ujjenpuri
Aurangabad	Gangapur	Gaajgao,Dinwada, Kate Pipalgao,Siddhanat Vadgao, Nangare Babulgao

WORK PHASES



- **In depth meeting** with LTFS and Implementation partner Dilasa to understand the project.
- NuSocia shared the required document checklist with LTFS and Dilasa

- **Initiated desk research** and simultaneously deployed a team for **site visit for rapid assessment**
- **Incorporated desk research and site visit** learnings to prepare an inception report for the study

- **Researchers deployed** in all clusters.
- Each district had **one team leader along with two researchers**. All the three district team leaders reported to **Project Leader.**
- Field research completion with adherence to **the NuSocia Research Protocol** as well as COVID safety protocol

- **Data Cleaning** and Documentation.
- **Data Analysis** & best practice documentation.
- **Presentation of preliminary findings** to LTFS team and incorporate the LTFS team's inputs.

- **Final Report** submission incorporating feedbacks and suggestions from LTFS team.

LIMITATIONS OF THE STUDY

Validation of input e.g. evaluating content of the training was not part of the study objectives.

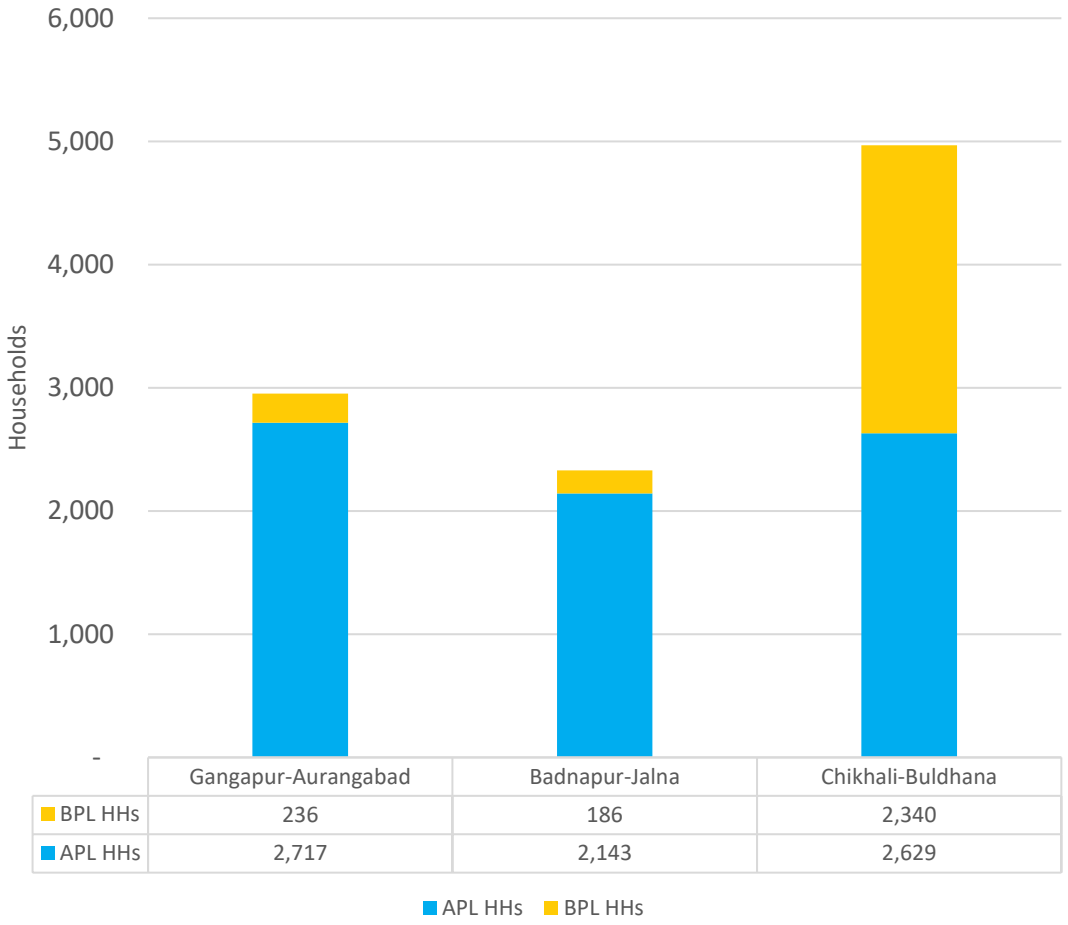
Technical analysis of structural strength of water harvesting structure was not part of the scope of the study.

Sampling related limitations: some of the Krishidoots were not available during the study period at the villages due to alternate employment elsewhere or due to Covid-19

FINDINGS

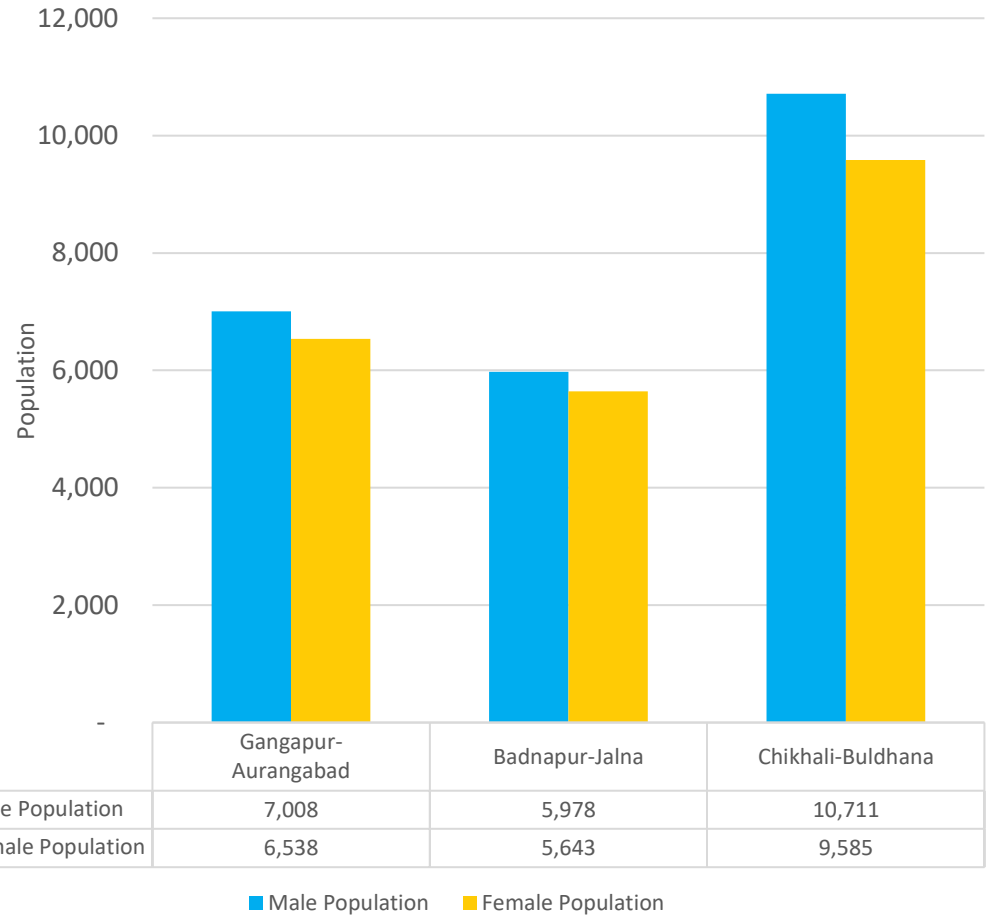
BLOCK DEMOGRAPHICS

APL/BPL HOSEHOLDS



	Gangapur-Aurangabad	Badnapur-Jalna	Chikhali-Buldhana
BPL HHs	236	186	2,340
APL HHs	2,717	2,143	2,629

MALE TO FEMALE RATIO

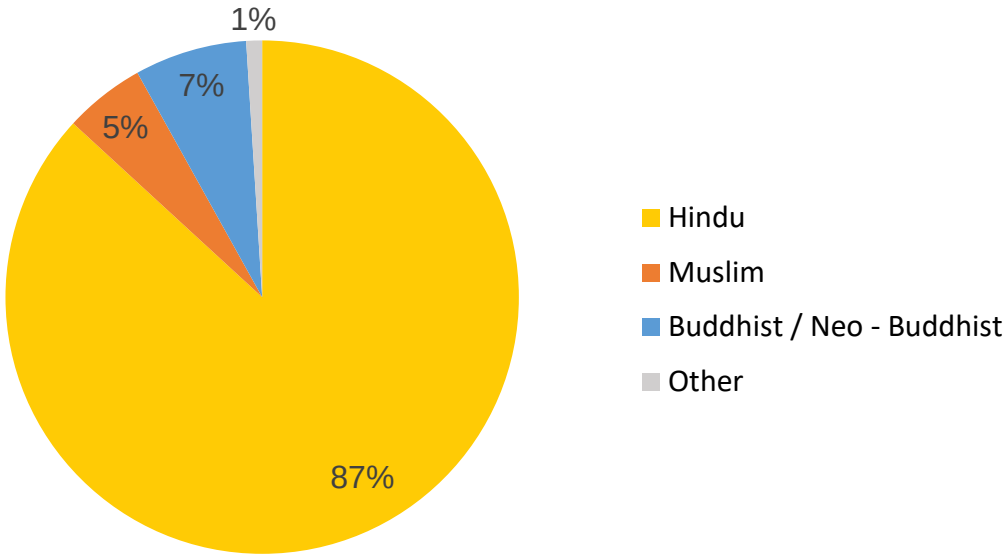


	Gangapur-Aurangabad	Badnapur-Jalna	Chikhali-Buldhana
Male Population	7,008	5,978	10,711
Female Population	6,538	5,643	9,585

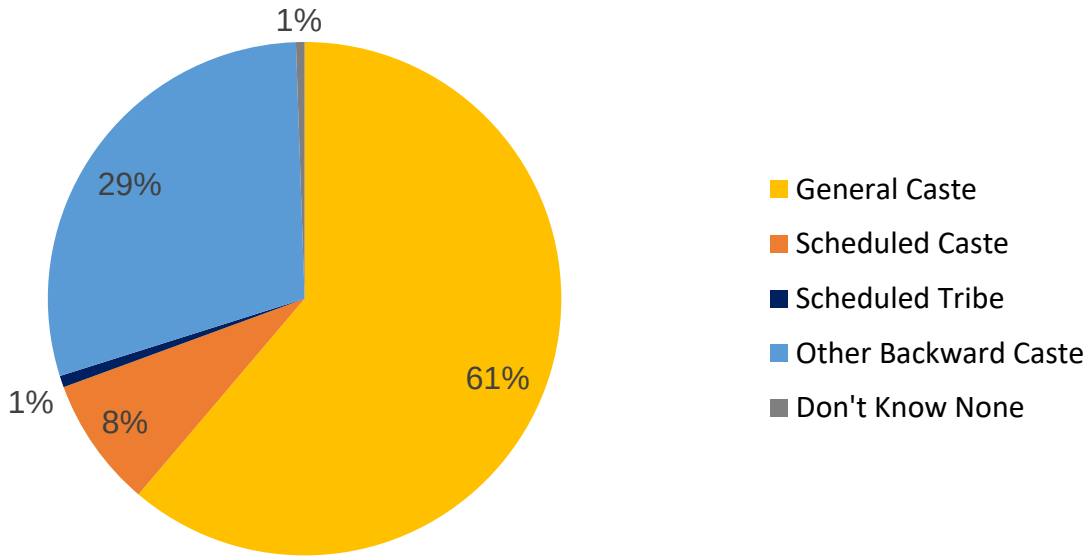
Except for one block, mostly APL families and a healthy male-female ratio can be seen.

DEMOGRAPHY OF SAMPLE STUDIED

RELIGION



SOCIAL GROUP



87% belong to the Hindu religion and 61% respondents belong to General Cast.

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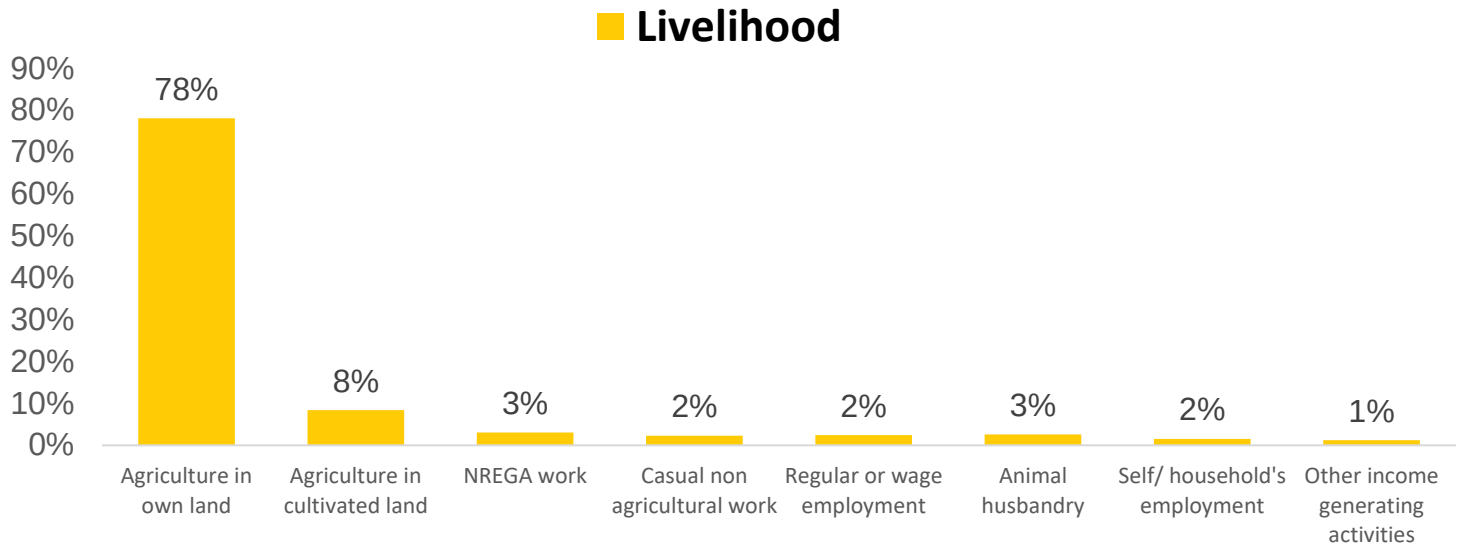
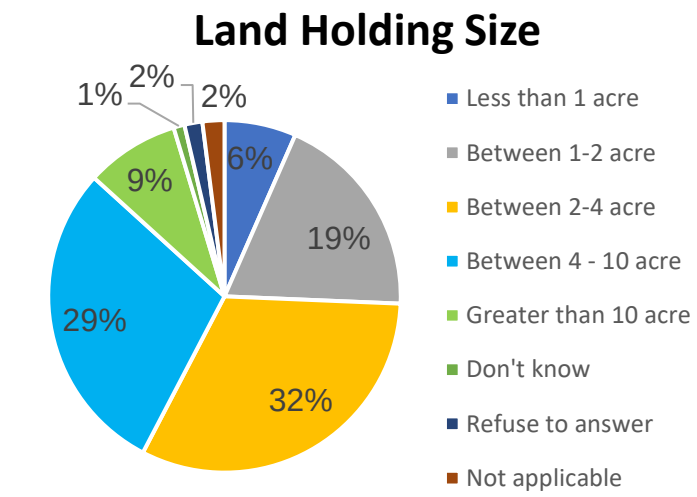
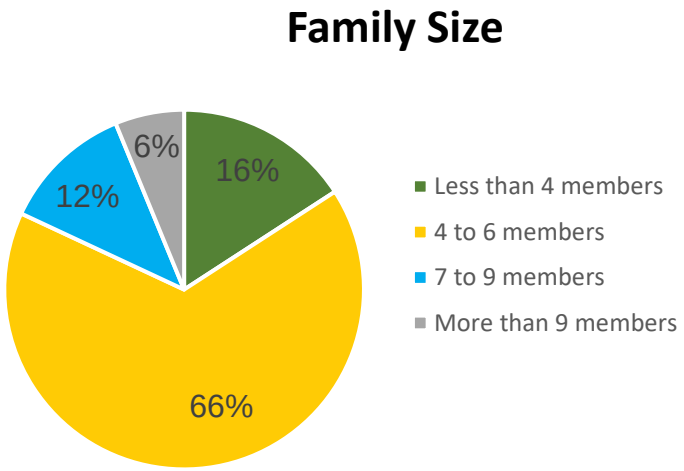
DEMOGRAPHY OF SAMPLE STUDIED







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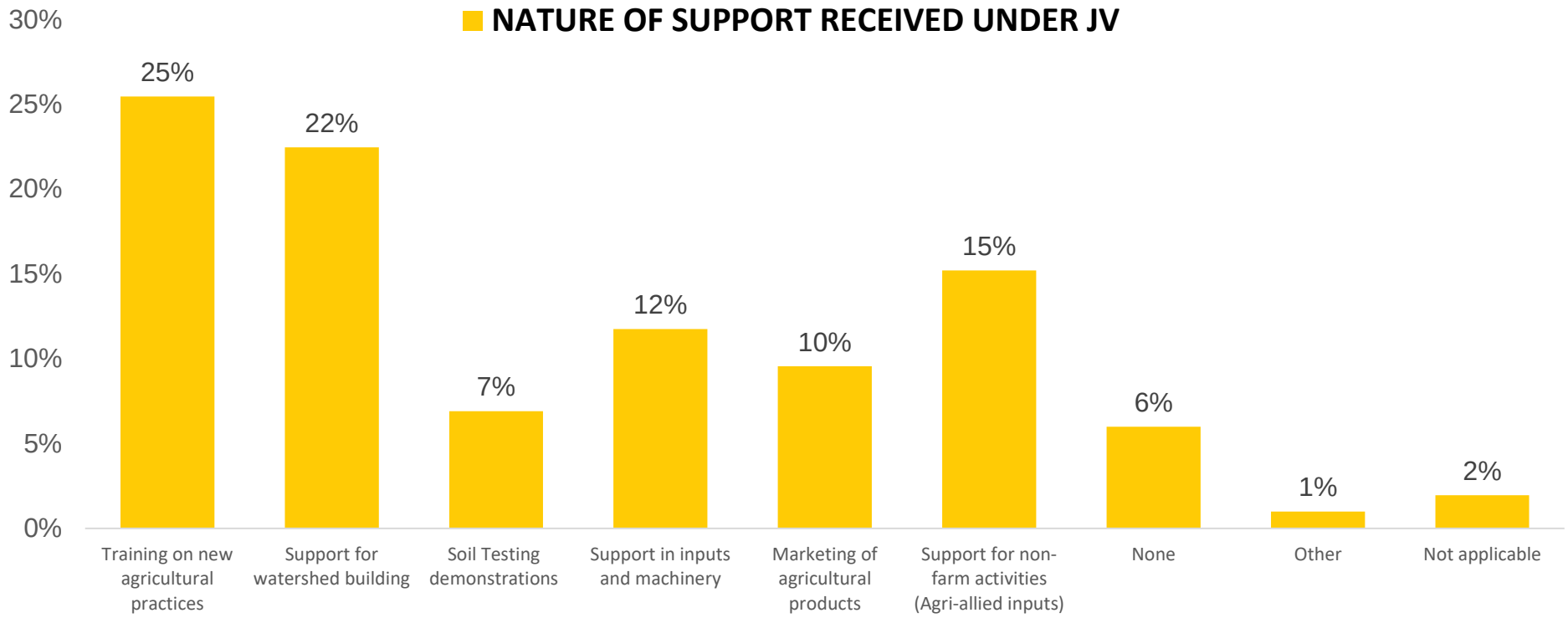
- 78% have agriculture as a primary income source.
- 41% own four or more than four-acre land and 66% respondents have four to six members in their family.

SUPPORT FROM PROJECT



25% feel Training in Agricultural Practices and 22% feel support for the watershed building is the main value-added from the project,

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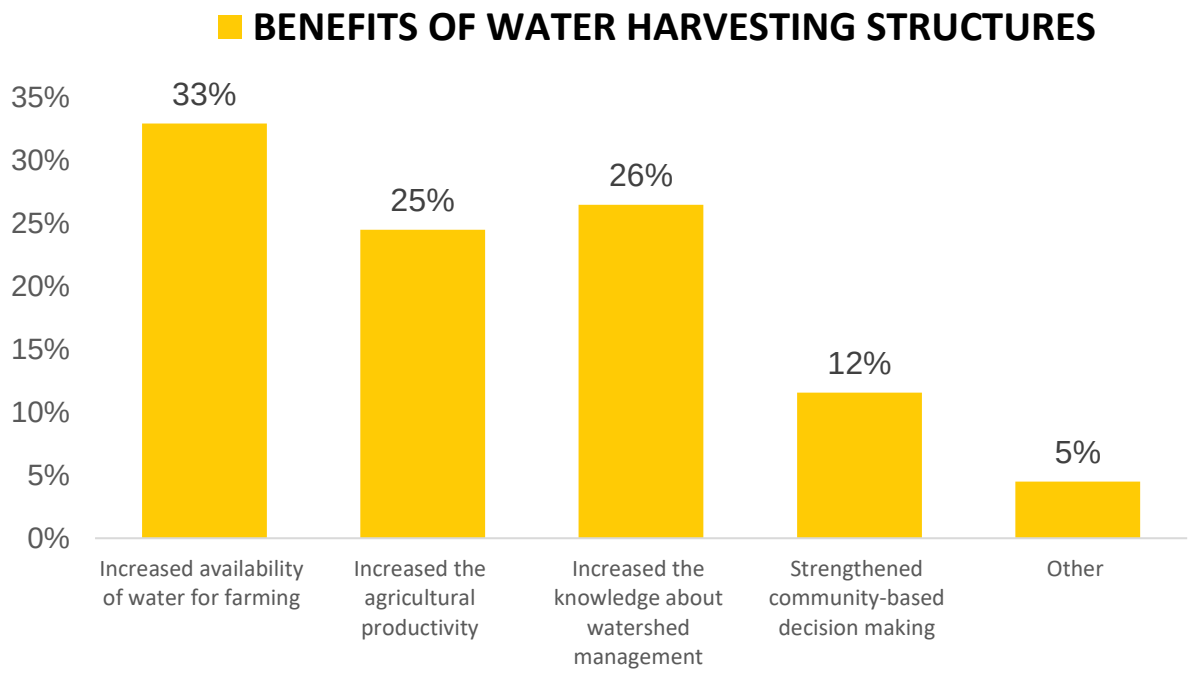
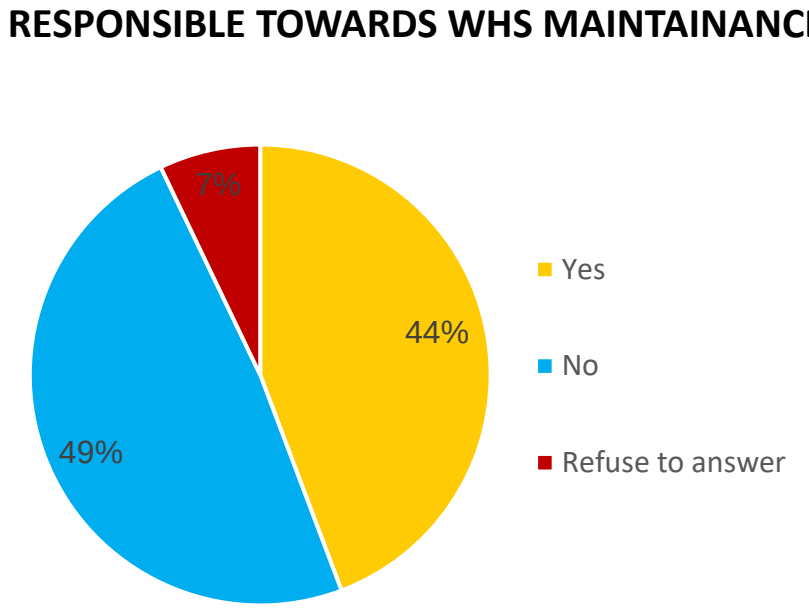
WATERSHED AND GEOLOGICAL IMPACT





- Out of the 376, 33% of respondents said due to WHS, there is an increase in the availability of water for farming followed by an increase in knowledge about watershed management.
- 44% of the respondents feel that the maintenance of Water Harvesting Structures is their responsibility.

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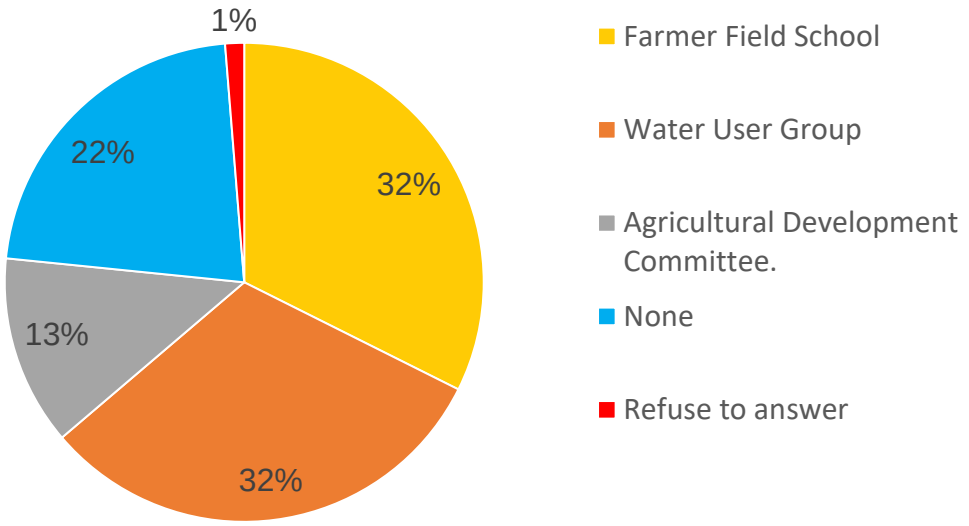
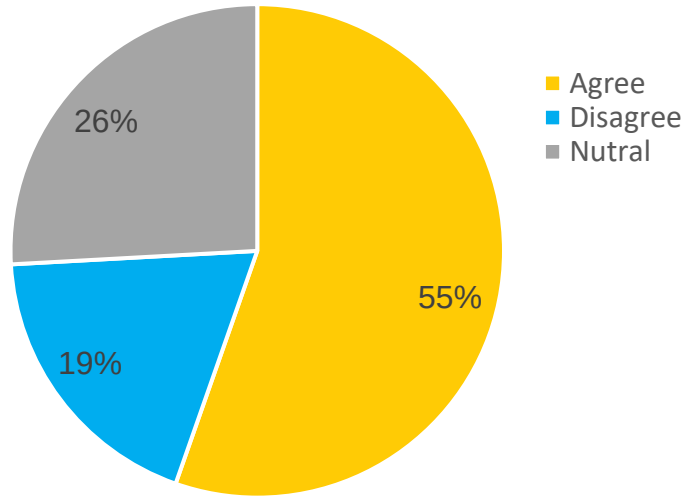
VILLAGE LEVEL INSTITUTIONS (1/2)

PARTICIPATION IN INSTITUTION



AUTHORITY OF ALL INSTITUTIONS ON FARMING DECISIONS



- There is an almost equal number of respondents have participated in Farmer Field School as well as Water User Group
- 55% agreed that the group has authority on an individual and village-level farming decision.

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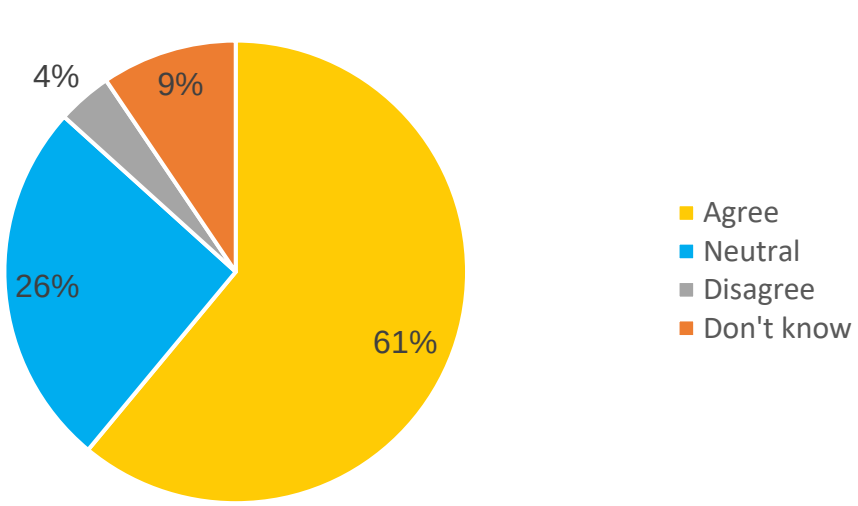
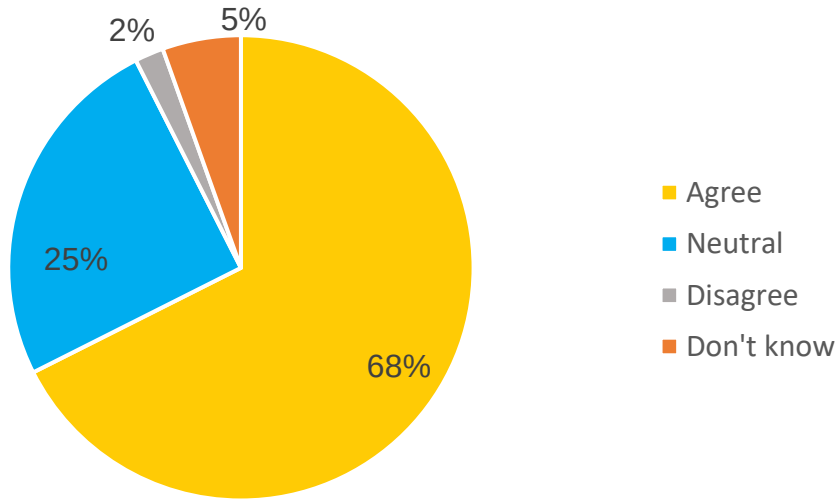
VILLAGE LEVEL INSTITUTIONS (2/2)

WATER USER GROUP HAS IMPROVED FARMING ACTIVITY



FARMER FIELD SCHOOL ARE USEFUL WAY TO LEARN AGRI PRACTICES



- 61% of respondents agreed that Water User Group activity improved agricultural activity in their village.
- 68% of respondents agreed that Farm Field Schools are a useful way to learn agricultural practices.

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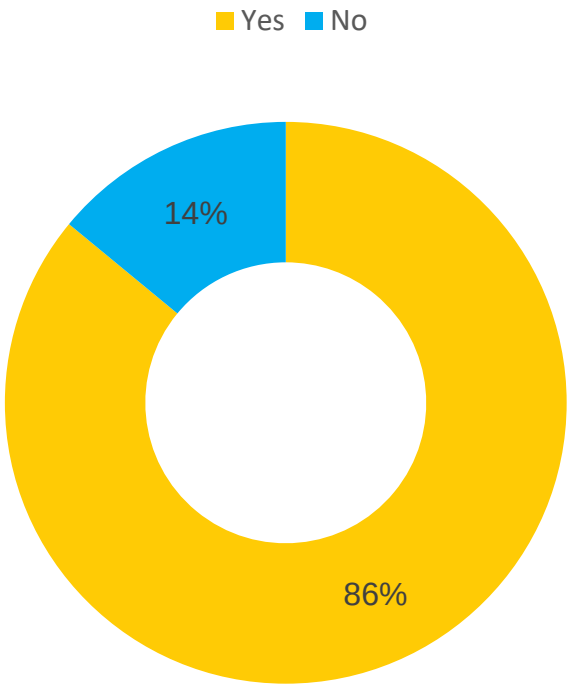
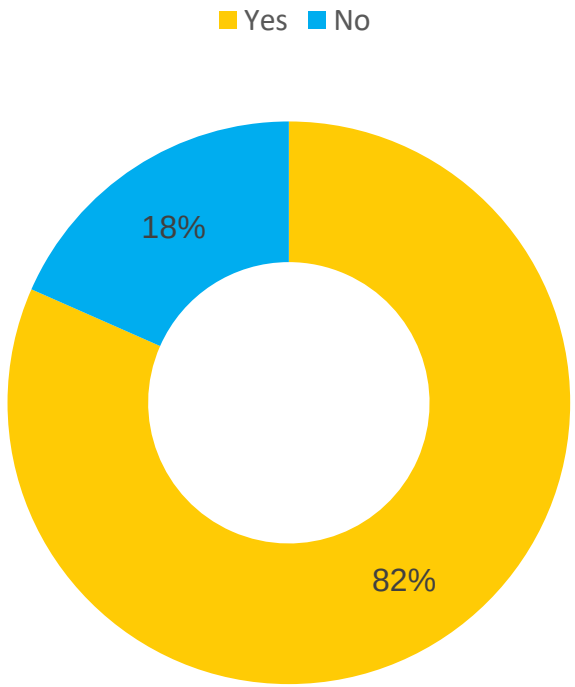
LTFS AND PROJECT RECALL

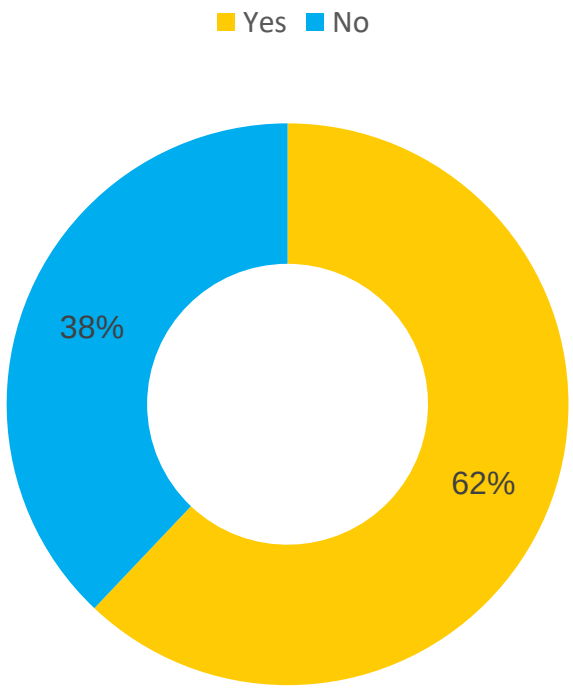
RECALL : JAL VAIBHAV



RECALL : LTFS & Dilasa



AWARENESS : LTFS



Overall, 86% of respondents have a recall of the JV project. 96% have recall of LTFS and Dilasa. However, just 62% recalled LTFS

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SUCCESS INDICATORS

	Baseline %	Assessment %
	Farmers adoption	Farmers adoption
Soil Testing	24	33
Seed Treatment	16	44
Adoption of IPM	8	65
Mix cropping/ Inter cropping	26	50

Source: Dilasa BNA report

Earlier the wells had water only for 2 to 3 months during monsoons but now we are using drip irrigation for fruit-bearing crops. Few farmers are also cultivating additional crops. All this change is possible only from Jal Vaibhav. Our village is close to a town area so there is a demand for milk, we are able to cultivate fodder because of the water availability - ***Farmer from Dinwada Village***

Initially, for wheat and tur crops there was no water available but because of the Jal Vaibhav project, through water lifting, we are providing water to the farms. If Jal Vaibhav is implemented on a large scale, it will help other farmers as well. - ***Farmer from Akola Village***

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BEST PRACTICES USED

- **Farmer Field School**
  - Integrated learnings (soil testing, seed treatment, organic fertilizer, mulching etc.) for farmers.
  - Resulted in the adoption of improved agricultural practices, improvement of productivity and water availability.

- **Collaboration**
  - The idea of “coming together” leveraging the power of collective buying and marketing has been seeded.

- **Integrated approach**
  - Use silt from WHS desilting into improving the soil in the field.
  - Road construction using soil coming out of WHS construction.

STORY OF CHANGE

- Farmer
- Narayan Panduranga Chand, Village Mandwa, Taluka Badnapur, Dist Jalna
- DILASA Project

Because of this cement Nalla bund, a lot of water has been stored in the nalla. I can use this water for my farming. This has also helped increase the groundwater level. Due to the blocking of the runoff water, there is an increase in water and tree conservation. This has benefitted 20-30 farmers in my village

Thank You!

ABBREVIATION

Abbreviation	
ADC	Agriculture Development Committee
FPC	Farm Produce Company
FFS	Farmer Field School
FGD	Focus Group Discussion
IWRM	Integrated Water Resources Management
JV	Jal Vaibhav
KII	Key Informant Interviews
NA	Not Available
WHS	Water Harvesting Structure
WUG	Water User Group