HAND IN HAND INDIA

Kovilur and Nammiyampattu watershed development projects

Social impact assessment

Jan-Feb 2017

SUMMARY

I AQWA'S MISSION AND METHODOLOGY

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1. AQWA team
2. Scope of the mission
3. Deliverables and commitments
4. Details on methodology
5. Calendar
6. Sample
7. Watershed projects' social impact theory
8. Disclaimer

Team

Mathilde

President

Mathilde is from Paris. She studied at ESSCA Business School. She created her online rental company 2 years ago before committing to the AQWA project.

Nathalie

Secretary General

Nathalie is from Peru. She has lived in France for 5 years, where she studies finance at emlyon Business School. She worked for Gawad Kalinga in the Philippines.

Manon

Vice President

Manon is from France. She studied politics before specializing in social entrepreneurship. She worked in the organization of the Convergences World Forum.

Pauline

Treasurer

Pauline is from Paris. She studies at HEC Paris Business School. She cumulates experiences in social impact assessment, strategy marketing and consulting.

Scope of the mission

Objectives

The present Social Impact Assessment study related to the *Kovilur* and *Nammiyampattu* watershed development projects implemented by *Hand in Hand India*'s Natural Resources Management Pillar in Jawadhu Hills, Tamil Nadu.

Social Impact Assessment (SIA)

Strategic Recommendations

OBJECTIVE 1
Better communicate on the watershed projects, especially to donators and investors

OBJECTIVE 2
Improve the watershed projects' processes and efficiency .

Scope of the mission

Settings

WHO?

Beneficiary farmers in *Kovilur* and *Nammiyampattu* watersheds

WHAT?

Social impact assessment of all major implemented watershed development activities on the farmers' **economic situation**, **well-being** and **empowerment** (economic and social impacts). *Excluded from the analysis:*

- *Tree plantation, as its social impact will only be effective in a few years;*
- *Impacts on health, as it is too indirect to be taken into account in the present study, and premature to consider when project implementation is so recent.*

WHEN?

From January 9th to February 16th;
Data collection took place from January 13th to February 1st.

WHERE?

Kovilur and *Nammiyampattu* watersheds, Jawadhu Hills, Tamil Nadu, India;
Across 19 target communities and 7 control communities.

Deliverables and commitments

FINAL RESULTS

- Word exhaustive report
- Present PPT executive summary

SIA MISSION TOOLS

- Key SIA tools: Impact Map (PPT), Theory of Change (Excel)
- Questionnaires to farmers
- Guidelines and minutes from qualitative interviews and FGD
- Data collection and analysis Excel sheet

SPECIFIC COMMITMENTS

- Photographs from the field

BONUS

- Contact wit AQWA's student network

Methodology

Main steps

	STEP	CHARACTERISTICS	OBJECTIVES
Scope of mission	0	• Decision on mission goals, road map and sample	• Give a clear direction and objectives to the study
Impact Map and Theory of Change	1	• Key tools to set scope and draft questionnaires	• Identify all potential impacts • Determine relevant indicators
Questionnaire drafting and test	2	• Quantitative and qualitative • Tailored with HIH's help	• Collect data according to selected indicators
Data collection	3	• 3 weeks long • Physical interviews	• Build data base for social impact analysis
Analysis	4	• From iForm to Excel • Excel and qualitative analyses	• Convert interviews into statistics and trends
Final report drafting and final presentation	5	• Exhaustive structured final report following methodology	• Deliver data to HIH, highlight key results of study
Deliverables submission	6	• Questionnaires and analysis tools handed over to HIH	• Be able to carry out other SIA studies in the future

Methodology

Target vs. control

The principle of the methodology relies in the **comparison** between characteristics of target groups and those of control groups, to finally extract the social impact generated by the watershed projects.

TARGET GROUP

People who benefit from the program

Target farmers benefiting from at least a field bund, farm pond, stone gully bund, catch pit or check dam

≠

VS

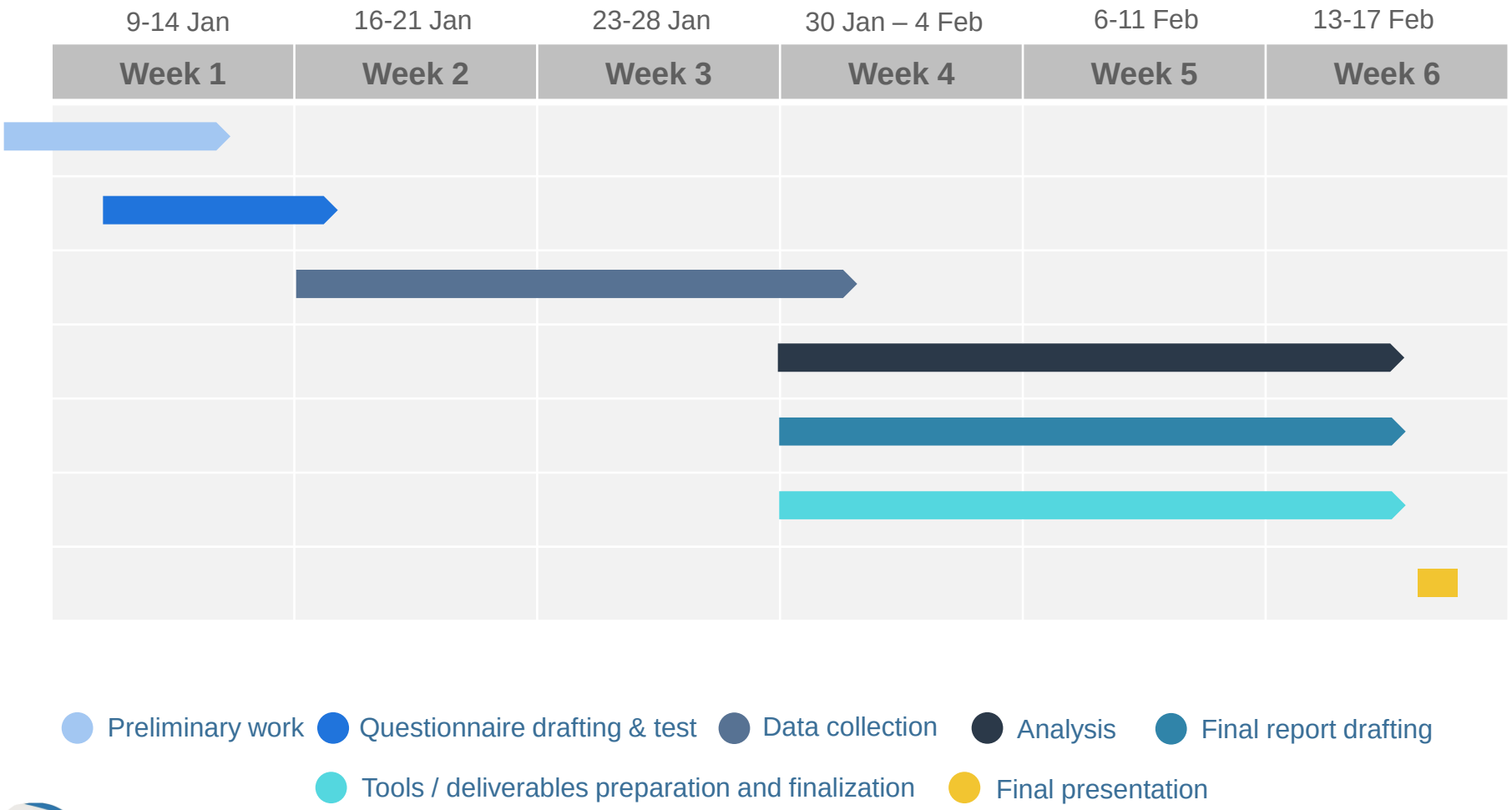
CONTROL GROUP

Other people who don't benefit from it

Control farmers

The more comparable the sample groups, the more relevant the analysis

Calendar


9-14 Jan
16-21 Jan
23-28 Jan
30 Jan – 4 Feb
6-11 Feb
13-17 Feb
Week 1
Week 2
Week 3
Week 4
Week 5
Week 6
Preliminary work
Questionnaire drafting & test
Data collection
Analysis
Final report drafting
Tools / deliverables preparation and finalization
Final presentation

Sample

Overview

# individual questionnaires	# qualitative interviews	# Focus Group Discussions
217	7	8

Target 108	Control 109	Project Manager	Presidents of watershed committees	Presidents of OFG	Vice-President of JH Organic Farmers Producers Ltd.	Target 108	Control 109

Dedicated resources

4 translators a day

1 vehicle

1 offline collection data platform for individual questionnaires: iForm

Dedicated time

1h for target individual questionnaires, 40 minutes fro control individual questionnaires

1h for qualitative interviews

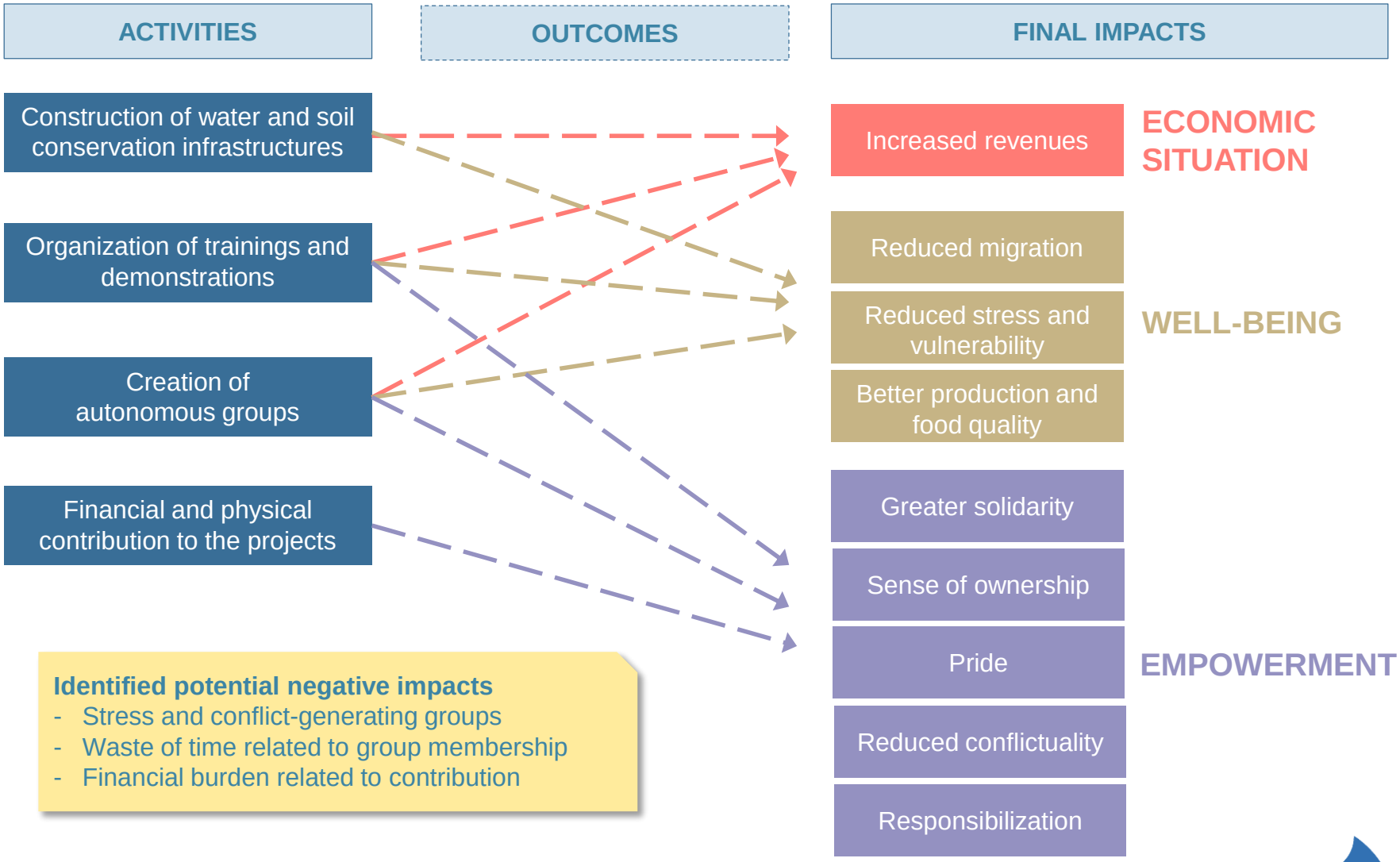
1h10 for focus groups

Sample

On the field

Impact Map

Overview



Identified potential negative impacts

- Stress and conflict-generating groups
- Waste of time related to group membership
- Financial burden related to contribution

Theory of Change

Overview of selected indicators

		Main indicators (non exhaustive)	Unit
ECONOMIC SITUATION	Increased revenues	Annual revenues from agriculture	INR
WELL-BEING	Reduced migration	Time spent as migrant labour, and evolution	# months
	Reduced stress and vulnerability	Perceived stress level about food and water access	% of interviewees
	Better production and food quality	Perceived evolution of soil and production quality	% of interviewees
EMPOWERMENT	Greater solidarity	Perceived level of interaction and integration	% of interviewees
	Sense of ownership	Perceived level of pride to be part of community Opinion on maintenance trainings	% of interviewees Qualitative comments
	Pride	Perceived level of pride to be part of community Perceived level of pride to be involved in the projects	% of interviewees % of interviewees
	Reduced conflictuality	Perceived level of conflictuality within the community	% of interviewees
	Responsibilization	Perceived personal sense of responsibility	% of interviewees

Excluded:
- Impact on health
- Impact of tree plantation
- Other non implemented or non observed agricultural activities

Disclaimer

LOGISTICS	• Ambiguity on the reference contact for logistical purposes, resulting in dead times and impossibility to respect exact sample representativeness • Occasional overlaps between target and control groups • Attempt to avoid those overlaps, resulting in non-comparable target and control groups in terms of remoteness
PROJECTS-RELATED INFORMATION	• Late realization that the watershed projects had been mainly implemented from 2015, not from 2012 • Difficulties in grasping definition and categorization of all watershed activities • Inaccurate statistical data on the watershed projects' beneficiaries
TRANSLATION	• Limited English level, which resulted in the loss of qualitative data • Automatisms linked to repetitiveness of questionnaires and limited English level, resulting in biases of some questions and answers

II BACKGROUND INFORMATION

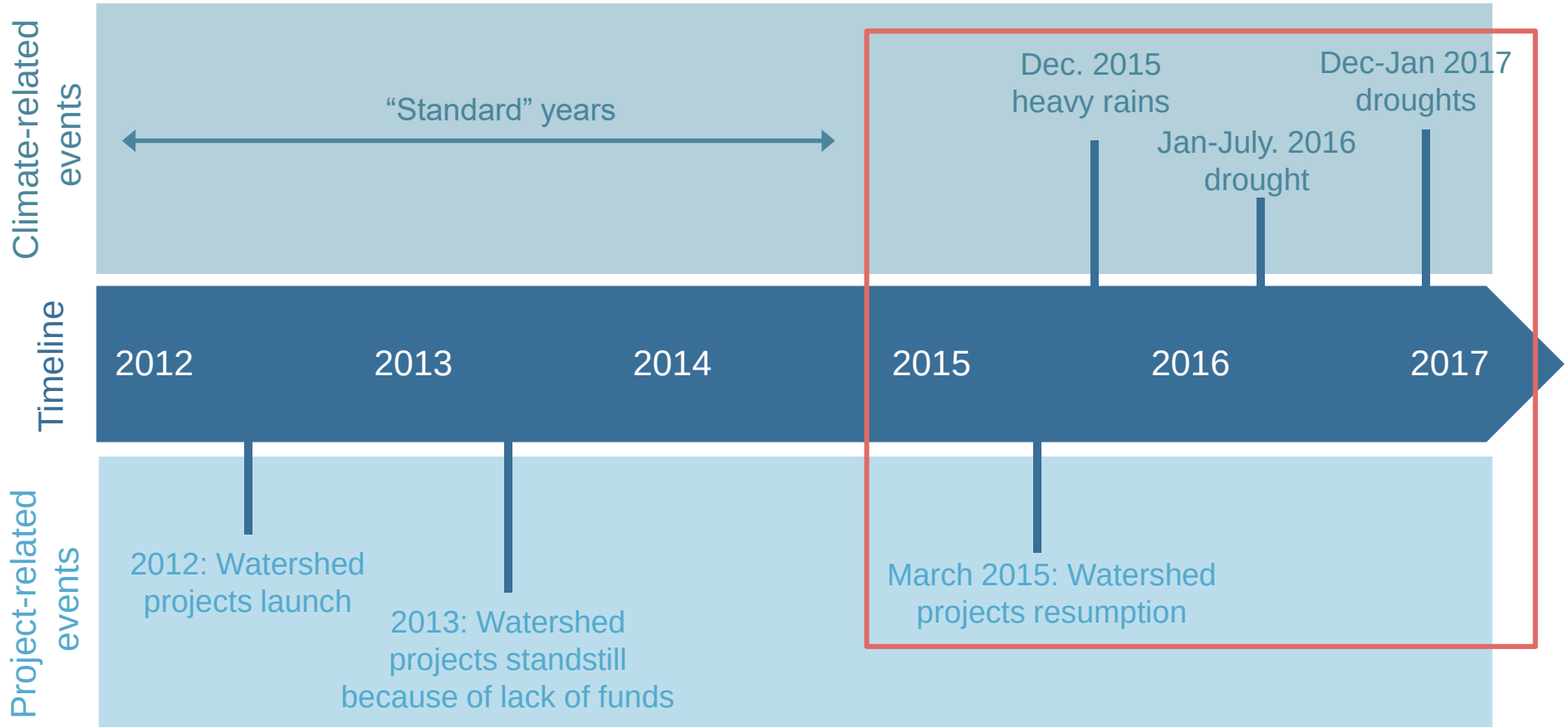
II BACKGROUND INFORMATION

1. Climatic circumstances

2. Other contextual elements

Climatic context

The watershed projects have mainly been implemented from March 2015, which was quickly followed by unusual climatic events that bias social impact results



Other contextual elements

RISING INFLUENCE OF BIG AGRO-PROCESSING COMPANIES	• RASI Seeds for cotton, GLOBAL GREEN for gherkins, SELVA Seeds for paddy • Ensure production upstream and downstream for farmers • Impacts use of chemical fertilizers • Inconsequential on the present study
GROWING INTERVENTION OF NGOs IN THE AREA	• Don Bosco Tribal Development Centre, Vellore Institute of Technology, Puthu Vazhwu Thittham, TVS Company. Dan Foundation, or Centre for Indian Knowledge System (CIKS) • Especially active in loan grants and initiation of SHG • Potentially playing down the social impact of HIH-initiated groups
MIGRATION	• Key long-term challenge in the area • Established negative correlation between agricultural revenue level and migration • Watershed projects' key objective, which will take longer to come into effect • To be taken into account in future SIA studies
ALCOHOLISM	• Relatively new trend (over the past decade) • Caused by easier access to alcohol from government shops, cultural shift, increased access to cash via migration revenues • Inconsequential on the present study

III SOCIAL IMPACT RESULTS

III SOCIAL IMPACT RESULTS

1. Water and soil conservation infrastructures
2. Trainings and demonstrations
3. Creation of autonomous groups
4. Farmers' contribution to the watershed projects
5. Conclusions

Water and soil conservation infrastructures

Impact on agriculture

Key data on agricultural activities

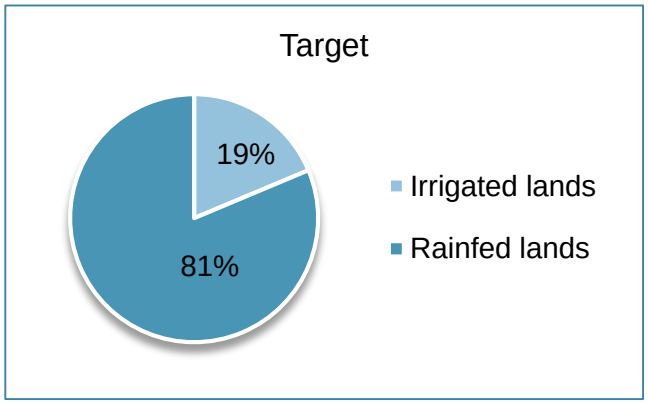
Land size

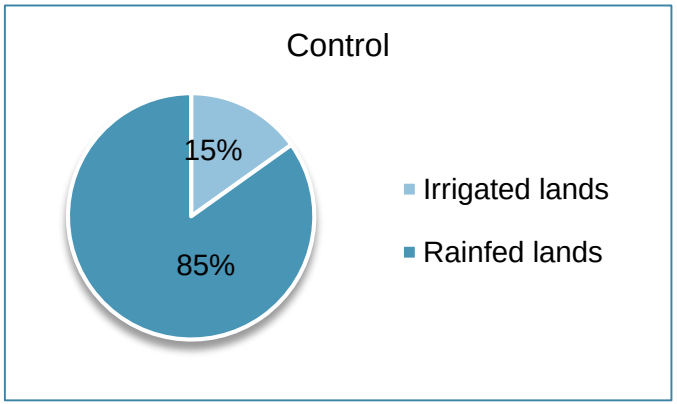
	Target	Control
MIN	0.50	0.13
AVERAGE	4.02	1.65
MEDIAN	**2.5**	**1**
MAX	60.00	10

26 types of crops

- **01** Little millet
- **02** Horse gram
- **03** Rice

Irrigated vs. rainfed



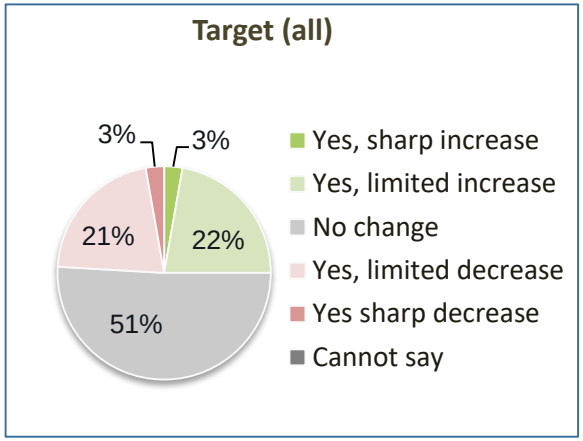


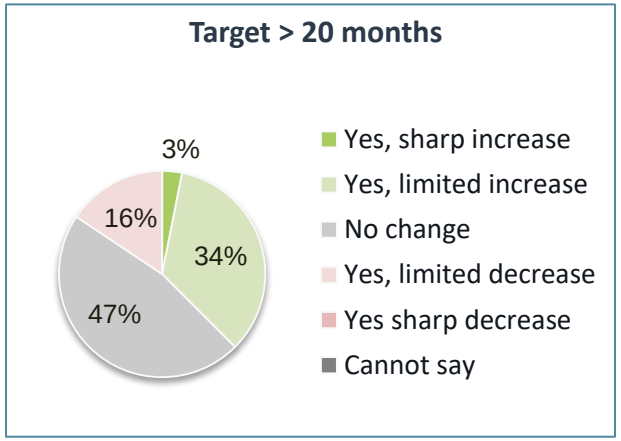
Water and soil conservation infrastructures

Impact on access to water for their crops (1)

Overall, access to water has not improved yet for beneficiaries…

Did you see any change in the water level?





→ **No change in water level**

However, results are positive for beneficiaries that received the project at least 20 months ago.

23 beneficiaries declared the infrastructures "*have always been empty*"

59% *have "not enough water for their crops' today,*

55% *had not before the project*

→ **No change in the perception on access**

"Before, there was rain but no water storage and now that we have water storage, there is not enough rain, so still not enough water for our crops."

Water and soil conservation infrastructures

Impact on access to water for their crops (2)

…but the situation is less critical for them.

- Today, water scarcity is higher in the control group

Do not have enough water "at all" for their crops	
Target **27%**	Control **55%**

Feels "very stressed" about water supply for crops	
Target **59%**	Control **78%**

The control interviewees compare the situation today with "4 years ago", and target with "before the implementation of the project"

- The evolution within the past few years is also more negative in the control group.

Decrease in the water level	
Target **24%**	Control **72%**

Evolution of the perception on access to water	
Target **Neutral**	Control **Very negative**

15% only consider having enough water today, vs. 96% 4 years ago

Positive impact on access to water for crops

Lower water scarcity today for beneficiaries, compared with control

Alleviation of the deterioration on access to water over the past few years

Water and soil conservation infrastructures

Impact on yield

There was a general decrease in agricultural yield during the past 3 years, sharp decrease in 2016

2015 – 2016 EVOLUTION

Crops for which target group's yield is higher

Millets yield

Target	Control
- 45%	- 34%

Rice yield

Target	Control
- 25%	- 24%

Oil seeds yield

Target	Control
- 63%	- 20%

Pulses yield

Target	Control
- 41%	- 36%

18% target farmers alleged their **yield increased** in the past 4 years, vs. 1% control farmers.

55% of their explanations for such increase are directly linked to the project, and 25% can be indirectly related to it.

Inconclusive impact on farmer's agricultural yield

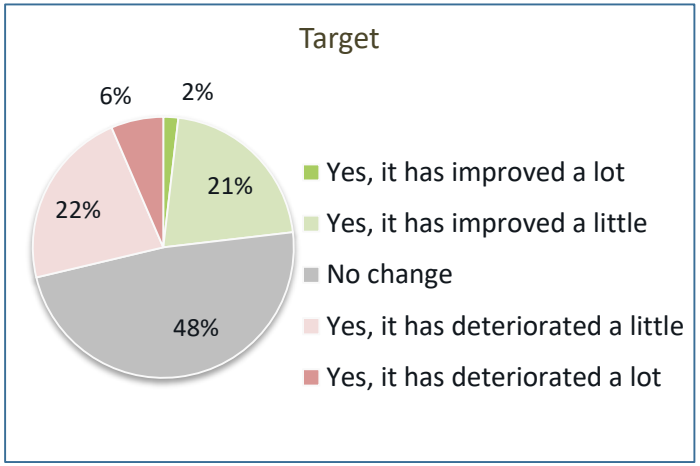
There is a drop in all crops' yield, and a decrease that is even more important among target farmers. We notice a positive trend regarding perception: some beneficiaries believe their yield increased thanks to HIH.

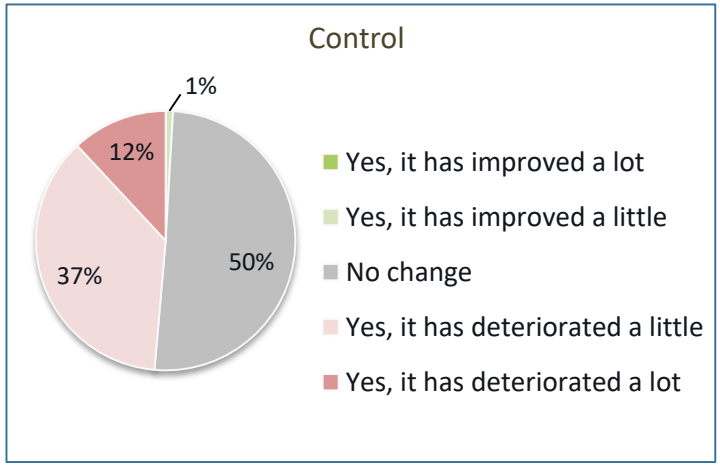
Water and soil conservation infrastructures

Impact on the soil quality

Although the soil quality has not increased on average for the beneficiaries, infrastructures allowed to alleviate the deterioration

Did you see any change in the soil quality?





Lack of rain is the main reason

68% for target
83% for control

16 interviewees declared the quality has increased at least partly thanks to the infrastructure(s)

Positive impact on the soil quality

Reduced decrease in soil quality (28% target, vs. 49% control).
Higher proportion of increase (23% target vs. 1% control), 15% explain it by their new infrastructures

Water and soil conservation infrastructures

Impact on the quality of the production

The quality of the production has globally decreased for all interviewees over the past 4 years, to a lesser extent for target farmers.

Deterioriation

Target	Control
37%	**56%**

Lack of rain is the main reason

Improvement

Target	Control
15%	**7%**

3 beneficiaries declared the quality of the production has increased thanks to the infrastructure(s) received

Positive impact on the quality of the production

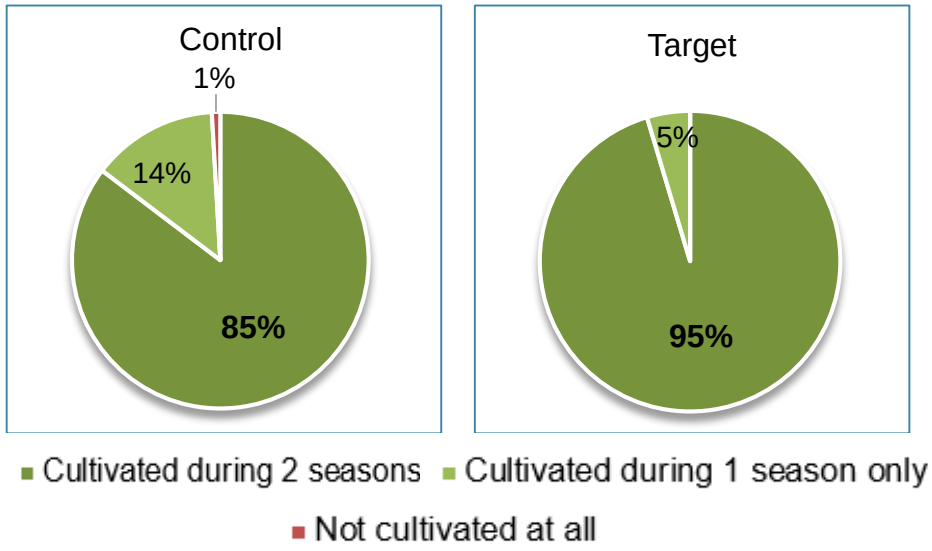
Improvement of the quality of the production thanks to the infrastructures for 3 beneficiaries only. But the deterioration has been alleviated.

Water and soil conservation infrastructures

Impact on the cultivation period

Cultivating seasons are similar between target and control groups, but the proportion that cultivates during the 2 seasons of the year is slightly higher among beneficiaries

Rainfed crops



We observe similar trends for irrigated crops: proportions are close between target and control groups, even though they are smaller than for rainfed crops.

Rice

2-season cultivation

Target **49%**

Control **38%**

Inconclusive impact on cultivation periods

The proportion of farmers cultivating during 2 seasons of the year is very close between the groups. Positive trend to check in the future: proportion is 10-point higher among target farmers.

Water and soil conservation infrastructures

Impact on crop diversification

New crops have been effectively introduced thanks to Hand in Hand India's project

59%

Beneficiaries planted new trees

New fruits: mango and lemon.
New crops: pepper (in the future thanks to silver oak plantation).
New activities: timber tree growing thanks to teak plantation.

→ **35%** target farmers plant mango vs. 1% control

4%

Beneficiaries started growing new crops

Two types: pulses and kitchen garden
Types of pulses: horse gram and red gram
Kitchen garden crops: banana, brinjal, chili, onion and maize

→ **₹ 7,566.67** extra annual revenue following a certain scenario

⊕

Positive impact on crop diversification

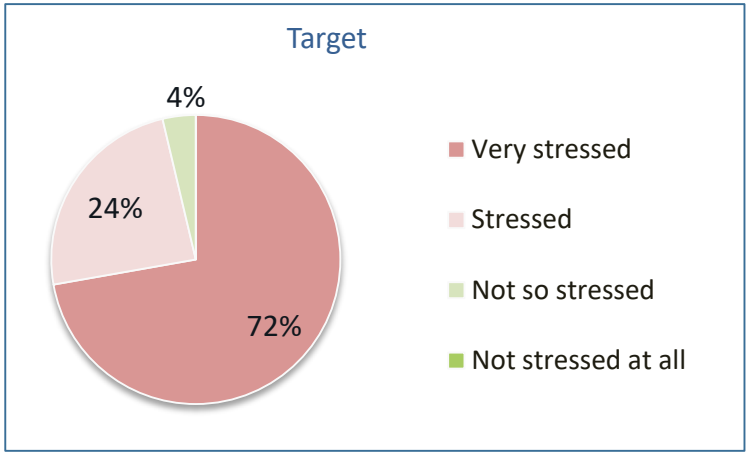
Target farmers started growing new crops due to water availability and advice from HIH.
The distribution of trees diversifies the beneficiaries' crops and activities.

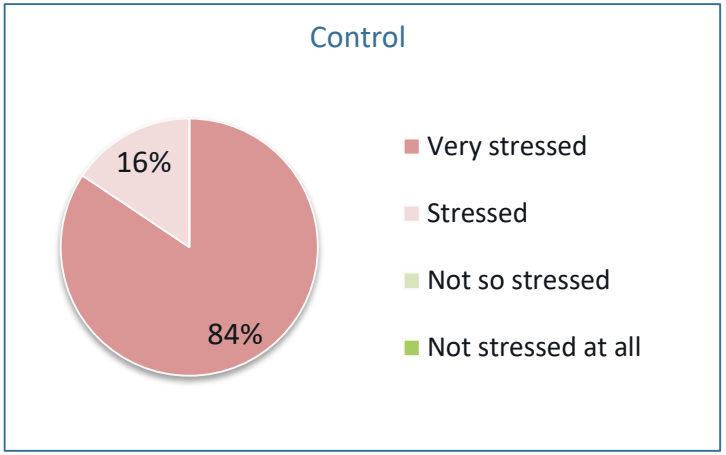
Water and soil conservation infrastructures

Impact on vulnerability to climatic events

All farmers feel vulnerable to climatic events, to a slightly lesser extent in the target group

How stressed do you feel regarding climatic events?





14 interviewees declared they felt **less stressed** than before the project at least partly thanks to the infrastructures built

Positive impact on vulnerability to climatic events (limited)

Slightly reduced stress towards climatic events for target, in comparison with control.
14 interviewees feel less stressed thanks to the infrastructures.

Water and soil conservation infrastructures

Impact on agricultural revenues

There was a sharp decrease in revenues in 2016 affecting both target and control farmers but felt by a smaller proportion of target interviewees

Sell at least a part of their production

Target	Control
77%	**35%**

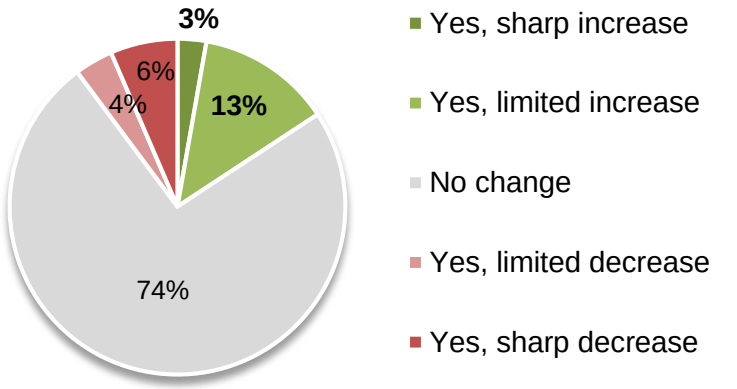
2016 median revenues:

3,000 INR target group
0 INR control group.

High drop in revenues for both groups between 2015 and 2016.

16% beneficiaries saw their revenues increase since the project and 74% saw no change

Have you seen any change in your revenues since the implementation of the project?



Inconclusive impact on agricultural revenues

Positive trend regarding perception: some beneficiaries say their revenues increased thanks to HIH.
Positive trend in the future: new crops and trees will increase revenues consequently, costs will fall.

Water and soil conservation infrastructures

Impact on food consumption

Food has not been a source of problem for either group in the past years but situation is slightly better for target farmers

Consider they have enough food		Are stressed about food supply	
Target	Control	Target	Control
99%	91%	19%	28%

> No important changes in food availability before and after the project.

#1 reason not to be stressed

- **Target**: their production is enough in 54% of cases.
- **Control**: they get enough rice from the government in 46% of cases.

"Millet and horse gram production give us enough food, and we get free rice from the government."

Positive impact on food consumption (limited)

Food is not a problem, but there is a better diversity and nutrition thanks to crop diversification and a smaller decrease in quality of production. Stress is also slightly less important among target farmers

Water and soil conservation infrastructures

Impact on migration

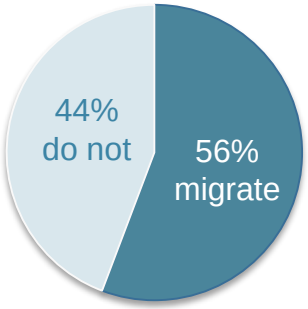
Key data

Migration in 2016

Target	Control
43%	**69%**

Because agricultural revenues are lower

(All interviewees)



	Target	Control	
Duration (months)	**3**	**2**	Medians
Number of people	**1**	**2**	
Destination	Kerala (88%) Karnataka (47%) Tamil Nadu (10%)		
Activities	Work in plantations (88%), fields/ gardens cleaning (21%), tree cutting (25%), other (18%)		
Revenues (₹ per year)	**20000**	**20000**	Median

Water and soil conservation infrastructures

Impact on migration

Migration has slightly decreased for the target group in the past few years…

No change in migration patterns		Reduction in the past few years	
Target **82%**	Control **82%**	Target **17%**	Control **7%**

… which cannot be attributed to the project yet

Too recent	1 interviewee only directly stopped because of the project

Inconclusive impact on migration

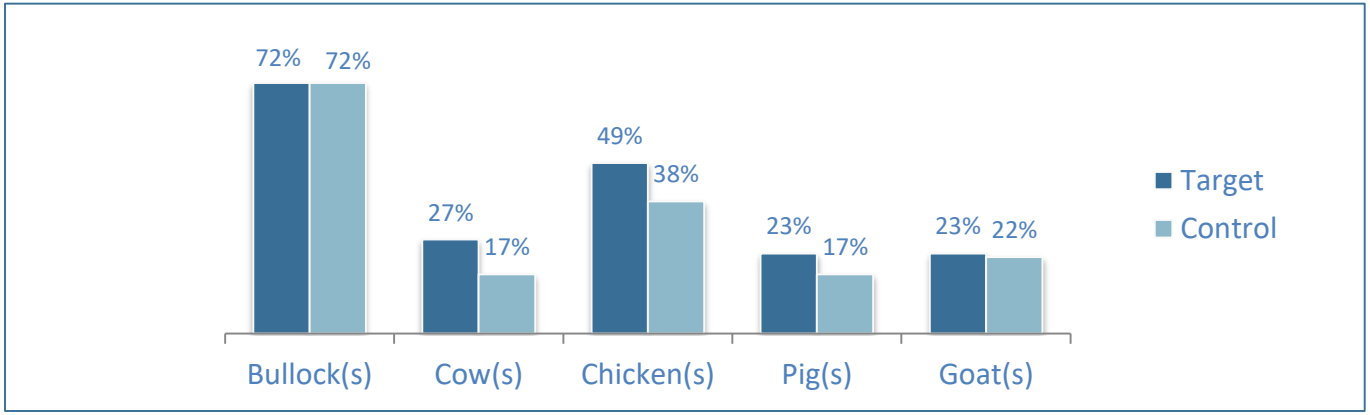
Reduction slightly higher in the target group, but this cannot be explained by the project
1 said he has not migrated this year because he was taking care of his fish culture.

Water and soil conservation infrastructures

Impact on livestock

Key data

Have livestock	Target	Control
	89%	86%



Milk

- 46% cows had produced milk in the previous week
- 27% sell it all, 45% consume and sell

Eggs

- 55% chickens produced eggs within the previous month
- 87% keep it for their own consumption

Water and soil conservation infrastructures

Impact on access to water and food for livestock

The potential impact is small as access to water and food for livestock is not critical

WATER

Main water sources
1. Water tank **2. River** **3. Well** **4. Pond**

22% of beneficiaries declared **using their new infrastructures** for livestock

	Target	Control
Has enough water	**94%**	**87%**
Feels stressed	**31%**	**39%**

No substantial change for target in perception on access to water before and after the project.

FOOD

- The lack of grass available was mentioned a few times **as stressful**
- A few cases of **livestock dying or sold** because they lacked grass, in **similar proportion** for target and control
- The potential extra grass available has **not been assessed**

Inconclusive impact on access to water and food for livestock

Access to water for animals is not critical, and in most cases, they use a water tank.

Water and soil conservation infrastructures

Other impacts on livestock

resulting from a better access to water and food

The impact on revenues and food consumption from livestock is very indirect and inconclusive

Impact on the livestock quantity and health → Impact on the livestock production → Impact on agricultural revenues; Impact on food diversity

- Decrease in the number of bullocks slightly smaller for target, increase in cows higher

Data collected on livestock can be used to understand the farmers' profiles and needs regarding livestock, and to develop livestock-related activities in the future

Inconclusive impact on revenues and food diversity resulting from livestock

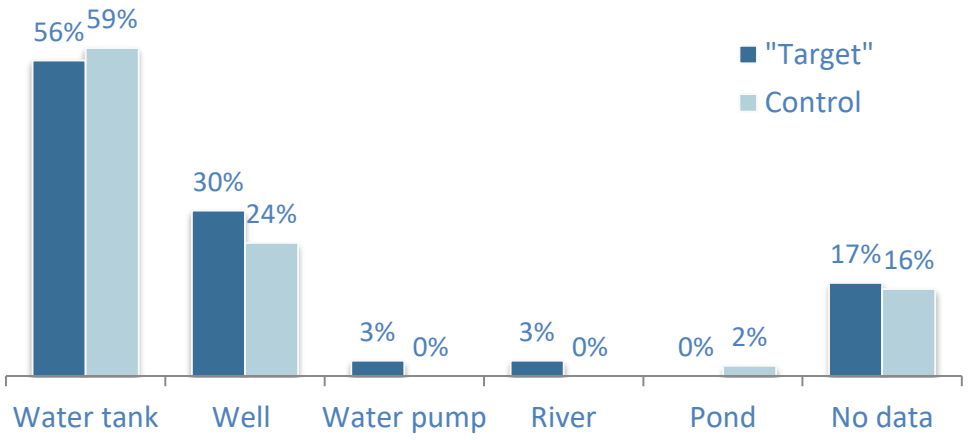
- *Similar trends for target and control in most cases*
- *Potential impact limited as access to water and food for animals is not critical for most farmers*

Water and soil conservation infrastructures

Impact on access to water for domestic purposes (1)

The potential impact is small, as the infrastructures are rarely used for domestic purposes

Key data on water sources used



16% of beneficiaries declared using their infrastructures for domestic purposes, and 4% for drinking

Water and soil conservation infrastructures

3. Impact on access to water for domestic purposes (2)

Access to water for the household is not critical and similar in both samples

Have enough water for the household

Target	Control
95%	**89%**

Stressed about water for the household

Target	Control
29%	**32%**

- Patterns are **similar for both samples**
- **No change** for beneficiaries on access to water for their household since the project was implemented

Inconclusive impact on access to water for domestic purposes

Access to water for the household is not critical and similar in both samples

Trainings and demonstrations

Key data on trainings and demonstrations

 # target interviewed

108

- Trainees: **43**
- Non-trainees: **65**

Most common trainings

- Organic Farming
- Honeybee Training
- Fish cultivation

 # trainings in 2016

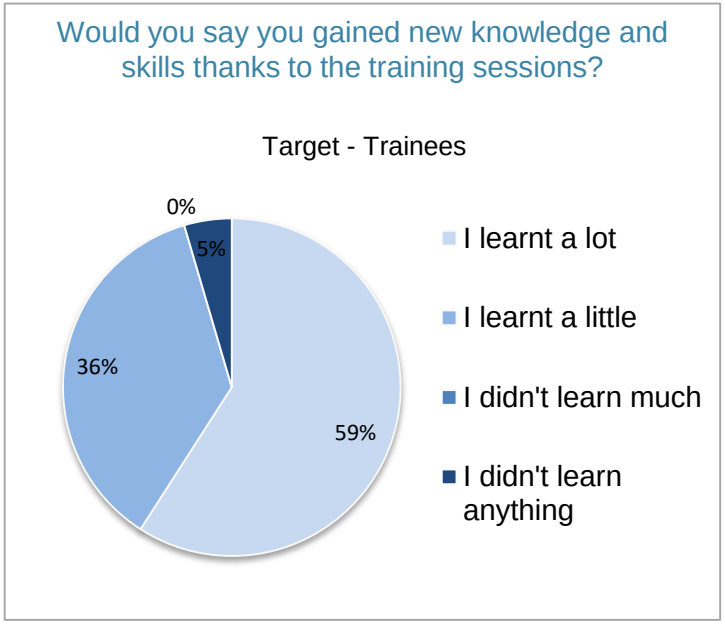
12

- Kovilur: **5**
- Nammiyampattu: **7**

Trainings and demonstrations

Impact on empowerment and knowledge

95% of farmers stated that they improved their knowledge and skills



"Hand in Hand India gave me more knowledge, more work and more diverse activities. I think it is very useful and I am happy about it."

Positive impact on empowerment through enhanced knowledge

Farmers seem to be more autonomous in managing their lands. Some trainings have also enabled them to diversify their crops and activities, hence making them be less dependant on climatic changes.

Trainings and demonstrations

Impact on self-confidence

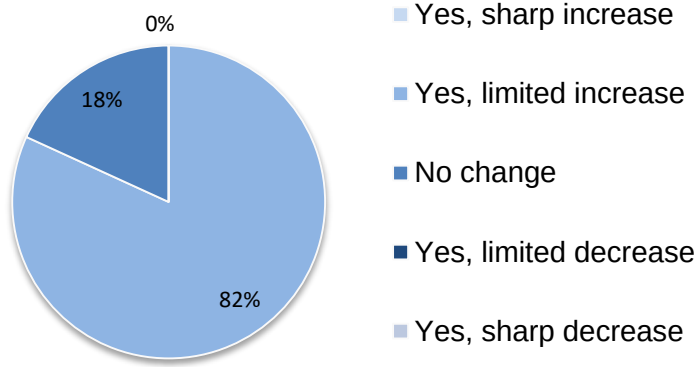
Among the trainees, 82% reported a limited increase in their self-confidence

Target	Control
79%	**58%**

Feel very self confident

Good level of production
Experience
Passion for their job
Farmer's character
Working hard

Would you say that your self-confidence has evolved since your participation to the training sessions?



Positive impact on self-confidence

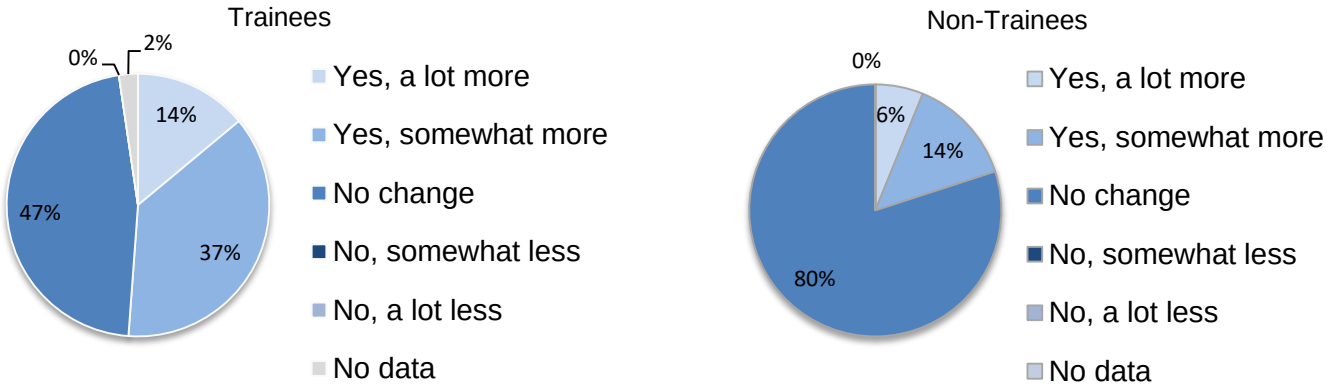
There seems to be virtuous circle between their production level, which partially depends on knowledge and skills they get from the trainings, and their self-confidence.

Trainings and demonstrations

Impact on interaction within the community

51% of the trainees mentioned that there is more interaction thanks to the trainings, against 14% for the non-trainees

Would you say there is more interaction within your community since the implementation of the watershed projects?



"There is more interaction with the neighbours about how to increase the productivity."

Positive impact on interaction within the community

Trainees reported an increase in the interaction in the community thanks to better communication, enhanced good practices sharing habits, better relationships and new encounters

Trainings and demonstrations

Impact on social integration

40% of the trainees feel more integrated thanks to the trainings vs. 20% for the non-trainees

Do you feel more integrated to your community since the implementation of the watershed projects?

Did not see any change		Feel more integrated	
Target	Control	Target	Control
51%	**80%**	**40%**	**20%**
Maintaining relationships Born in this village Never participated in a training		Better relationships Creation of groups and trainings Better communication	

"There is more interaction, so thanks to Hand in Hand India. I feel better surrounded, and I have more connections."

Positive impact on social integration

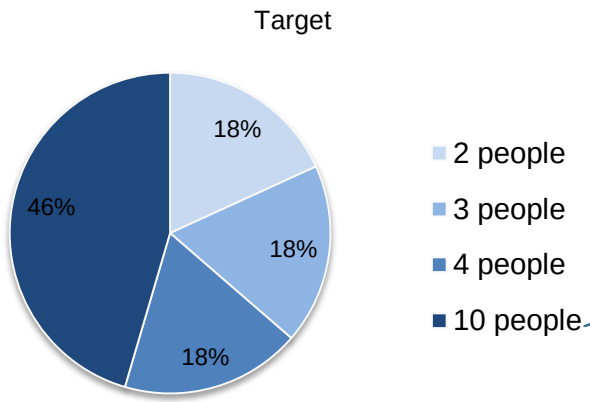
Trainings gave to the farmers an opportunity to gather, to meet and exchange.
However, there is no difference in social integration level between target and control samples.

Trainings and demonstrations

Impact on farmer's social network

58% of the trainees have met other farmers, but only a few of them maintained close relationships

How many people did you keep in close touch with?



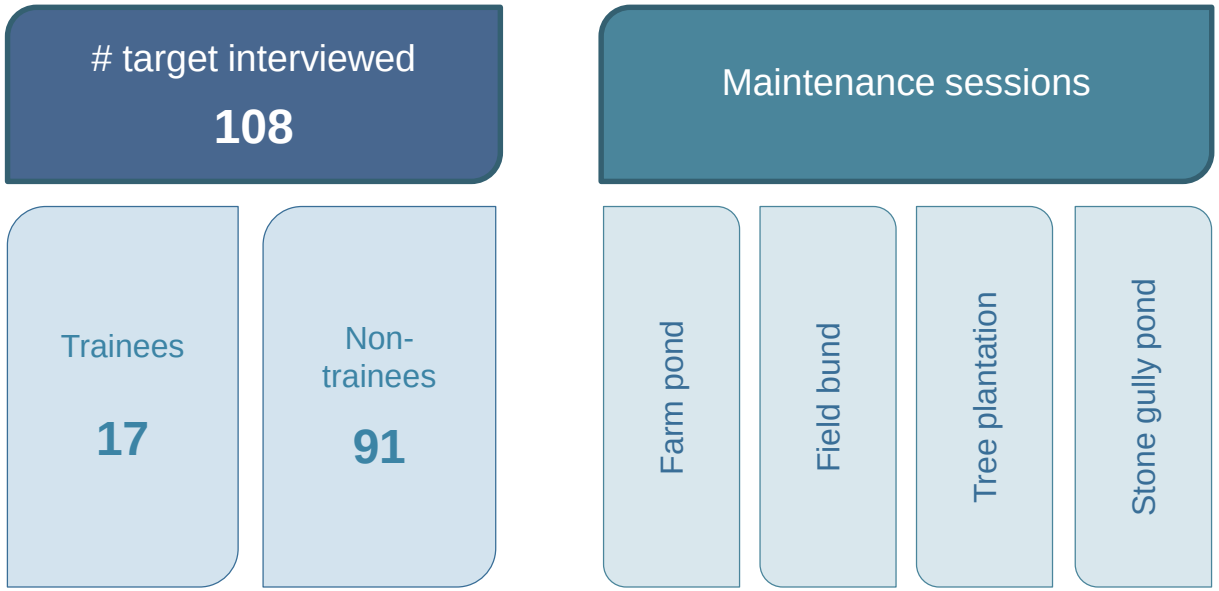
Possible confusion between the # of new encounters and the # of total encounters (be they new or not)

Inconclusive impact on farmers' social network

Only one farmer found a business partner thanks to the trainings.
Overall, the farmers get to meet some new people but do not create strong relationships.

Maintenance sessions

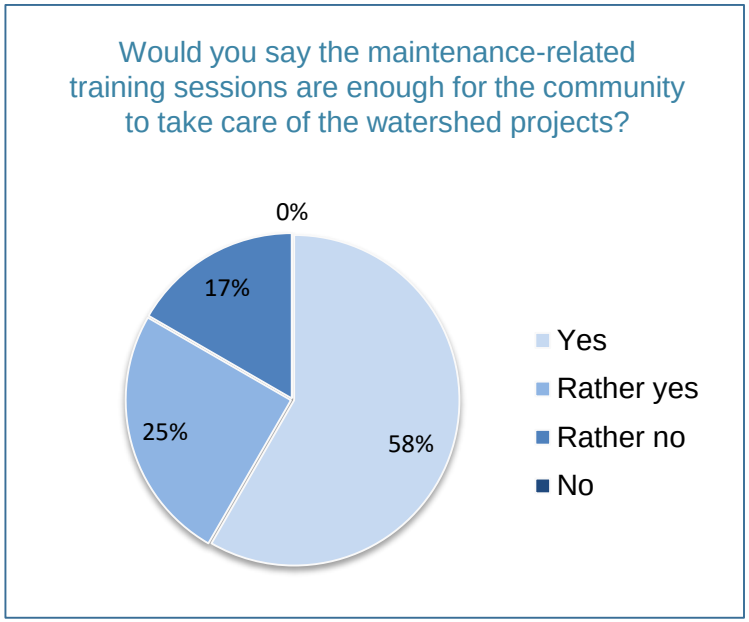
Key data on maintenance sessions



Maintenance sessions

Impact on the project sustainability and empowerment

84% farmers in the target sample did not receive any maintenance training



42% trainees are very satisfied;
58% are satisfied

New knowledge

Money generating

Motivation generating

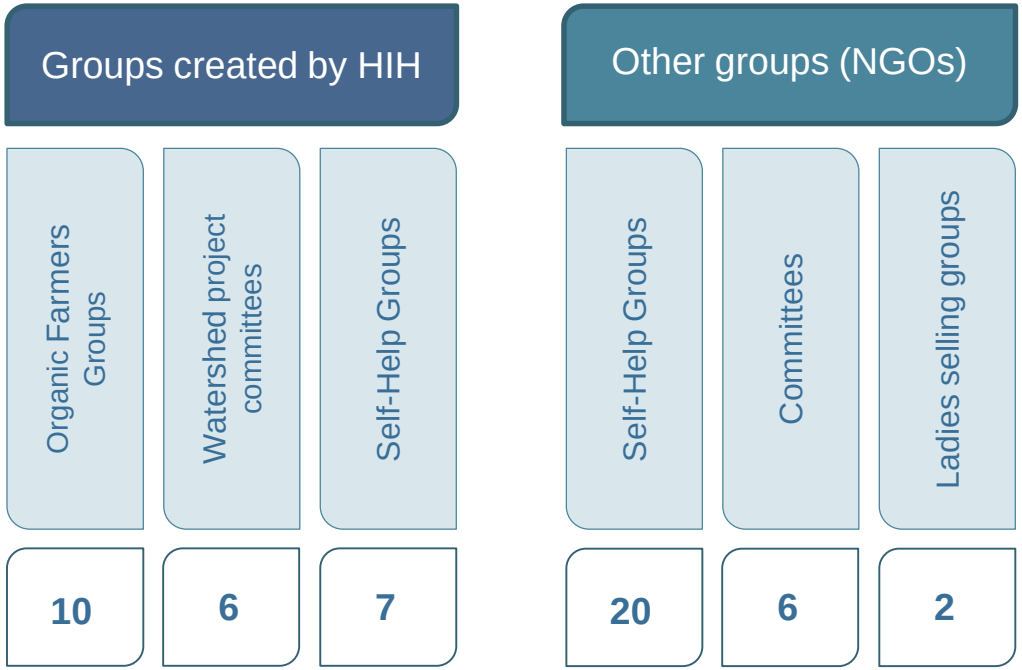
12% still need further explanations

Inconclusive impact on the project's sustainability and empowerment

Only 16% had a maintenance session after they received their water facility from Hand in Hand. Although 70% of them are satisfied, 12% need more information about maintenance.

Creation of autonomous groups

Key data on the creation of groups



Creation of autonomous groups

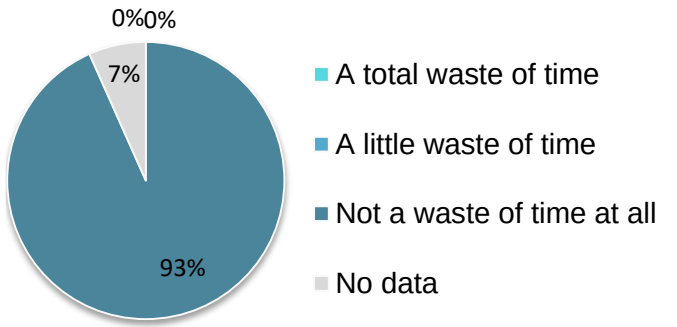
Impact on working time

None of the target interviewees considers his group involvement meetings as a waste of time

Average # meetings	
Hand in Hand's Groups	Other Groups
1.4	1.4

Average meeting duration	
Hand in Hand's Groups	Other Groups
1:30	1:45

TARGET – Members: Would you say that your participation as a group member is a waste of time?



2 control farmers reported that it was a waste of time

No negative impact on working time

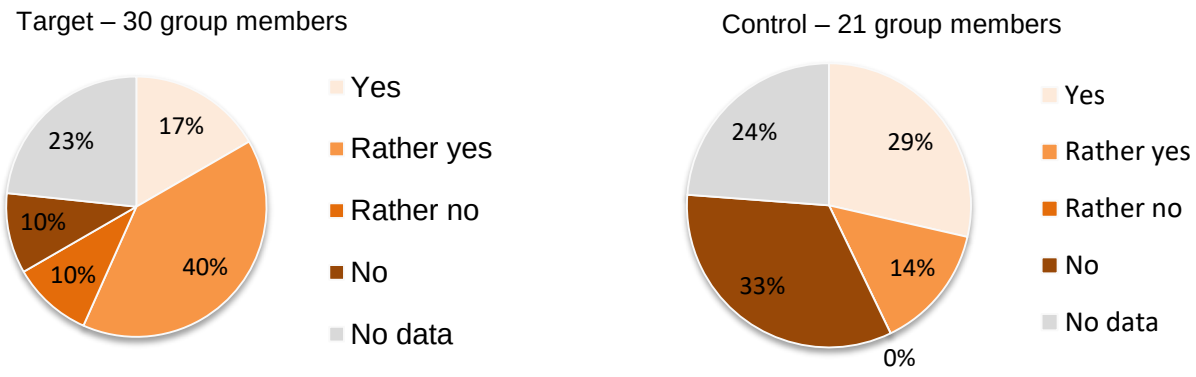
The farmers value their membership, as they gain knowledge, they can get loans, and there is more communication within the group. Besides, time spent in group meetings does not exceed 2:30 per month.

Creation of autonomous groups

Impact on good practices sharing

57% of the target group members share more practices since they became part of the group

Do you share more about good practices since you became part of this group?



Potential social impact: enhanced knowledge and skills, better land management, greater level of production, better production quality, higher level of interaction and integration in the community

Limited positive impact on good practices sharing

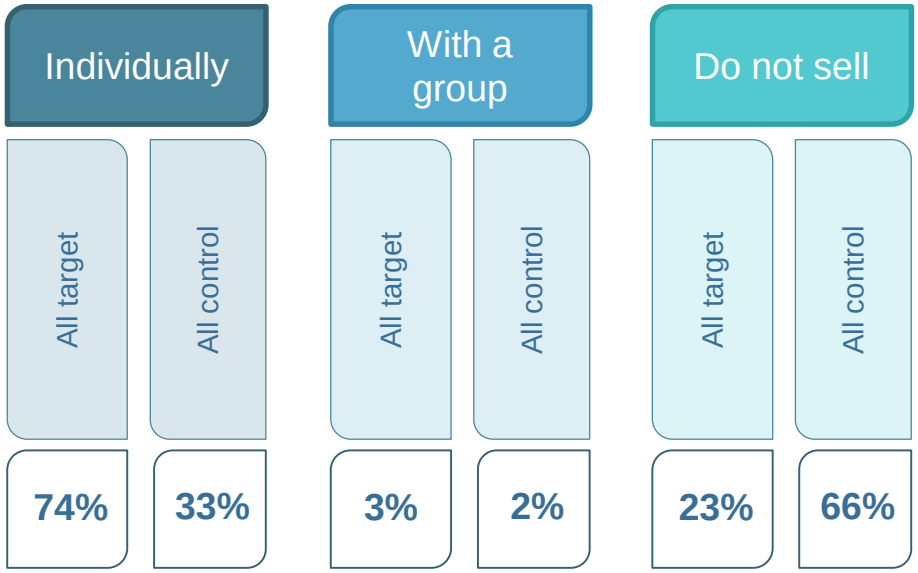
Groups initiated by HIH seem to be slightly more efficient in triggering good practice sharing than groups initiated by other institutions.

Creation of autonomous groups

Impact on negotiation power

93% of the target group members sell their production, against 69% of the target non-group members

Do you sell individually or with a group of farmers?



65% of both target and control farmers think it is **difficult** to sell.

Long distance to the market
No adequate road facilities
Low selling prices

35% farmers think it is **not so difficult** to sell

Presence of intermediary
Clients directly coming to the village

Inconclusive impact on negotiation power

Level of difficulty remains the same in both target and control groups.
The Jawadhu Hills Organic Farmers Producers Company Ltd's activity is soon to be launched.

Creation of autonomous groups

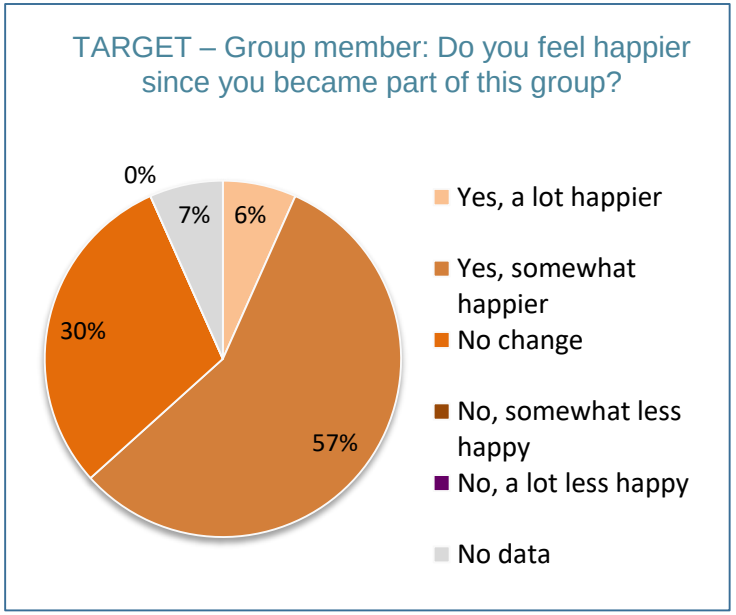
Impact on happiness

63% of the target group members feel happier since they became part of the group

83% of the target interviewees stated that they felt very happy or happy about it, against **78%** of the control interviewees

Happy with and interested in their job
Happy to get agricultural production
Happy to get money

For **15%** of the target interviewees and **27%** of the control interviewees, their level of happiness tightly depends on the level of rain and production they get



Limited positive impact on happiness (for group members)
No impact can be deduced from the comparison between target and control samples.
90% of the target group members feel very happy or happy, against 81% for non-members.

Creation of autonomous groups

Impact on responsibility

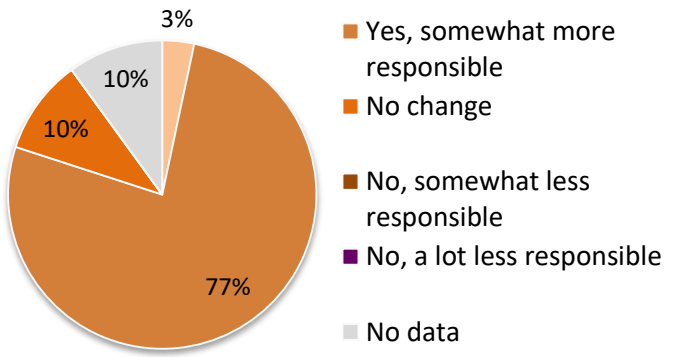
80% of target group members feel completely responsible, against 71% for target non-group members

In each of the 2 sample groups, **73%** feel completely responsible and **22%** feel partially responsible

Responsible by nature
Maintaining good relationships
Mutual help

Too young
Not interested in community matters
Focus on their own business

TARGET – Group member: Do you feel more responsible since you became part of this group?



Limited positive impact on responsibility (for group members)

The creation of autonomous groups contributed to enhancing the farmers' sense of responsibility through monthly meetings and management responsibilities, especially for board members.

Creation of autonomous groups

Impact on pride

88% of farmers in both target and control sample feel proud or very proud

Nativity
Agricultural activities
Relatives and good relationships
Mutual help within the community

No money
Not enthusiastic about community

"Compared to the city and Chennai, my village is better, I can earn more money and have a better life. »

"In this village, there are fewer mosquitos, fewer bad smells and less noise."

"I am not very proud, because I am not interested in what happens in this community. I am only focused on my own work."

87% of the target group members are very proud or proud to be part of their community, vs. **90%** for target non-group members, which let us state that the creation of groups does not have any impact on the farmers' pride

Inconclusive impact on pride

The level of pride is indeed multidimensional and is likely to depend on a lot of other criteria

Creation of autonomous groups

Impact on the community's level of conflict

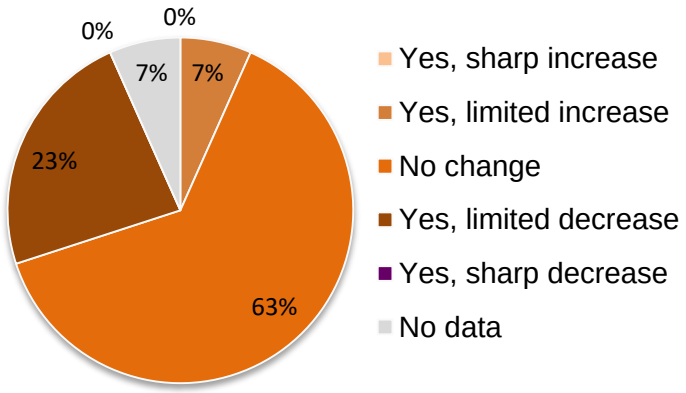
80% of the target interviewees answered that there were no disputes at all, against 68% for the control farmers

7 out of the 30 – that is 23% – target group members thought there was a limited decrease in disputes, justified by better communication and closer relationships

3 out of 30 target group members consider that the creation of groups created problems to some extent, because of **money** and **payback** problems

Mainly land-related and alcohol related disputes

TARGET – Group member: Would you say that the number of disputes has evolved since the creation of the group?



Inconclusive impact on the community's level of conflict

it remains hard to state with assurance that such a multidimensional concept can undoubtedly be linked to the Hand in Hand India projects, although there seem to be a positive trend

Awareness on organic farming

Key data on chemical fertilizers

 # farmers using chemicals
111

- Target: **63**
- Control: **48**

AV. # years using chemicals
7

Crops mostly concerned

- Little millet
- Rice
- Horse gram

Types of chemical fertilizers used

- UREA: **84%**
- P: **49%**
- DAP: **49%**

Target **66kg** / acre
Control **41kg** / acre

Awareness on organic farming

Key data on organic fertilizers

 # farmers using organic
133

Target	Control
86%	**75%**

Av. # years using chemicals
22

Crops mostly concerned

- Little millet
- Rice
- Horse gram

Types of organic fertilizers used

Cow dung	Tree leaves	Vermi Comp.
Target **90%**	Target **23%**	Target **9%**
Control **89%**	Control **5%**	Control **0%**

Awareness on organic farming

Impact on chemical fertilizers' use

Among the chemical users, 36% of the OF trainees and 40% of the OFG members are using less chemical fertilizers than before

CHEMICAL FARMERS

Trainees **42%**	Non-trainees **61%**
Members **40%**	Non-members **60%**

EVOLUTION IN USE

⊕ Using more chemicals		⊖ Using less chemicals	
Trainees **18%**	Non-trainees **7%**	Trainees **36%**	Non-trainees **15%**
Members **10%**	Non-members **8%**	Members **40%**	Non-members **15%**
Increase production + Less organic fertilizers available + No rainfall		HIH advice + Organic fertilizers availability + Soil quality	

Inconclusive impact on chemical fertilizers use

In general, trainees and members use less chemical fertilizers. However, the evolution of the use was not conclusive, even if it seems to reveal a positive trend

Awareness on organic farming

Impact on organic fertilizers' use

12 farmers benefited from organic farming trainings and 10 farmers are part of an Organic Farmer group

ORGANIC FARMERS

Trainees **100%**	Non-trainees **84%**
Members **100%**	Non-members **85%**

EVOLUTION IN USE

⊕ Using more organic fertilizers

Trainees **67%**	Non-trainees **23%**
Members **50%**	Non-members **26%**

HIH advice + Want to increase their production + More healthier

⊕ **Positive impact on organic fertilizers use**

All the trainees and the OFG members are using organic fertilizers and their use is increasing. We observe even greater positive impact among the trainees compared to OF group members

Awareness on organic farming

Impact on soil quality

Less organic farming's trainees saw a deterioration of their soil quality thanks to the organic fertilizers used

"My soil quality improved because I am using organic fertilizers since HIH gave advice"

EVOLUTION IN SOIL QUALITY

⊕ Increased soil quality		⊖ Decreased soil quality	
Trainees **25%**	Non-trainees **23%**	Trainees **8%**	Non-trainees **25%**
Members **0%**	Non-members **26%**	Members **40%**	Non-members **29%**
HIH advice + Implementation of the watershed project		No rain + Chemical fertilizers use	

Inconclusive impact on soil quality

There was no significant impact noticed for the OFG members. However, fewer trainees reported a decrease of their soil quality, due to Hand in Hand advice, which it is a noticeable trend

Awareness on organic farming

Impact on production quality

More organic farmers saw a deterioration than an amelioration of their food quality

"*The quality of my production increased. All my crops are bigger, because I'm using organic fertilizers*"

"*My products have a better taste because I am using cow dung and cow urine. Before the project, I didn't use any organic fertilizer*"

EVOLUTION IN PRODUCTION QUALITY

⊕ Increased production quality		⊖ Decreased production quality	
Trainees **25%**	Non-trainees **14%**	Trainees **17%**	Non-trainees **37%**
Members **20%**	Non-members **14%**	Members **30%**	Non-members **38%**
New irrigation system + Increasing use of organic fertilizers + Crop rotation		No rain + Chemical fertilizers use + Less livestock	

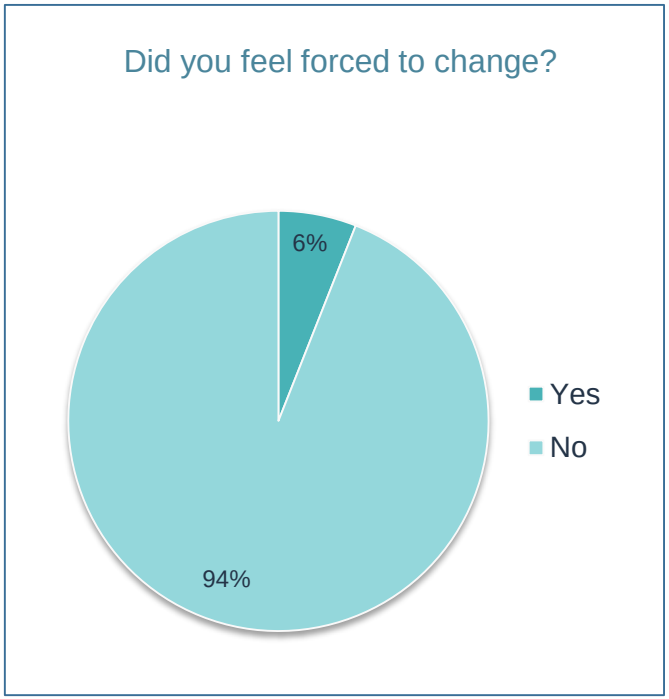
Inconclusive impact on production quality

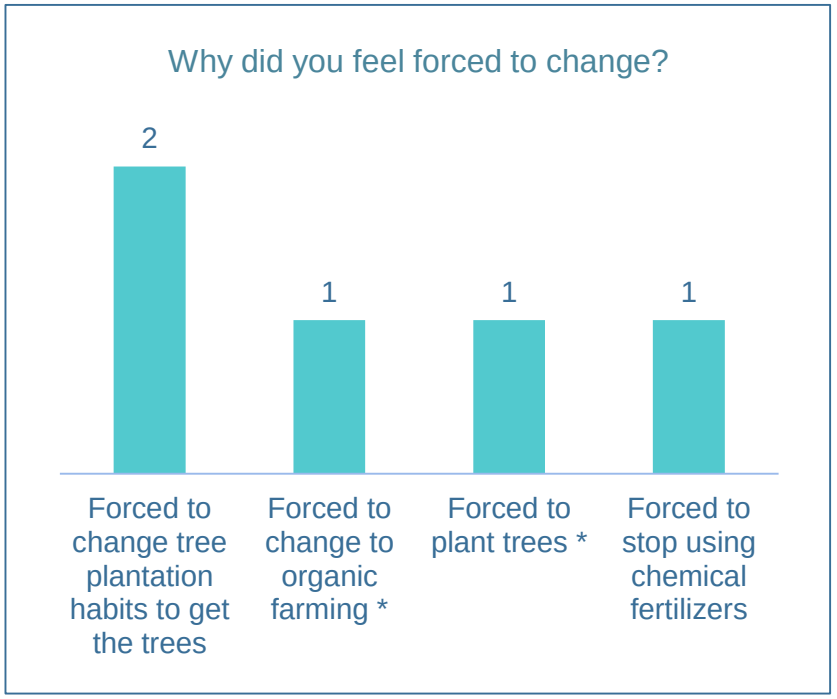
Although there is a positive trend, especially among the trainees, it is difficult to confirm positive social impact here, as differences in percentages are not conclusive and as production quality depends on various criteria.

Awareness on organic farming

Impact on feeling of being forced to change

Among the target sample, 94% farmers did not feel forced to change their agricultural habits





Non-negative impact on the feeling of being forced to change

Almost all the farmers did not have the feeling of being forced to change their habits. And when they did, most of them were happy about it.

Farmers' contribution to the watershed project

Key data on contribution

Received the watershed projects

Less than 12 months	More than 12 months
69%	31%

% of farmers who contributed financially

Yes, totally paid	Yes, partially paid	Not paid at all
30%	12%	58%

Not aware / Not asked or Money problems

% of famers who contributed physically

Yes, volunteer	No
61%	39%

Appropriation, understanding and sense of ownership

Farmers' contribution to the watershed project

Impact on pride to be involved

42% of the financial or physical contributors are very proud, and 52% are proud

"I am very proud because I participated in something that allows everyone to have more water: all animals can drink from there, people can wash their clothes"

"I am very proud I helped for free since HIH must have spent a lot of money on this project"

Positive impact on pride

Almost all the contributors were happy to financially or/and physically contribute to the project. They felt involved, which might have also an impact on appropriation of the watershed project.

Conclusions

Economic situation

None of the 3 potential negative impacts has proved true

	Intermediary impacts	Associated final impacts
Positive impacts	• Access to water for crops • Soil quality • Production quality • Crop diversification • Level of vulnerability to climatic events • Good practice sharing • Organic fertilizers use	• Increased agricultural revenues in the future • More stable agricultural revenues • Sustainable agricultural revenues
Inconclusive impacts	• Agricultural yield • Access to water for livestock • Livestock quantity and production • Cultivating periods • Level of difficulty to sell production • Chemical fertilizers use	• Unchanged agricultural revenues

Conclusive social impact Investigated impacts Deduced impacts

Conclusions

Well-being and health

	Intermediary impacts	Associated final impacts
Positive impacts	• Production quality • Crop diversification • Level of vulnerability to climatic events • Food consumption • Community interaction level	• Reduced stress • Reduced under nutrition • Reduced malnutrition • Greater solidarity • Individual social integration • Level of happiness
Inconclusive impacts	• Food diversity from livestock production • Access to water for household • Chemical fertilizers use	• Unchanged food consumption habits • Unchanged stress level • No social network extension • Unchanged community conflicts

Conclusive social impact Investigated impacts Deduced impacts

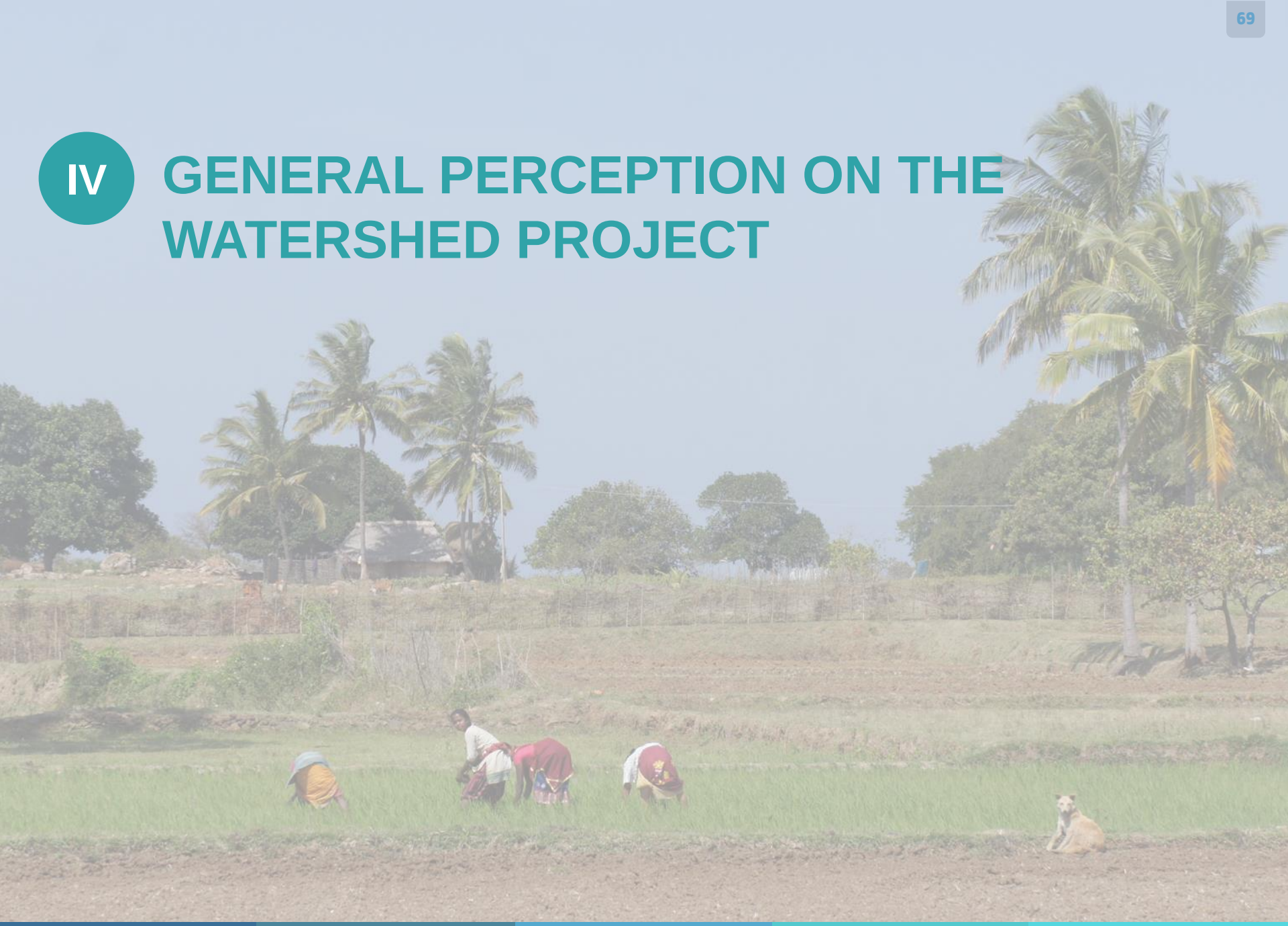
Conclusions

Empowerment

	Intermediary impacts	Associated final impacts
Positive impacts	• Further knowledge and skills from trainings • Good practice sharing • Pride to contribute	• Enhanced empowerment • Greater self-confidence • Enhanced sense of ownership
Inconclusive impacts	• Projects' maintenance	• Unchanged sense of community belonging • Unchanged sense of ownership • Unguaranteed project sustainability

Conclusive social impact Investigated impacts Deduced impacts

IV GENERAL PERCEPTION ON THE WATERSHED PROJECT



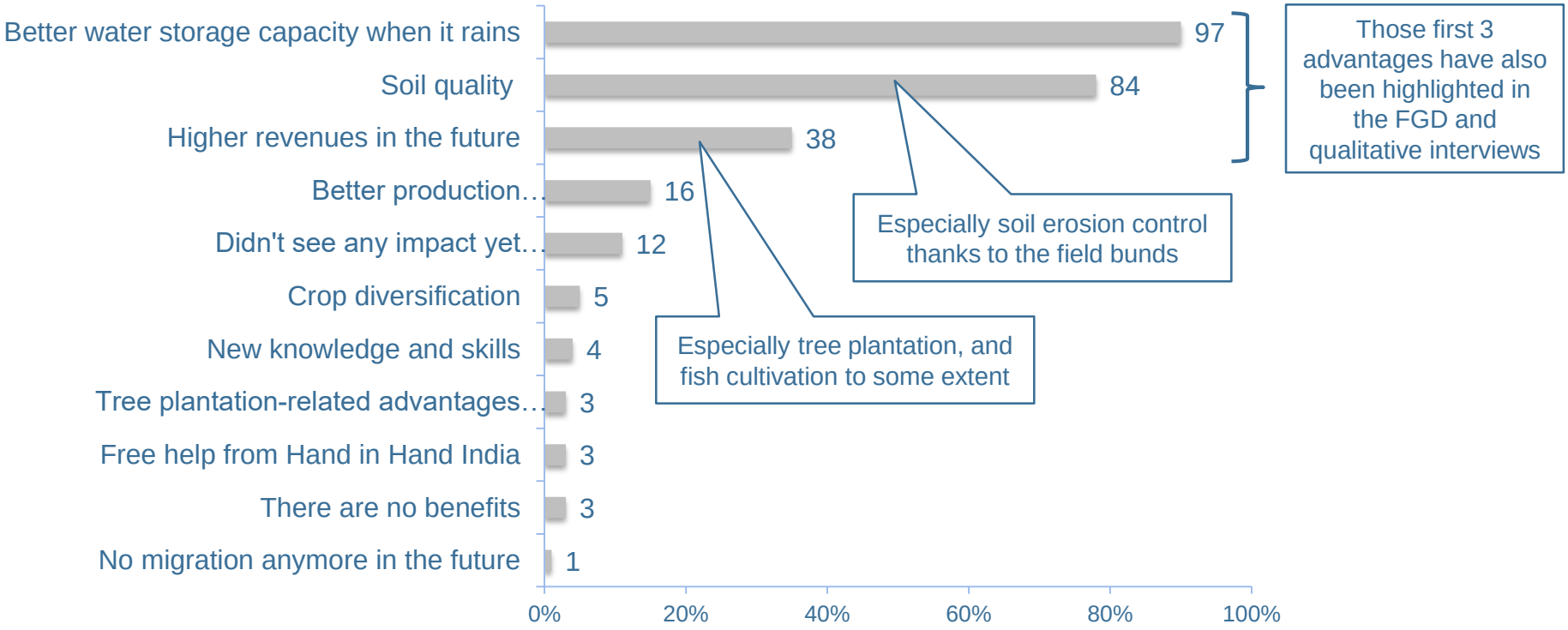
IV GENERAL PERCEPTION ON THE WATERSHED PROJECT

1. Main advantages

2. Main limits

Main advantages

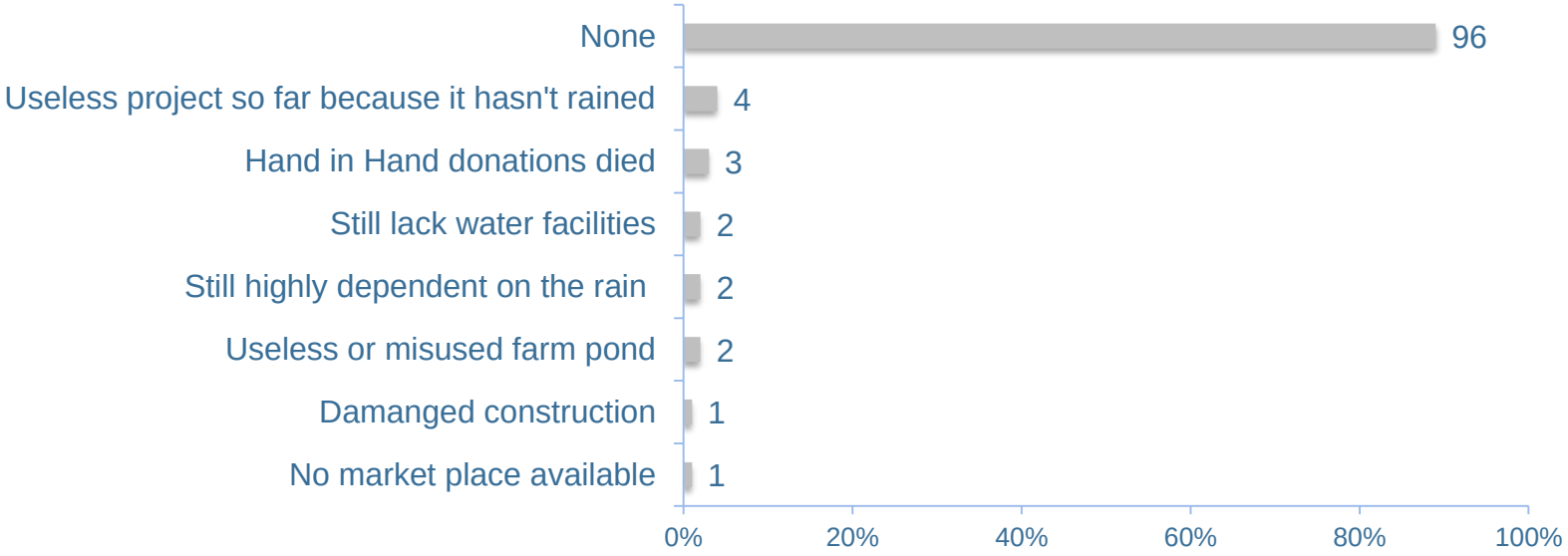
From individual questionnaires



98% of the target interviewees wish to keep participating in HIH's watershed development activities (2% did not answer), mainly because they are convinced that there has been a positive impact or there will be in the future

Main limits

From individual questionnaires



Relevant limits from all sources of information (individual questionnaires, FGD and qualitative interviews

- Most watershed projects are useless if it doesn't rain;
- The *Hand in Hand India* donations can be considered as unequal from farmer to farmer;
- The water facilities or livestock donations were – in some rather rare occasions – either damaged, unused or poorly positioned.

V STRATEGIC RECOMMENDATIONS

V STRATEGIC RECOMMENDATIONS

1. To improve existing processes

2. To take the projects further

Improve existing processes

	Why?	Status
Refine and centralize documents and information about the watershed project	• Better know your beneficiaries • Implement watershed projects more efficiently • Better coordinate teams • Set clearer objectives for the future	R
Complete, organize and formalize the project's argument towards farmers	• Ease the process of convincing farmers to get involved • Save effort and time • Generate higher degree of interest and eagerness towards the projects	R
Better market and communicate on the projects with clearer displayed objectives	• Harmonize key objectives among staff members • Send a clearer message to external stakeholders, especially investors or donors	R
Give more emphasis to projects' maintenance	• Optimize given water infrastructures • Avoid investment waste • Ensure the projects' sustainability	✓
Redefine Organic Farmers Group and Self-Help Groups	• Adapt the groups' name and purpose for greater consistence • Optimize the groups' action through more focused and specific activities per group type	✓
Communicate with other NGOs on site	• Find synergies • Implement best practices • Expand positive impact over Jawadhu Hills as a whole	R

R Recommended by AQWA ✓ Already considered by HIH ✗ Impossible

Take the project further

1 out of 3 target interviewees claimed for it

	Why?	Status
Consider land levelling	• Answer to one of the beneficiaries' claims • Optimize water retention and water distribution across fields, increase crop diversity, prevent soil erosion *(mentioned by interviewees)*	✗
Create a label for organic production	• Put forth organic production, as opposed to chemical-fertilized products • Restrain misleading sales of phony self-proclaimed organic products • Officialise and justify higher and more stable selling prices • Better promote organic farming and make it easier to convince the farmers to switch to the use of organic fertilizers • Provide Hand in Hand India with greater reliability, trust and credibility in the organic production sector	✓
Focus the donations on fast growing cash crops and daily income generating livestock	• Generate sustainable social impact from the short-term itself • Ensure greater revenues to the farmers throughout the year, on a monthly or even daily basis • Restrain migration, as the farmers will have to stay in the field all year	R
Trigger business initiatives aiming to transform local agricultural production into end products	• Increase revenues all year long by covering the whole value chain • Diversify sources of income, provide them with a greater feeling of safety • Enhance skills and knowledge on leadership and management, especially for women and landless people • Empower the communities through management and operational autonomy • Highlight local production on the market and contribute to the attractiveness of Jawadhu Hills as a reference production hub • Limit the intervention of national or multinational companies in the region by covering the whole value chain locally	R

R Recommended by AQWA

✓ Already considered by HIH

✗ Impossible

THANK YOU FOR YOUR ATTENTION!