Ref: Contract No 7171262

Collection and analysis of data on

Community-level Impact of Change Management Training for IAMWARM Project Officials

Final Report

Submitted to World Bank, Washington DC
June 2015

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ABBREVIATIONS

AED	Agri Engineering Department
AH	Animal Husbandry
CMG	Change Management Group
CMT	Change Management Training
FGD	Focus Group Discussion
GoTN	Government of Tamil Nadu
MDPU	Multi-Disciplinary Project Unit
NGO	Non-Governmental Organisation
PRA	Participatory Rural Appraisal
QPA	Quantified Participatory Assessment
SC	Scheduled Castes
ST	Scheduled Tribes
TNAU	Tamil Nadu Agricultural University
TNIAMWARM	Tamil Nadu Irrigated Agriculture Modernisation and Water Bodies Restoration and Management
TWAD	Tamil Nadu Water Supply and Drainage (Board)
WRO	Water Resources Organisation

EXECUTIVE SUMMARY

Change Management Training Programme: The Change Management (CM) training offered to the officials of the constituent State Government Departments of Tamil Nadu Irrigated Agriculture Modernization and Water-bodies Restoration and Management (TN IAMWARM) Project aimed at establishing an enabling environment and sustained demand for change through dialog, public consultations, and capacity-building at all levels of government. The World Bank supported Change Management Training at a micro level to officials working in 20 villages during 2011 and, based on the success of the experiment, decided a medium-scale rollout of the programme in 2014. This report is the assessment of the impact of training, as experienced by the community.

Methods used: The field assessment used the Quantified Participatory Assessment (QPA) technique which converts into ordinal numbers the qualitative responses from participatory assessments such as from Focus Group Discussions (FGDs) and other standard tools of Participatory Rural Appraisal (PRA).

The assessment was conducted in 150 villages selected from nine districts which are part of the project area of the TNIAMWARM Project. Of the 150, 100 are 'treatment areas', served by officials who received specialized Change Management Training, and 50 in 'control areas', served by officials who had not received such training. In addition, individual farmer interviews were also conducted to check possible biases in group responses. The findings from the earlier survey of 2012 are then compared with those from the current assessment.

Key Findings: The treatment area and the control area differ significantly in terms of the behaviour of officials: Officials who received specialized CMT are perceived by the community as having different attitudes and behaviour compared to officials who have not had such training. Specifically, villagers felt that officials with specialized CMT

i. Visit more frequently

ii. Visit more often with officials from other participating departments

iii. Visit more often whenever there is a need

iv. Meet more stakeholders including small and marginal farmers

v. Met all beneficiaries

vi. Discussed project interventions and gave information on various relevant issues such as farming, water management or overall development of the village

vii. Answered villagers' queries

viii. Listened to villagers' suggestions

In 2015, the Treatment Area officials and engineers performed better than their counterparts in the Control villages, with all differences between the two groups being statistically significant at the 99% confidence level. Crop and Livestock related Officials scored highest for all these questions and significantly higher than the Water Engineers.

Over the period 2012-2015, the percentage of those who crossed the 'benchmark' expectation has increased so also the percentage of those with 'ideal' level of performance while visiting the village.

Wide area coverage and a large portfolio of activities to be looked in to make the officials prioritise their visits to villages or farms, and when the opportunities for interventions are also limited as in this case of a phasing out Project, the officials' visits tend to be less frequent. Despite this situation, the Water Engineers as well as the Crop/Livestock related officials have visited frequently to the villages assessed. In terms of behaviour during the visits, improvements are observed for the Crop/Livestock related officials, but not in the case of Water Engineers. The fact that at the current phase of the project, there wasn't any opportunity to take in to account the suggestions of the villagers and make amendments in the project interventions might have resulted in the poor performance in terms of discussing interventions, listening to the suggestions or answering villagers' queries by the Water Engineers in the year 2015 compared to 2012, and to the other officials in 2015.

Over the period 2012-2015, the percentage of those who crossed the 'benchmark' expectation has increased so also the percentage of those with 'ideal' level of performance while attending the meetings also. The officials are no more viewed as symbols of 'authority' by the villagers when they participate in the meeting, and this change has happened from the way the officials conduct themselves in such public occasions. As perceived by the community, they tend to behave more like part of the community, sit along with the farmers, give 'respect' to farmers, discuss issues with the farmers in a 'friendly' manner, and try to help by channelizing the services from other departments also.

The concept of convergence in service delivery is giving the trained officials an edge over the untrained officials as observations from the field suggest. Besides enabling the officials develop a team spirit, this also helps the community derive better benefits from the government services with the help of the converged efforts of the officials. It may be noted here that the TN IAMWARM project has given the unique opportunity of convergence among the constituent government departments. And such an enabling environment can multiply the effects of the change management training among the officials as well as help realise a high impact at the community level.

The fact that Change Management Training has been taking place in the TN IAMWARM Project since 2010 has resulted in the presence of at least one trained official in many of the villages which were considered as 'control' for this impact assessment study. Thus, a contamination in the control villages giving positive results in terms of the parameters assessed in the study. This influence cannot be controlled as the officials are governed by the independent line departments and not by the Project.

The findings from the 2015 study, however, may have shown a greater contrast had the design and timing of the study been different. The fact that the study assessed official behaviour only during a four month reference period (from September to December 2014) meant that the works done by officials in the earlier periods were not captured. The study reference period was one where the Project was phasing out and most officials had completed their field support activities by early 2014 (after being trained in the period since 2010). Also, the agricultural season (November – January) was on-going and thus agricultural marketing officials whose role began after the harvest had no reason to be visiting the field, while Water Resources and Agricultural Engineering Department officials had already completed their visit in the pre-sowing period.

There was also high level of awareness among individual farmers from the treatment area about selected project interventions, and the fact that the Government officials emerged as the major source of information confirm the additional efforts taken by trained officials.

Conclusion:

Overall, village communities perceived a significant difference in the behaviour and attitudes of officials who had received change management training. The positive change over the period 2012-15 is an indication of the scope for spread and sustainability of the training impact.

The fact that the contrast between Treatment and Control villages is less in 2015 than in 2012 also points to a degree of 'contamination' of the sample, as officials trained since 2010 were present in most of the project villages by 2015. The difference between Treatment and Control thus only shows the impact of the two rounds of specialized CMT provided from May-September 2014 to officials in the 100 Treatment villages.

Thus, the comparison with the 2012 really implies that the CMT provided in the early part of the project (i.e., since 2010) has had a sustained impact – causing an improvement in the results from the 'control' villages in the 2015 study.

1. INTRODUCTION

1.1 TN IAMWARM PROJECT

The Tamil Nadu Irrigated Agriculture Modernization and Water-bodies Restoration and Management (TN IAMWARM) Project aims to increase irrigated agriculture productivity in selected sub-basins of Tamil Nadu, through irrigation systems modernization, agricultural intensification and diversification, institutional modernization, and sustainable water resources management. The project is being implemented through eight departments of Government of Tamil Nadu in 63 sub basins of the State. The project is supported by the World Bank with a total outlay of US$ 566 Million, and is in implementation since the year 2007. The main beneficiaries are farmers and the primary aim is to enable them to gain more profit for every drop of irrigated water.

The Project Development Objective is to improve irrigation service delivery and productivity of irrigated agriculture with effective integrated water resources management in a river basin / sub-basin frame work. Specifically the project addresses the issues:

1. Improving irrigation service delivery including adoption of modern water waving irrigation technologies and agricultural practices
2. Agricultural intensification and diversification
3. Enhancing market access and agri-business opportunities
4. Strengthening institutions dealing with water resources management

One distinction of this Project is its multi-sectoral approach to the public service delivery involving the seven Departments of the State Government related to water and food related and one University that work on a convergence mode in the implementation of the project. The Water Resources Organization functions as a nodal agency and coordinates with the other multi-sectoral departments such as Agriculture, Horticulture and Plantation Crops, Agricultural Engineering, Agricultural Marketing and Agri Business, Animal Husbandry and Dairying, Fisheries and the Tamil Nadu Agricultural University. The project is proposed to cover an *ayacut* area of 6.17 lakh hectares in the 63 selected sub basins of Tamil Nadu over a period of six years from April 2007. Now, the project has completed its original tenure of 6 years and is in its extended period, till June 2015.

1.2 DEMOCRATIZING DECISION MAKING

THE CHANGE MANAGEMENT INITIATIVE

Reforming the government system to make it people friendly and restructuring the development planning process towards a demand responsive agenda have found importance and priority of various governments as well as international financial institutions. The Change Management (CM) interventions that have been implemented in a few departments of the Government of Tamil Nadu are aimed at establishing an enabling environment and sustained demand for change through dialog, public consultations, and capacity-building at all levels of government. Activities are focused on initiating a critical process of inquiry and self-reflection at the individual level in the public officials, and to build internal constituencies of support for the institutional changes being implemented by the respective agencies. In series of internal workshops which are facilitated by professional trainers from the technical support agency Centre of Excellence for Change, interactions and discussions of participant project officials are focused on the need for a transformation in their role, to go beyond their traditional role as designers and implementers to becoming facilitators of community partnership and enablers of building bottoms-up process in their respective institutions.

The Change Management initiative has been adopted from a pilot-level initiative conducted in the Tamil Nadu Water and Drainage Board, where independent evaluations indicated a significant positive correlation between the change management interventions and project outcomes (reduction in O&M costs of water supply schemes, reductions in overall cost of water supply schemes, better targeting of poor and socially disadvantaged populations, etc) (Pragmatix and ISD 2007). The dissemination of pilot results has sparked national and international interest, as an example of the potential of "soft" interventions for enhancing public service delivery. Subsequently, the World Bank financed a micro-scale (20 villages) evaluation of this initiative in 2011 that assessed the two dimensions of impact such as (i) Change in values (measured by Hall-Tonna Inventory – HTI), and (ii) Change in attitude and behaviour (as measured by community surveys of populations served by the project implementing officials). The HTI which measured the change in values showed a significant shift in their internal values (Values Technology 2012). The results from community level assessment showed a significant positive change in the attitude and behaviors of the irrigation and agriculture department officials who undergo the behavior change interventions has been perceived by the communities (ISD 2012).

Having observed the results, the World Bank financed a medium-scale roll-out of this initiative in the Tamil Nadu IAMWARM Project area (GRF 14856- Assessing the Potential of Behavior

Change in Public Officials for Improving Irrigation Service Delivery)in order to assess the feasibility of implementing such behavior-focused approaches on large scale.

CHANGE MANAGEMENT TRAINING FOR THE OFFICIALS OF TN IAMWARM

The Bank team worked with the Government counterparts/ TN IAMWARM-MDPU in ensuring a pilot design with necessary controls so that a valid impact evaluation can be carried out for the whole exercise. The pilot was structured such that appropriately selected cohorts of villages are targeted for behaviour change ("target group") interventions and to serve as control ("control group").

Thus, the team has arrived at one hundred model villages which were treated as Treatment (Target) group and fifty as Control group. The CM Workshops were organised for the officials working in these 100 model villages. These selected 100 villages spread over 8 districts in the IAM WARM Project area in the State. The participants for each batch were selected in such a way that they from one a 'TEAM' who work together in one geographical area. This pragmatic approach was to help them understand the nuances of the new concept, imbibe them in their minds, and implement their interventions with a renewed and improvised manner. Hence the participants were chosen District wise and in particular at Block level. Thus, there were around 23 teams formed and undergone the training. The Training Workshops were held in 14 batches at two training centres, one at Chennai and the other at Madurai. The workshops covered two modules, the first one considered as 'Core' and the second as 'Follow-Up'. The Core workshop held for 3 days duration and the Follow-Up held for two days after an interval of two months from the Core workshop.

Box 1.1

The Change Management Training Workshops Objectives

- To inculcate behavioural changes amongst the Officials of TNIAMWARM Project by revisiting their attitudes and perspectives
- To help them to redefine their roles and responsibilities and to effect shifts in organizational values
- To strengthen the 'Team Building 'skills and preparing action points for change
- To ensure participation of the stakeholders/community
- To empower the Officials of TN-IAMWARM Project in change management ideals in order to enhance the service delivery to the needy and unreached people in their respective areas viz., villages.

Also, the training programme is intended to facilitate the participants to

i) critically analyse the present context of service delivery,
ii) decide on the path of transformation/change,
iii) evolve new paradigms,

The activity under the Grant included impact evaluation along two complementing dimensions, for target and control groups. The two dimensions are:

(a) Change in attitude and behaviour of project implementing officials (as measured by community surveys of populations served), between target and control villages.

(b) Project performance, as measured by key M&E indicators, between target and control villages.

This report pertains to the first dimension, the impact evaluation of Change Management Training on the attitude and behaviour of officials as reflected in the communities served by the officials, and captured through community survey.

1.3 OVERVIEW OF IMPACT ASSESSMENT

1.3.1 Approach

Impact of the CMT is assessed in this study through matching the behavioural aspects of trained and untrained officials. The group of trained officials are termed in the study as 'Treatment' and the untrained officials as 'Control'. Further, a comparative analysis of the behaviours with that of a similar sample in the year 2012 is attempted to ascertain the changes over a period of time.

The field assessment was done through Quantified Participatory Assessment (QPA), a participatory technique that converts the qualitative responses in to an ordinal scoring system. More details about QPA are presented in the Annexure 1.

The QPA format was developed for the field assessment in consultation with the Multi-Disciplinary Project Unit, the project implementation unit of the TN IAMWARM as per the agreed terms with the World Bank. The formats focused on information pertaining to the behaviour of officials in terms of frequency and nature of village visits, how do they behave while visiting the villages and how do they conduct themselves in village level meeting. In addition to the descriptive ordinal scoring method used in QPA, there were questions in binary form about the same issues. This helped in cross checking the responses and controlling the quality of information. Besides, the binary questions eased the group in giving the scores for the subsequent question. Further, individual level interviews were also conducted to corroborate the results from the group discussion using the same format with appropriate modifications to suit the individuals' situation. These formats were translated in to Tamil and field tested.

1.3.2 Sample

The area selected for the study include 100 villages where the officials working are trained (Treatment villages) and 50 villages where the officials are not trained (Control villages) under CM Training. The villages are selected from similar geo-climatic zones and have more or less the similar socio-economic attributes.

Table 1.1
Selected characteristics of the sample

Characteristics	**Control N=50**	**Treatment N=100**
Average Distance from nearest town to the village in Kms	9.9	9.6
Average Distance from arterial road with frequent transport facilities in Kms	3.2	3.2
Average Land Holdings in Hectares	1.06	1.17
Primarily Agriculture villages	71%	85%
Primarily Horticulture villages	9%	7%
Primarily Animal Husbandry villages	33%	23%
Marginal land size farmers (less than 1 hectare)	36%	33%
Small land size farmers (1 hectare - up to 2 hectares)	18%	16%
Medium and large land size farmers (above 2 hectares)	8%	12%

The Focus Group Discussion (FGD) for the QPA was held among a group of up to 15 members selected at each village. The 15 members comprised three purposively selected and (up to) 12 randomly selected members. The three members purposively selected are Village Panchayat President, Water User Association President and Lead Farmer. The other 12 members are randomly selected from the beneficiaries of programmes implemented under the TN IAMWARM by its constituent departments. Detailed description of the sampling method adopted is presented in Annexure 2. There were 4911 beneficiaries listed from various departments, from which a total number of 1807 farmers were selected randomly. Including the 450 members (comprising VPPs, WUA Ps and Lead Farmers), a total of 2257 individuals were contacted for field assessment. Among them 2189 participated in the FGDs and the composition is as shown in the table below (Table 1.2).

Table 1.2

Category of participants in the survey

Category	Control N1=772	Treatment N2 = 1417	Overall N=2189
Village Panchayat President	3%	4%	4%
Water Usage Association President	5%	5%	5%
Lead Farmer	11%	8%	9%
Farmer	80%	83%	82%
Total	100%	100%	100%

Table 1.3

Department-wise beneficiaries

Departments	**No of villages with no beneficiaries**			**Beneficiaries in the sample**
	Control (N1=50)	**Treatment (N2=100)**	**Overall (N=150)**	
Department of Agriculture	2%	0%	1%	34%
Department of Horticulture	32%	9%	17%	27%
Agri Engineering Department	52%	36%	41%	8%
Animal Husbandry Department	52%	67%	62%	19%
TN Agriculture University	46%	58%	54%	1%
WUA & VP President, Lead Farmers				11%

1.3.3 Team

The team from ISD worked in consultation with Dr A J James, Independent Consultant for the assignment. The ISD Team comprised Field Assessment Team, Data Entry Operators and Data Entry Back-checkers besides the Management Team (comprising Dr. James , Dr. Dushyant Badal (database expert) and Dr. Rema Saraswathy of ISD).

The Field Assessment Team comprised 27 members of whom 24 were Team Members in eight teams altogether and 3 Field Supervisors who were in-charge of 3, 3, and 2 Field Teams respectively (Annexure 3). The field assessment was coordinated by the Research Coordinator. The Team Members were given 6 – days residential training in Field Assessment with special focus on QPA. Detailed report of the training workshop is annexed (Annexure 4).

The Data Entry Operators numbering 24 were responsible for data translation from Tamil to English and data entry in the MS Access forms. This electronic data was then back-checked by

another 6 Back-checkers who ensured no information is missed in the electronic form and the translations captured the information correct.

1.3.4 Time Period

Although the study period commenced from May 2014, the field assessment had to go along with the training schedule and its response time. Thus, the field assessment after the six days training for the field team started on 3 November 2014 and ended by 9 January 2015. The village-wise dates and teams are provided in Annexure 5. However, the reference period for the QPA is four months (September – December 2014). This reference was fixed during a planning meeting with Dr. Sanjay Pahuja of the World Bank, and officials from the CEC and the MDPU in Chennai in August 2014, based on the date of last batch of training, and giving at least a month's gap for the start of field activities.

1.3.5 Quality Control

Different measures were taken to ensure the quality of data with an internal quality assurance protocol and an external Quality Controller. The internal quality assurance used Spot checking, and checking the formats for its completeness and correctness by the Supervisors. A second level of checking was carried out by the Research Coordinator who visited randomly selected 10% Villages and by checking the correctness and completeness of the formats 100%. Team Leader verified the data based on a sample 10%.

Besides the internal system, a field process to ensure quality assurance and control was followed by an external Quality Controller. He had followed a systematic process through the different stages of the study; Pre-Data Collection, During Data Collection and Post Data Collection and made initial, concurrent and post data collection visits to field to validate the data collection(detailed report of which is in the annexure – Annexure 6).

The Management Team that met periodically and reviewed the progress, guided the Field Team throughout the process.

1.3.6 Presentation of Findings

The data consolidated and analysed, and the summary tables are presented at appropriate sections. The main findings derived from the data are presented in the main text as horizontal bar charts along with the value of each category for easy understanding. The charts also clearly depict the difference between the Control and Treatment, and for the two time points; 2012 and 2015. The year 2012 refers to the data point of the ISD 2012 study and 2015 refers to the present study.

Differences between the Control and Treatment are tested for statistical significance using statistical testing procedures. (see Annexure 7)

1.3.7 Caveats

Study reference period:

The study reference period is three months prior to the survey and it is during September- December depending on the date of field visit.

Many of the project activities have taken place well in advance and as the period is at the fag-end of the project cycle there was limited opportunity for the Officials to implement any project intervention at the field level.

Lack of rain for consecutive years and the season Sept-Dec determine the way some Departments work. For example, lack of rain and water in the water bodies limit the opportunity for the Water Engineers to interact with the community or to have any intervention done.

Overlap in the training:

The Change Management Trainings have been conducted for the officials of the TN IAMWARM Project since the year 2010 at various levels.

There are chances for frequent transfer of officials and this has caused a contamination in the 'control' villages.

TNIAMWARM Model villages:

Around 400 villages were selected under the TNIAMWARM Project as 'Model villages' and including the control and the treatment villages numbering 150 selected for this study was part of the 'Model villages'. This may reflect in the narrow difference in performance between 'Control' and 'Treatment'.

The field assessment found that four Blocks with 12 villages listed in it as Control villages had at least one trained official working and hence these Blocks are reclassified under the Treatment. Similarly, three Blocks with 7 villages listed under 'Treatment' had no trained officials working in that area and hence they are re-classified under 'Control'. For another 5 villages, the FGDs were interrupted due to diverged personal interests of the participants; and the facts were found to be underreported and hence not taken in to the analysis. The reclassification resulted in 99 villages under 'Treatment' and 45 villages under 'Control'; and the results presented in the section pertain to the 144 villages. The list of final villages is in Annexure 8.

2. KEY FINDINGS

2.1 INTRODUCTION

The main findings from the FGDs are presented in this section under four heads: (1) the community's level of awareness about water, crop and livestock related interventions, (2) how often did the official visit the village, (3) how did the official behave during the village visit, and (4) how did the official behave in the village level meetings.

Note that the following constituent departments of the TN IAMWARM Project are clubbed as follows, for the purpose of the assessment:

Box 2.1
Grouping of Departments under the study

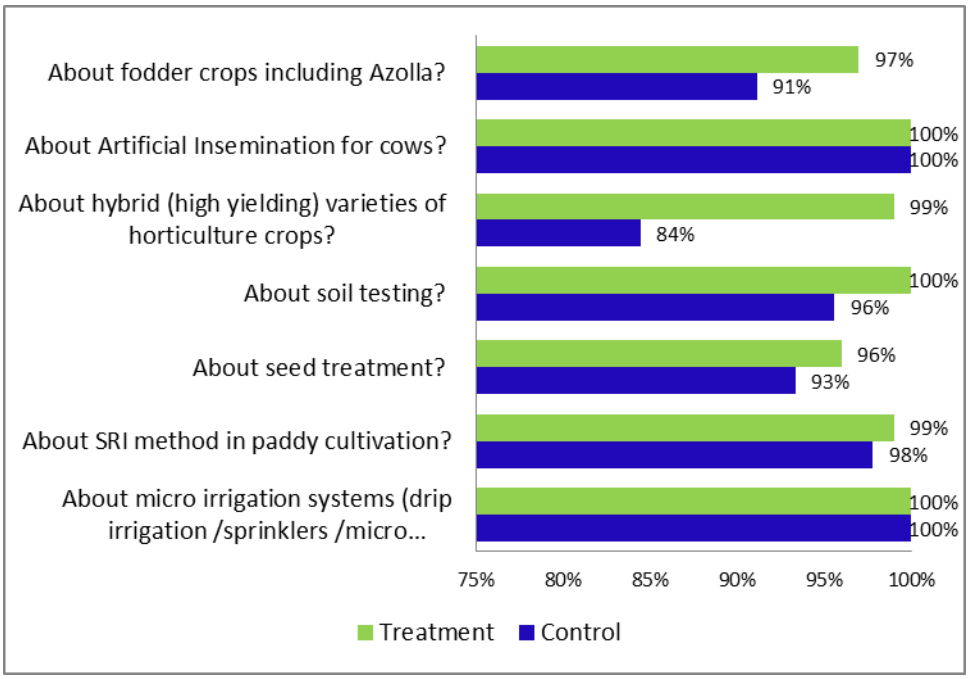
Departments	Group 2012 study	Group in present study
Water Resources	Water related officials (Water Engineers)	Water related officials (Water Engineers)
Agri-Engineering		
Agriculture	Crop related officials	Crop & Livestock related officials related officials
Horticulture		
TN Agriculture University		
Agri-Business and Marketing		
Fisheries	Livestock related officials	
Animal Husbandry		

2.1.1 Awareness about the project interventions

The data showed a high level of awareness among the community with reference to all the chosen interventions such as micro irrigations systems, SRI in paddy cultivation, high yielding varieties of horticulture crops, artificial insemination for cows and new varieties of fodder crops, soil testing and seed treatment. The community in the Treatment area showed slightly higher levels than those in Control area wherever they both are not equal and 100% (Figure 2.1).

Figure 2.1

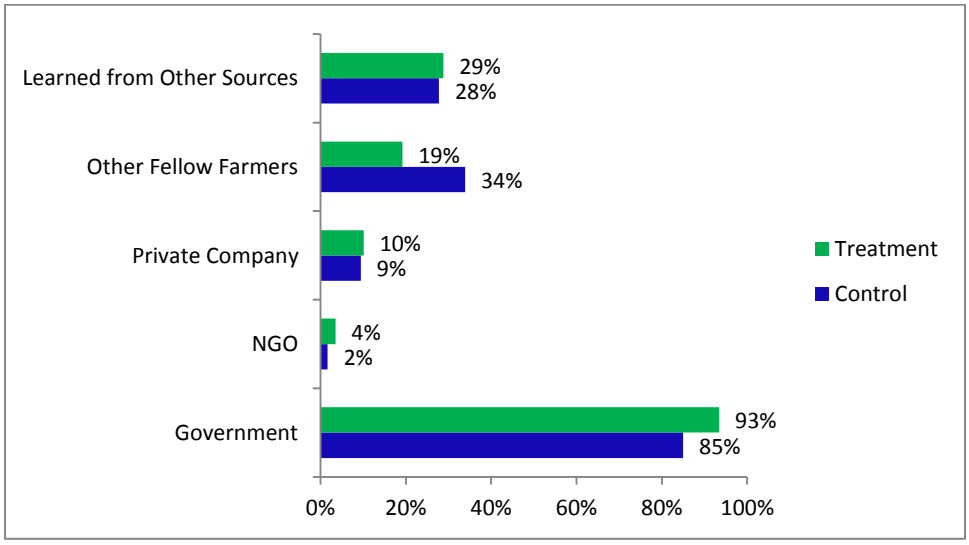
Awareness about selected project interventions



Further, the multiple responses received from the community regarding the source of knowledge on these interventions, Government sources and mainly officers as the largest reported source, both in Treatment and in Control villages (Figure 2.2). The Treatment area shows a higher rate of response for the Government Officers indicating that the increased interaction of the Officers in this area could be one reason for the higher level of knowledge in the community level.

Figure 2. 2

Source of Information on farm interventions



2.2. IMPRESSION REGARDING GOVERNMENT OFFICIALS

2.2.1 FREQUENCY OF VISITS

To enable a change through engaging the community in a participatory process it is essential that the official visit the community frequently and meet all the stakeholders. To facilitate effective technology transfer aiming at sustainable water management and increasing the agriculture production, converged activities are essential and the official should also work with officials from other department to have a common understanding of the issues at grass root level.

2.2.1.1 How often did the official visit the village?

This question was discussed with the community, first giving them an opportunity to record 'yes or no' responses. The figure below (Figure 2.3) shows the response 'yes' to the different questions related to the official's visit such as: i. Did the officials come whenever necessary for the farmers/village?, ii. Did the officials meet all beneficiaries, including small and marginal farmers?, iii. Did these officials visit more than once?, and, iv. Did the officials visit with officials from other Departments? The Treatment area officials and engineers performed better than their counterparts in the Control villages. Crop and livestock related Officials scored highest for all these questions and significantly higher than the Water Engineers.

Figure 2.3

How often did the Engineers & Officials visit the village? Based on binary response

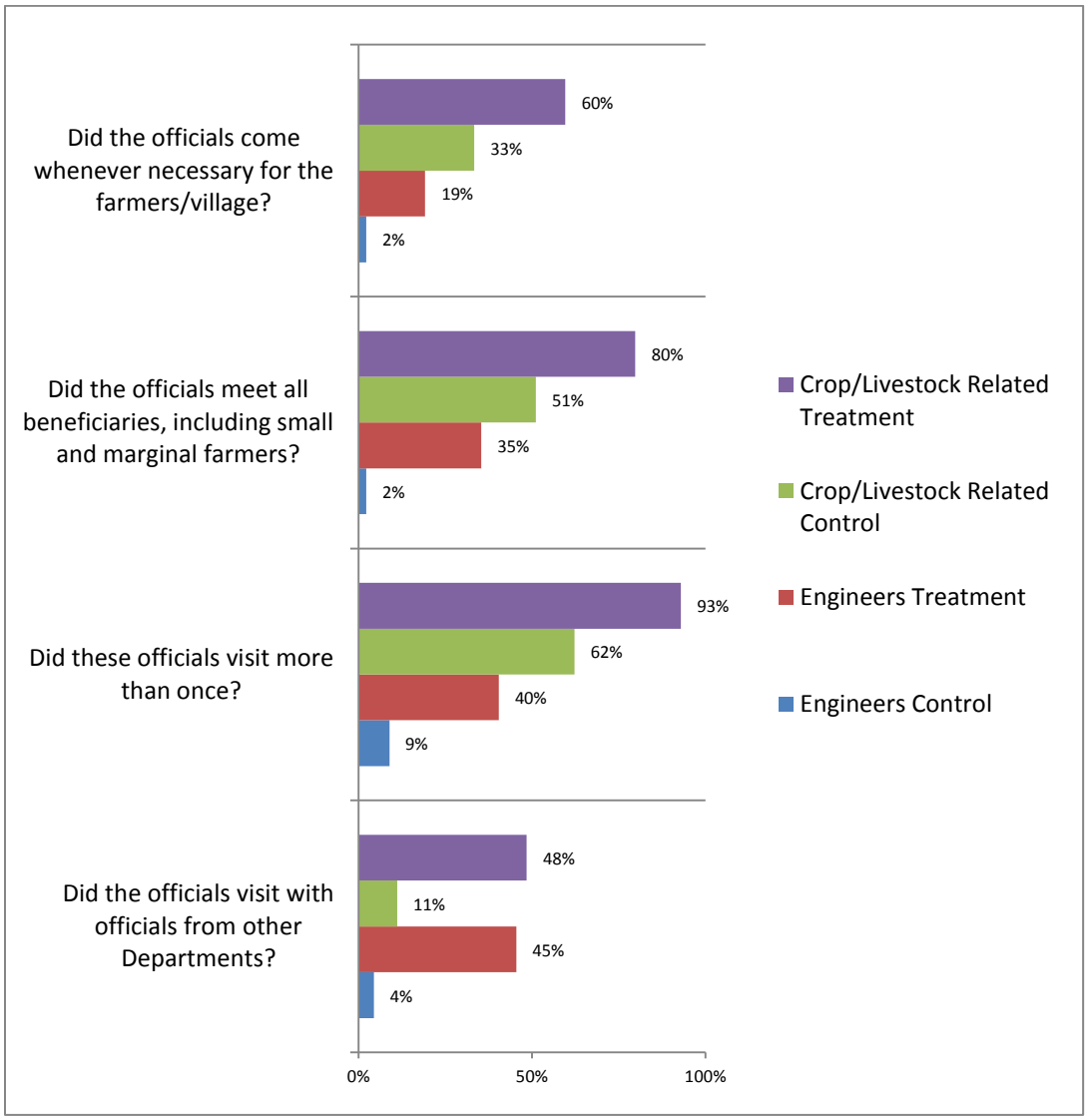


Figure 2.4
How often did the official visit the village? Water Engineers by their Ordinal Score

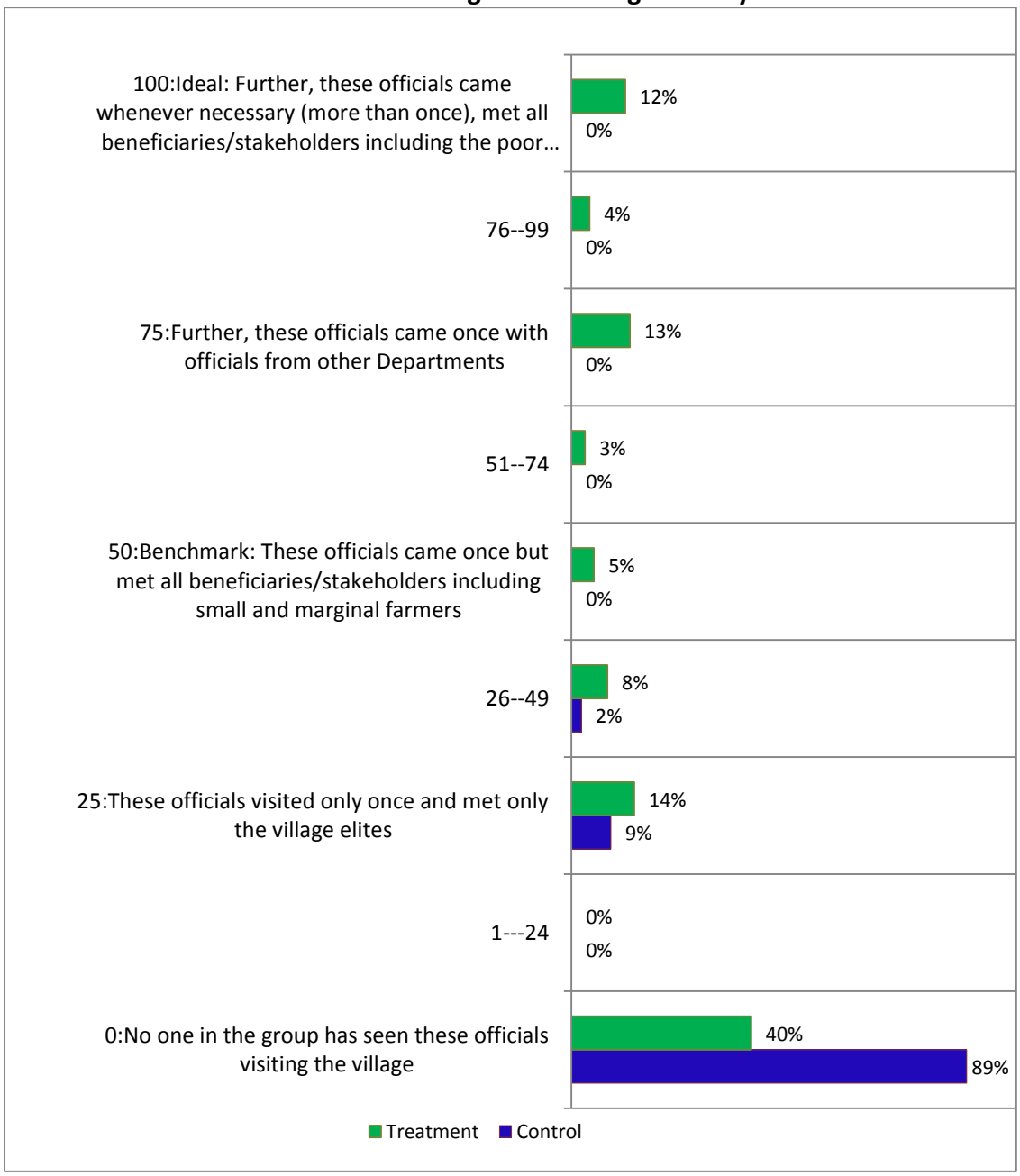


Figure 2.5
How often did the official visit the village? Crop &Livestock related officials by their Ordinal Score

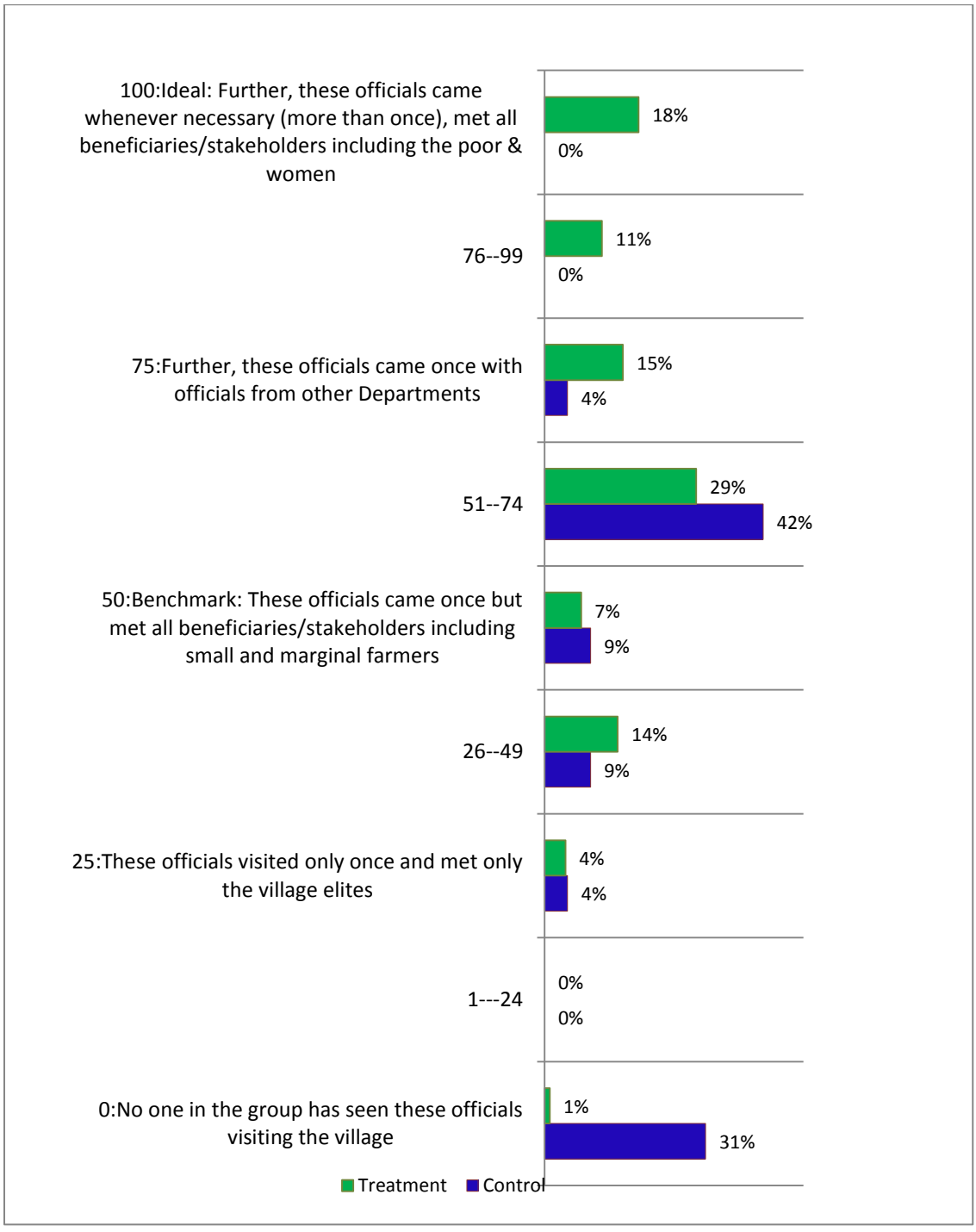


Table 2.2.1.1

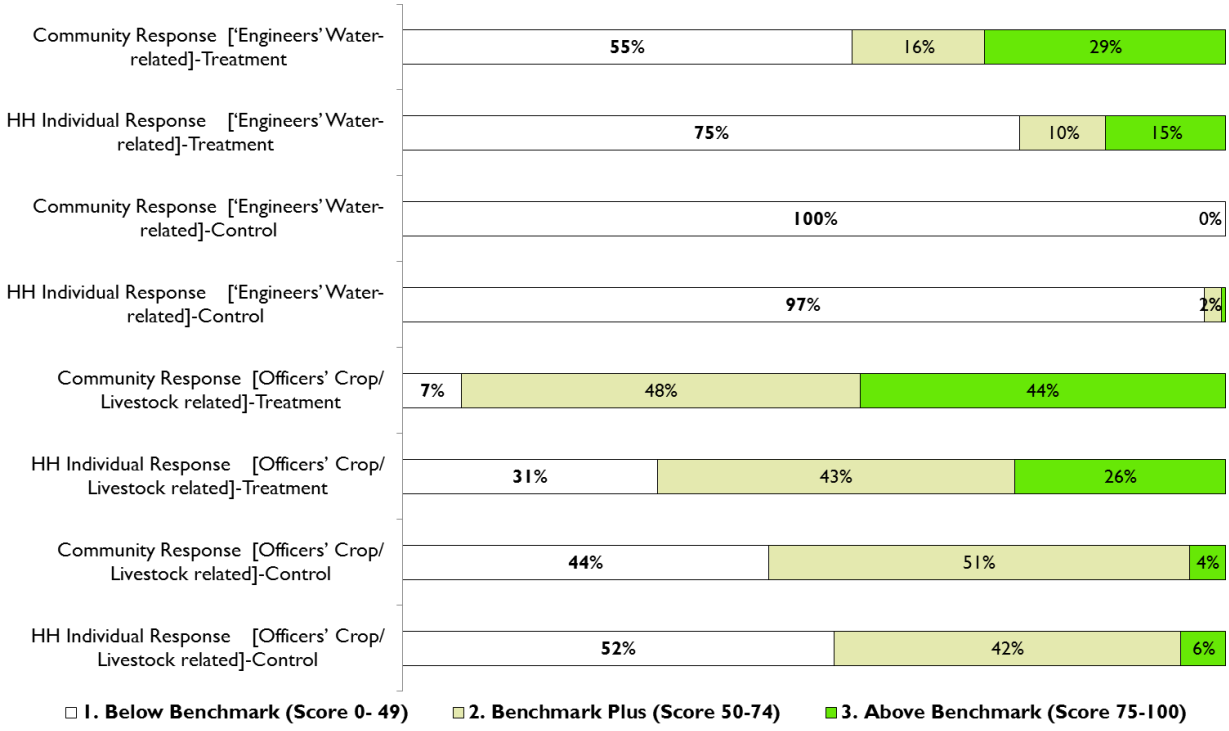
Frequency of visits : Distribution based on Ordinal scores

QPA Scores	Water Engineers		Crop & Livestock Officials	
	Control	Treatment	Control	Treatment
Below Benchmark (<50)	100%	63%	44%	19%
Above Benchmark (50-99)	0%	25%	56%	63%
Ideal (100)	0%	12%	0%	18%

difference between the trained Engineers and Officials, and the untrained Engineers and Officials is very significant in terms of the frequency and nature of visits to the villages. Those who were judged as 'Ideal' by the community comprised 12% among the Engineers and 18% among the Crop and Livestoc related officials.

Figure 2.6

Frequency of visits- FGD Vs Individual response



Individual level responses are analysed and presented in the annexure (Annxure 9)

2.2.2 BEHAVIOUR DURING VILLAGE VISIT

2.2.2.1 How do the officials behave during village visits?

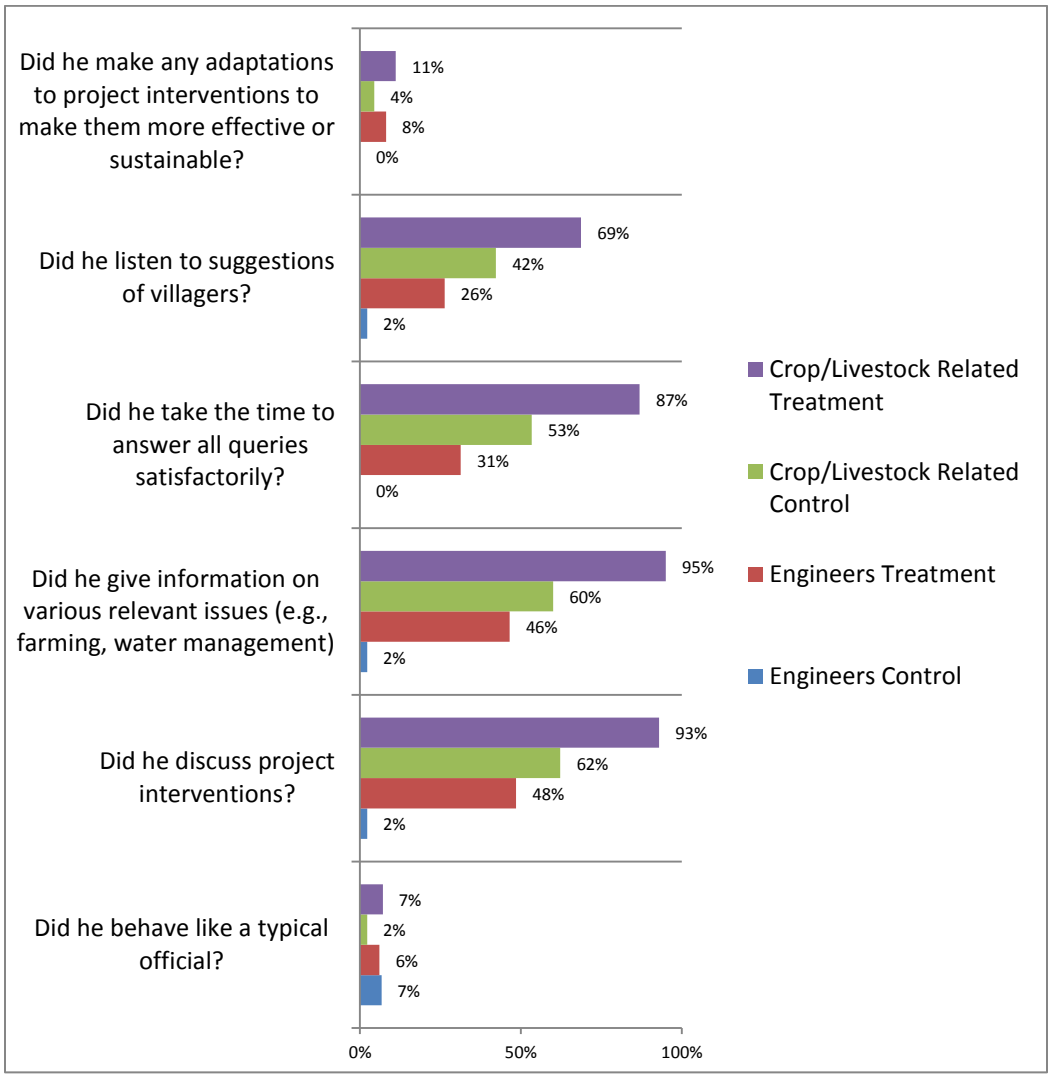
The behaviour of officials when they visit the villages makes a major change in the community and their participation in the development process. The main pointers discussed in this question are : i. Did he behave like a 'typical' official?, ii. Did he discuss project interventions?, iii. Did he give information on various relevant issues (e.g., farming, water management), iv. Did he take the time to answer all queries satisfactorily?,v. Did he listen to suggestions of villagers?, and vi. Did he make any adaptations to project interventions to make them more effective or sustainable?

The main findings relating to the behaviour of officials during their village visits are given below.

The data indicate that there is a noticeable difference between the trained and untrained in the way they behaved when visited villages (Figure 2.7). The trained officials seemed to behave favourably in terms of discussing the appropriate project interventions, giving specific relevant information, listening to the villagers, giving answer to their questions or making any adaptations in the interventions to make it more sustainable.

Figure 2.7

How do the Engineers & Officials behave during their village visits: based on binary responses



According to the ordinal scores given by the community, 45% of the Water Engineers performed above 'benchmark' expectation, i.e. not only that they did not behave like a 'typical officer' but they have also discussed the various project interventions and given information on relevant issues in farming and water management (Figure 2.8). Those who behaved up to an 'ideal' level is 4%, characterised by they do not behave like a 'typical officer', listen to the farmers including small, marginal, women and poor, give relevant information for the local context, listen to their suggestions, understand the local context and adapt the interventions appropriately to make it more sustainable and effective. The untrained engineers remained all below the benchmark expectation of socially oriented engineers.

Figure 2.8
How do the officials behave during village visits? Water Engineers by their Ordinal Score

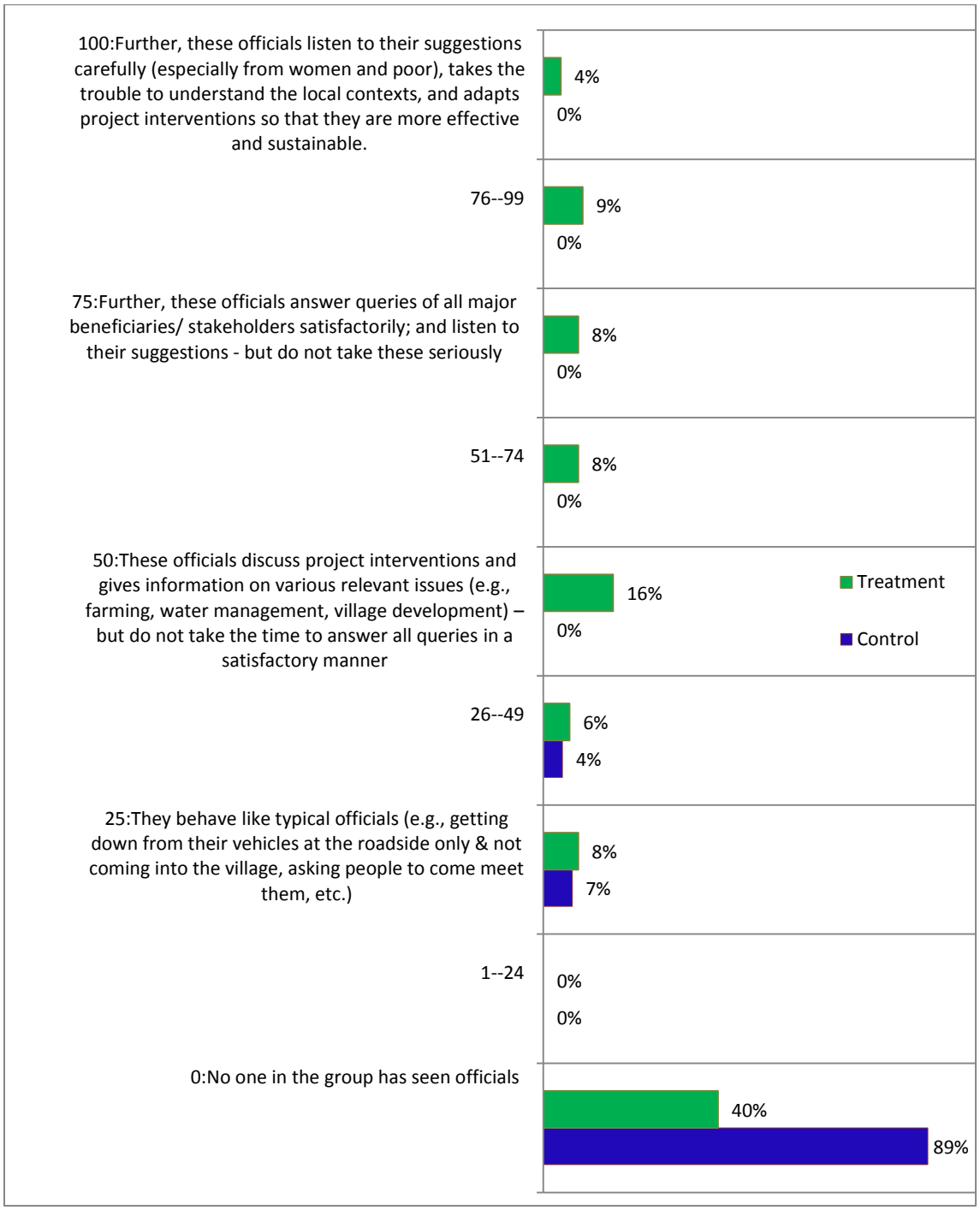
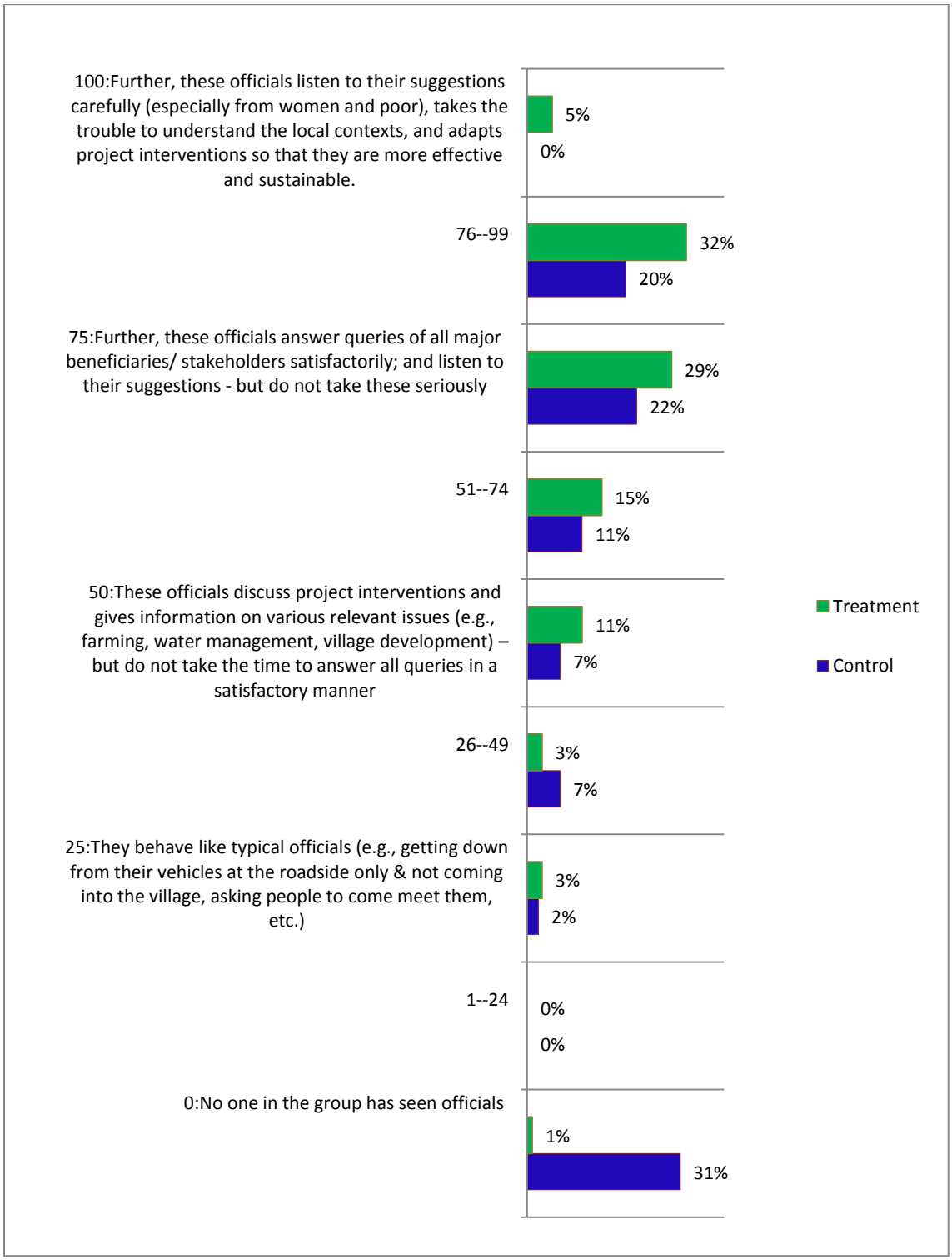


Figure 2.9
How do the officials behave during village visits? Crop & Livestock related Officials by their Ordinal Score

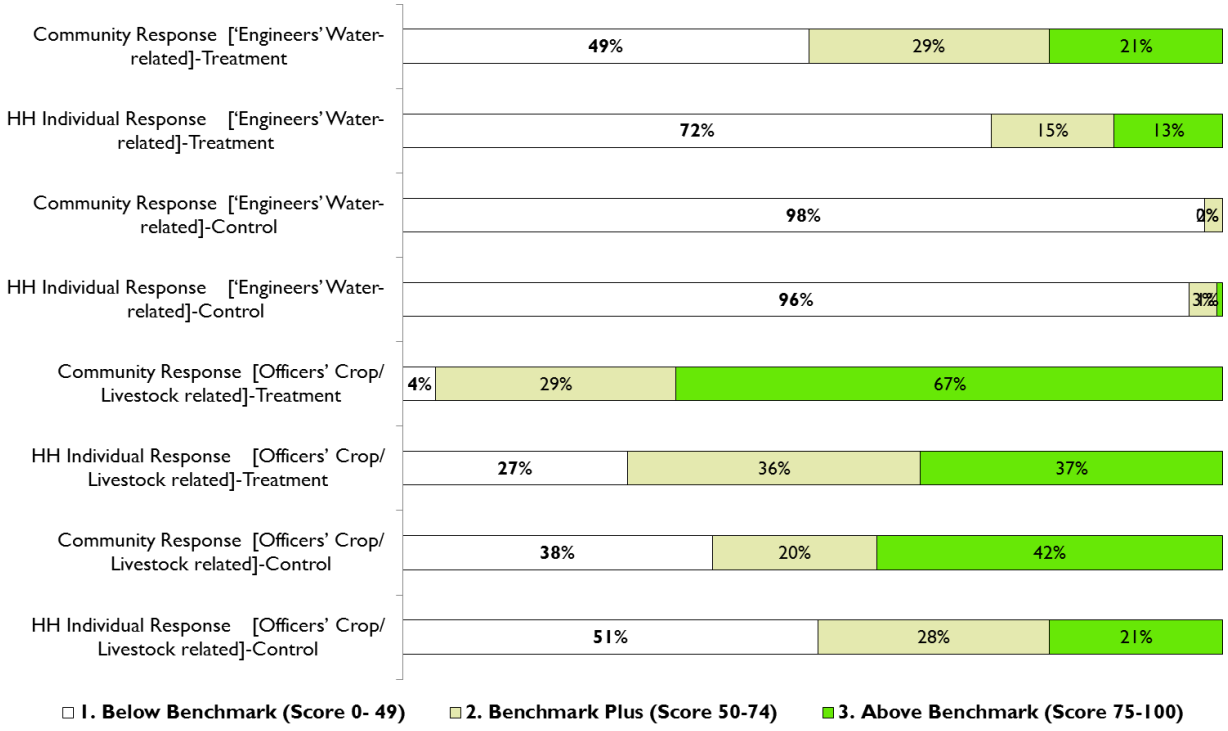


The data based on the ordinal score indicate a significantly different behaviour among the trained and untrained. The difference between the trained and untrained engineers is very high compared to the difference among the trained and untrained officials. Furthe, in both the categories of Engineers as well as the Officers, there 'Ideal' cases 4 and 5 percents respectively.

Table 2.2.2.1
Behaviour during visits: based on ordinal scores

QPA Scores	Water Engineers		Crop&Livestock Officials	
	Control	Treatment	Control	Treatment
Below Benchmark (<50)	100%	55%	40%	7%
Above Benchmark (50-99)	0%	41%	60%	88%
Ideal (100)	0%	4%	0%	5%

Figure 2.10
Behaviour in Village- FGD Vs Individual



Box 2.2
Officials' and Engineers' Visit – Farmers' perspectives (Treatment Villages)

Crop and Livestock Officers' visit: Agricultue *Officer Mr X2 has visited the village 4 times and also came during the week before last. Horticulture Officer Mr X3 has visited two times in the last month, other department officials visited one time, and they met all farmers. They will come whenever we call. We have in this village two farmers who got second and third price for the high yield of paddy through SRI cultivation. The officers only guided for that*.

:Village Code: 101096

Crop and Livestock Officers' visit: *Agriculture and Horticulture officers visit and meet those who want to meet them. Horticulture department office Mr X4 visited our village many times. He moves with everybody without any difference and delivers whatever information and help we need. Agriculture department officer is not like that although he visits our village. Veterinary doctor or fisheries department officers did not visit. Agriculture marketing officers sends market price information via SMS & phone.*

:Village code 101109

Engineers' visit: *PWD Engineer has visited one time and asked about the water supply, any problems in the channel etc, AED Engineer visited last month. They have met all farmers and also came with other department officials for the meeting. The PWD Engineer told us to keep the canal always clean and not to expect every time the Government to do it. AED Engineer discussed about the method of transplanting the paddy sapling.*

:Village Code: 101096

Engineers and Crop & Livestock Officers' visit: *Engineers visit frequently, visited 4 times in last 3 months. Twice they came with officials of other departments and met all stakeholders. They come if we call them also. They also met the women and the poor when they visited. All the Officials, Agriculture, Horticulture, Veterinary etc would have visited atleast 4 times in the last 3 months to our village. In that 2 times they came jointly with all department officials, and when they came met all, including farmers, women and poor. They also come immediately when we call them.*

: Village Code: 101136

Box 2.3
Officials' and Engineers' Visit – Farmers' perspectives (Control Villages)

Engineers' visit: *Mr. Y_1 from Department of Agri Engineering visited once, and met only important persons, that too the President of WUA. We have not seen any other Engineers visit during the last 3or 4 months to our village.*

Village Code: 101100

Engineers' and Officers' visit: *The engineers visited the village when the work was carried out in the tank, not after that. We have no idea who is in that position or who they are. Most of the farmers don't know who the Engineers are. For the past one year, no officials visited the village. No water in the tank, so there is no need for Fisheries department to come. We contact the former Agriculture Officer Mr X_1 for any clarification in the cultivation. Most of the elite farmers have the Agriculture Officer Mr X_1's contact number.*

: Village Code: 101047

Engineers' visit: When the *Engineers of PWD and AED officials visit the village they behave with respect, explain about the projects, subsidy for tractor, roto-weeder etc, but they will not answer properly the doubts we raise.*

Village Code: 101101

Crop & Livestock Officials' visit: *Mr X_5 Cell.No. 94xxxxxxxx) from Department of Agriculture visited three times and have seen last 25 days back. Department of Agri Marketing officer Mr. X_6 (97xxxxxxxx) visited two times. Mr.$X_7$of Department of Animal Husbandry will come from XYZ whenever we call him. Even in last week he has seen our cattle. So far we haven't given any paisa. Even if we make a call he will visit (94xxxxxxx). Officer from Department of Agriculture Mr. X_6 when visited explained about horticultural crops - Thuvarai/ Beans and informed about the subsidy available for that. Further the official not meeting the all kinds of people of the village, he told only those whom he meet on his way. Department of Agri Marketing officer Mr. X_6 told us about the crops Ragi, and Thuvarai. Mr.X_7 Veterinarian of DoAH visited more than 10 times in between these three months. Not only that, he visited the village whenever in need. All the officials who visited the village came alone and met the people and did not come with other department*.

Village Code: 101100

2.2.3 BEHAVIOUR DURING VILLAGE MEETINGS

2.2.3.1 How do the officials behave during village-level meetings?

Behaving as part of the community while participating in village level meetings, listening to the views of all stakeholders and encouraging minorities to express their views, etc are some of the good gestures an official can adopt to encourage more community involvement in the implementation of any government programme. Findings based on the community response in this regard are as given below.

Figure 2.11

How do Engineers & Officials behave during village meetings: based on binary responses

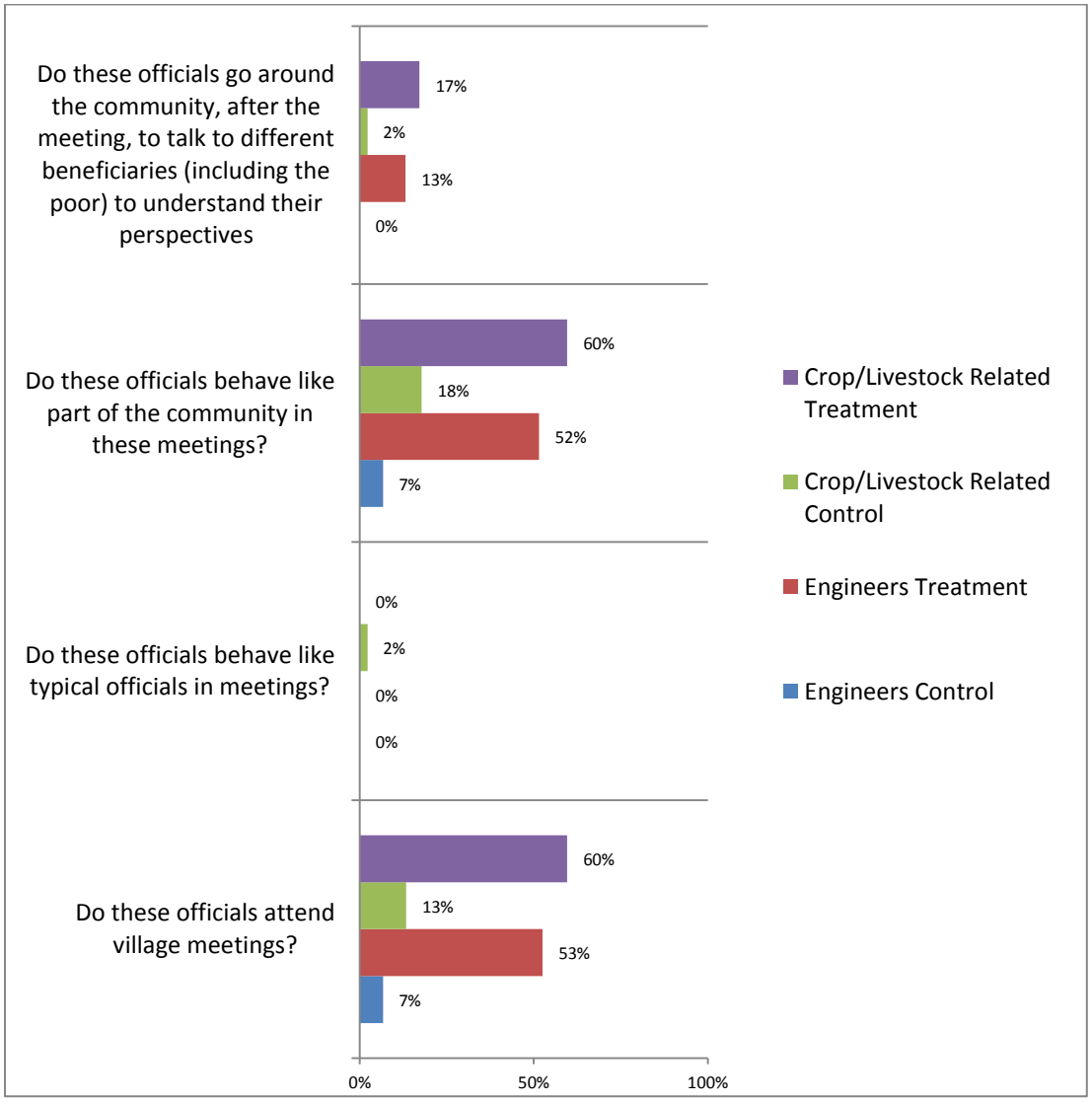
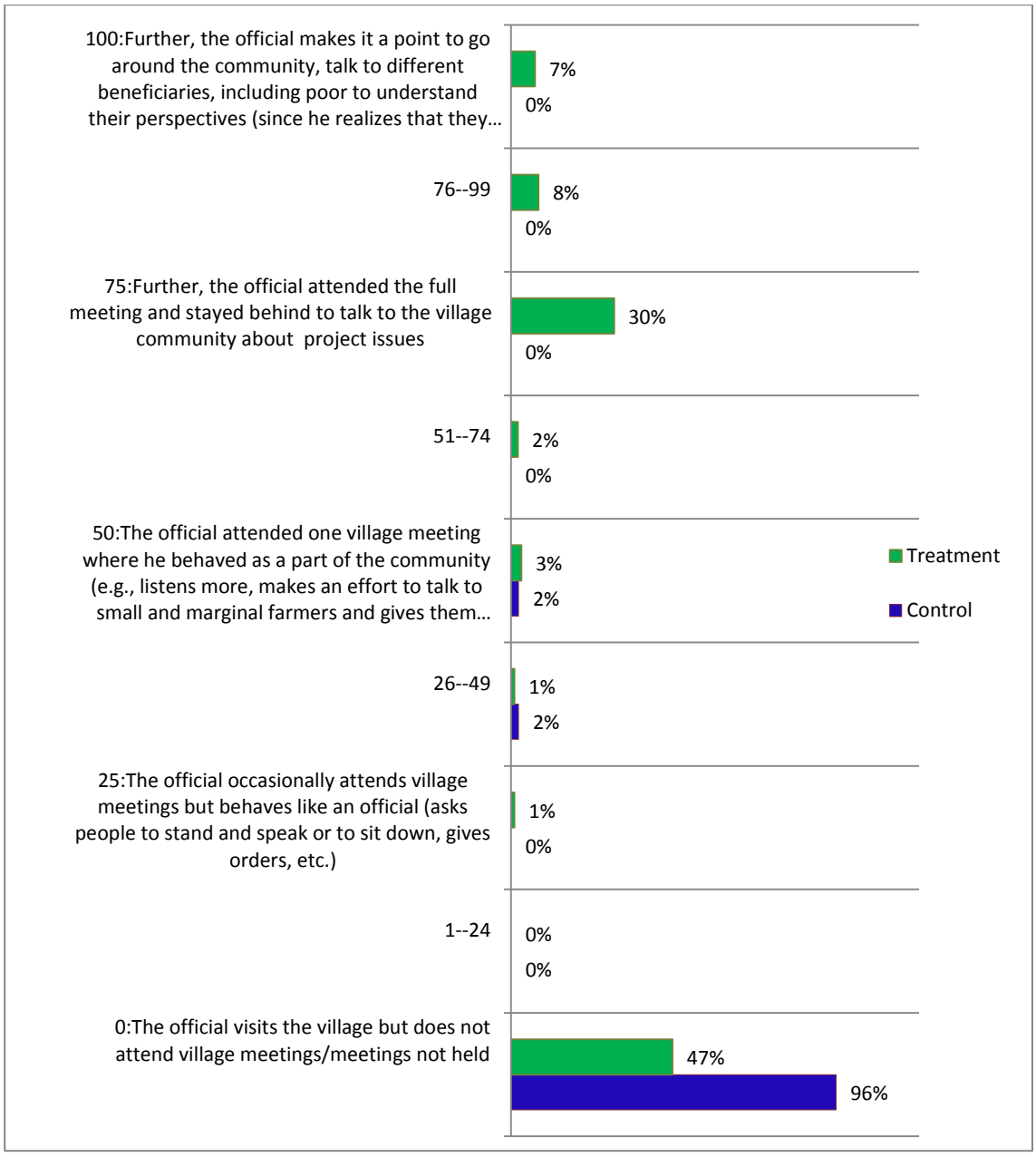


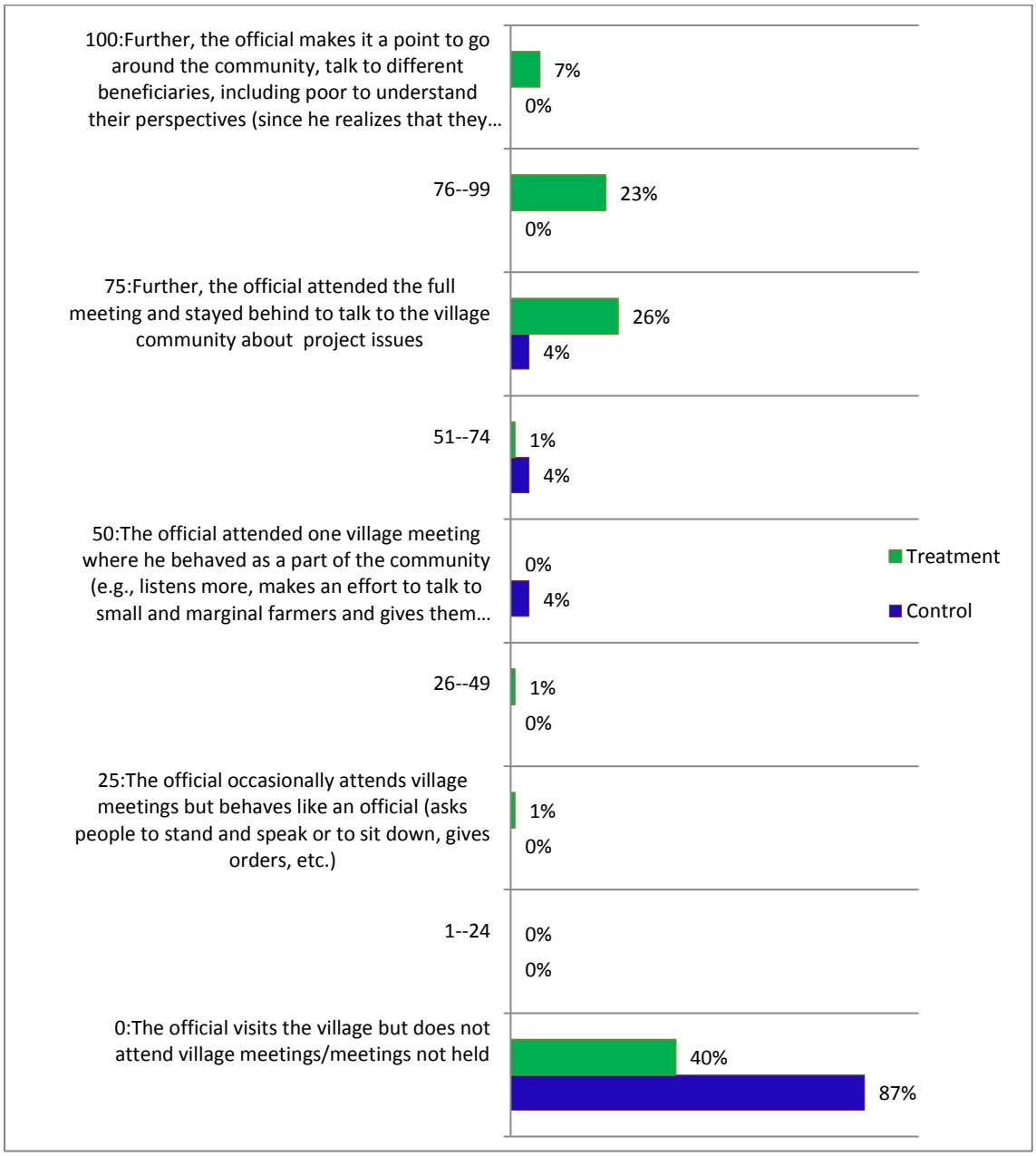
Figure 2.12
How does the official behave during village meetings?: Water Engineers by their Ordinal score



Distribution according to the ordinal score for the Water Engineers shows that the trained officials are given more scores than that of untrained officials, thus indicating a better participation of the trained group in village level meetings (Figure 2.12). Those who attended the village level meetings at least once during the reference period comprised 50%., and when they attended he/she listened more, made an effort to talk to small and marginal farmers and given them space to talk in village meetings, a 30% of the officials attended the full meeting and stayed behind to talk to the village community about project issues. But those who reached an

ideal level of attending the meeting till the end, makes it a point to go around the community, talk to different beneficiaries, including poor to understand their perspectives since he/she realizes that they may not have felt free enough to speak during the village meeting was 7% among the trained officials.

Figure 2.13
How does the official behave during village meetings?: Crop & Livestock officials by their ordinal score



Box 2.4

Behaviour of Engineers and Officers in the meetings: Farmers' words

Engineers' behaviour in the meetings: *Engineers have not attended the meeting which was conducted last month. In the last month, Agriculture, Horticulture and Veterinary doctor came together and conducted a meeting. Discussed about drip irrigation, fodder cultivation, fertilizers for fodder etc. They wait till the end of the meeting and after that they go immediately*.

Village Code: 101106 Category: **Control**

Engineers' and Officers' behaviour at Meetings: *Meeting was not conducted in the past few months, but when the meeting held before one year, the PWD engineers mentioned that they will renovate the sluice and strengthen the bund. AED engineer mentioned the subsidy for mini tractor and power weeder. The agriculture officer told about SRI cultivation, seed treatment, Veterinary doctor mentioned about the cattle management, AI, how to protect cattle from Foot-Mouth Disease. Horticulture Officer mentioned about the hybrid seeds, and drip irrigation and sprinkler. They stayed till the end of the meeting and gone away without visiting the village.*

Village Code: 101028 Category: **Control**

Engineers' and Officers' behaviour at Meetings: *In the last meeting held in our village all the officials came. The PWD Engineer explained about the rain water harvesting method, Agri Engineering Department Engineer mentioned about the subsidy for machine transplanter, Mini tractor etc and told that we can pay 50 % and the 50% will be subsidy to purchase the machines. Agriculture Officer mentioned about the SRI cultivation, less expenditure and high yield in that, water savings in the SRI cultivation. Horti Officer explained about the dept schemes, Veterinary doctor mentioned about the cattle care, Fodder cultivation., fisheries dept mentioned about the prospects of fish cultivation. The Engineers will wait till the end of the meeting and clarifies the doubts, but they will not go around the village. The Agri officer will go around to the fields after the meeting, and not others.*

Village Code: 101016 Category: **Treatment**

Engineers' and Officers' behaviour at Meetings: *Two meetings were conducted in the last 3 months. The last meeting was held on 28.10.2014. All the Engineers and Officials attended the meeting. The Engineers behaved as a part of the community, they sat in the ground along with us, they discussed issues with women also. They waited till the end of the meeting and clarified the doubts. and go around the village and mmets the farmers in the field The Officers who participated the meeting also mingled with the farmers like friends, they explained SRI, soil testing, seed treatment, fish farming, tissue banana etc. and encouraged the farmers to ask questions. After the meeting, they went around the village, met and spoke to people including women. They had an excellent way of working with people*.

Village Code 101136, Category: **Treatment.**

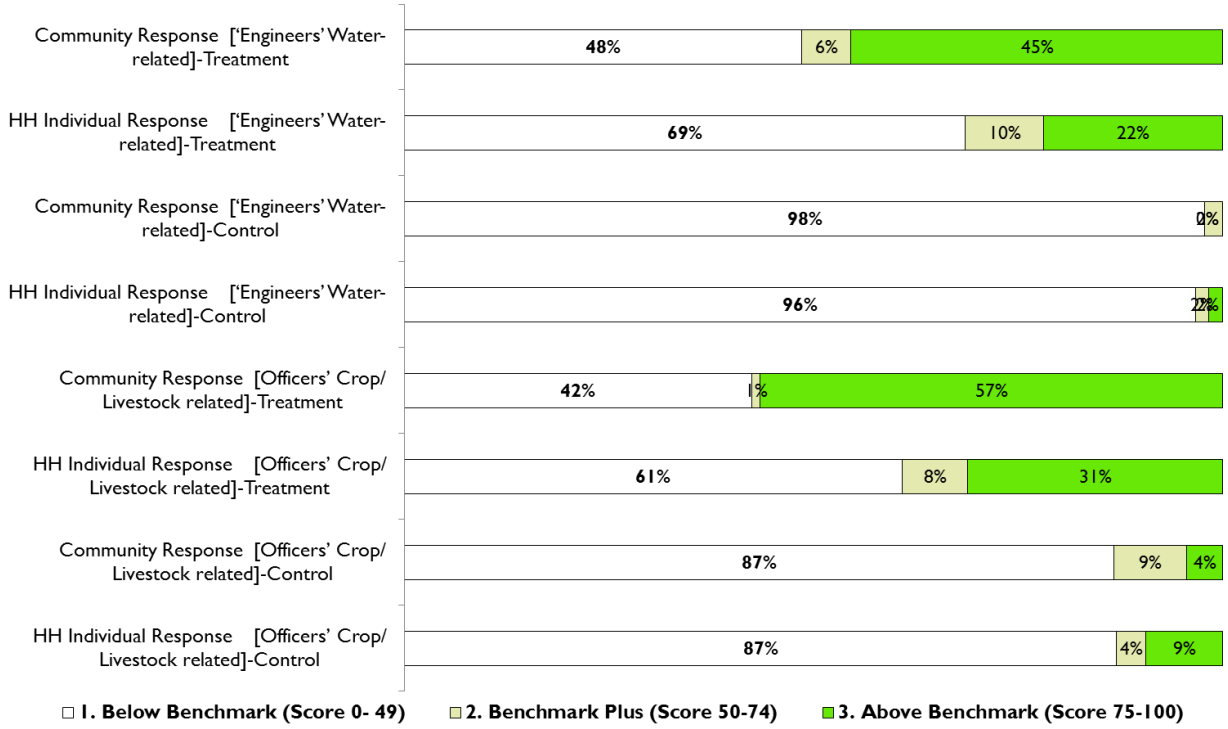
The training has enabled the Crop & Livestock related officials also in their better performance at the village level as it is observed from the distribution according to ordinal scores (Figure 2.13). Fifty eight percent of the officials were given scores 50 (and 75) and above by the community based on their behavior at the village level meetings. This meant that when the officials attended the meetings, they given full attention to that, waited for the meeting to be over to have further discussion with the villagers about the various interventions.

Table 2.2.3.1
Behaviour during village level meetings of Officers

QPA Scores	Water Engineers		Crop &Livestock Officials	
	Control	Treatment	Control	Treatment
Below Benchmark (<50)	98%	50%	87%	42%
Above Benchmark (50-99)	2%	43%	13%	51%
Ideal (100)	0%	7%	0%	7%

Those officials who scored 100 for their 'ideal' behaviour during the village level meetings are 7% each among Water Engineers as well as Crop & Livestock officials. In the untrained group of officials, nearly all the Engineers scored below benchmark and among the Crop and Livestock related officials too 87% score below benchmark.

Figure 2.14
Behaviour during village meetings- FGD Vs Individual responses



Box 2.5
Village 101143

Village Code: 101143., Category : **Treatment.** FGD with 14 members including Panchayat President, WUA President, Lead Farmer and other randomly selected farmers. The nearest town to this village is 13 kms away and 1 km far from the main road with frequent public transport. The preliminary discussion established that the village is predominantly agriculture dependent for the livelihood. All the farmers involved in the discussion had knowledge about SRI, MIS, High Yielding Varies of crops, seed treatment, soil testing, azola and other fodder crops, and artificial insemination.

Engineers' and Officers' visit to the village: *All the officials of eight departments visit the village. During the last 3 months, Engineers visited here three times. At all the three times they joined together with officials of other departments . Whenever visited the village they met all ayacut farmers. Whenever Agricultural Engineer visits the village he meets all the beneficiaries. They meet all without any bias. During the last 3 months, officials of departments visited three times to the village. Further, AAO of Horticulture visited with minimum of times, Veterinarian 5 times visited the village. These officials whenever visits the village they meet all without any prejudice. The phone numbers of all departments are written on the Single Window Information Centre .If we call they call on us immediately. Veterinarian and AAO of Horticulture Mr XX during their visits they meet all the beneficiaries. All the officials of eight departments behave well. We don't have any regret and anger/ irritation with anybody. There is no way to find fault with any govt officers. Since we haven't had enough/ sufficient water resources, not able to practice all the new scheme explained by the officials. We can blame only the nature.*

Engineers' and Officers' behaviour during village visits: *Whenever Engineers visit the village they speak kindly / gently with all. They explain with all, about Drip Irrigation and Sprinkler Irrigation, modern Farm machineries, suggest to implement the same in the field. In order to explain about the usage of farm machineries they conducted demonstration. Officials accepted the suggestion of the villagers such as construction of Madai and canals and they have done the work. The village is changed due to this scheme and them. During the visit by the all the officials they behave equally. They explain about row plantation, Farm pond, new variety of seeds, seemaipul (fodder). They answer in understandable manner to the clarification we seek for pest attack, yellow disease, and leaf roller disease. They agreed our suggestion and making arrangements to construct drying yard and godown. Many changes are taken place after selecting as model village. Since there is no sufficient / enough water not able to practice the new techniques explained by the officials, that distress us.*

Engineers' and Officers' behaviour during village meetings: *In the last 3 months, Engineers participated in all the three meeting and behaved well. The meeting used to be held only in the temple. Officials sat on the floor equally along with us and spoke. They will be there up to the end of meeting and explain about drip irrigation, sprinkler irrigation and other farm machineries. They also encouraged all the women farmers also to speak in the meeting. After the completion of the meeting, these officials will go around the field and tank where the schemes are implemented. During the last 3 months, Officials also participated in all the three meeting. Officials also at along with on the floor and discussed. They also told all the women farmers those who participated to speak in the meeting. They spoke about row plantation, Hybrid seeds, Seemaipul in the meeting. After the meeting; they visited all the fields where the schemes were implemented. On the way, they spoke with all people in a very friendly manner.*

Box 2.6
Village 101 003

Village Code: 101003, Category: **Control.** FGD with 22 members including WUA President and selected farmers. Located about 12 kms from the nearest town, close to the main road by 1 km and has transport facility to the village. Agriculture and Animal Husbandry are major activities. The discussion demonstrated their knowledge about drip irrigation, sprinklers, SRI, soil testing, seed treatment and artificial insemination; and that the Lead Farmer of the village has installed drip irrigation in his field and cultivated paddy in SRI method.

Engineers' and Officials' visit to the village: *Nobody came to our village, Even if they come, there is no information for us. Engineers of PWD and AED did not come to our village for the past one year or so; needless to say the past 3 months. Even if they visit they meet only few persons (VIPs) familiar to them and leave. For the past several months horticulture official or other department officials never visited our village. They make calls and invite the farmers familiar to them; and make them get benefited either subsidy or whatever it is. Officials do not meet farmers in the fields or in their houses. Only Panchayat President and his known farmers, they meet and hence we don't know anything about them.*

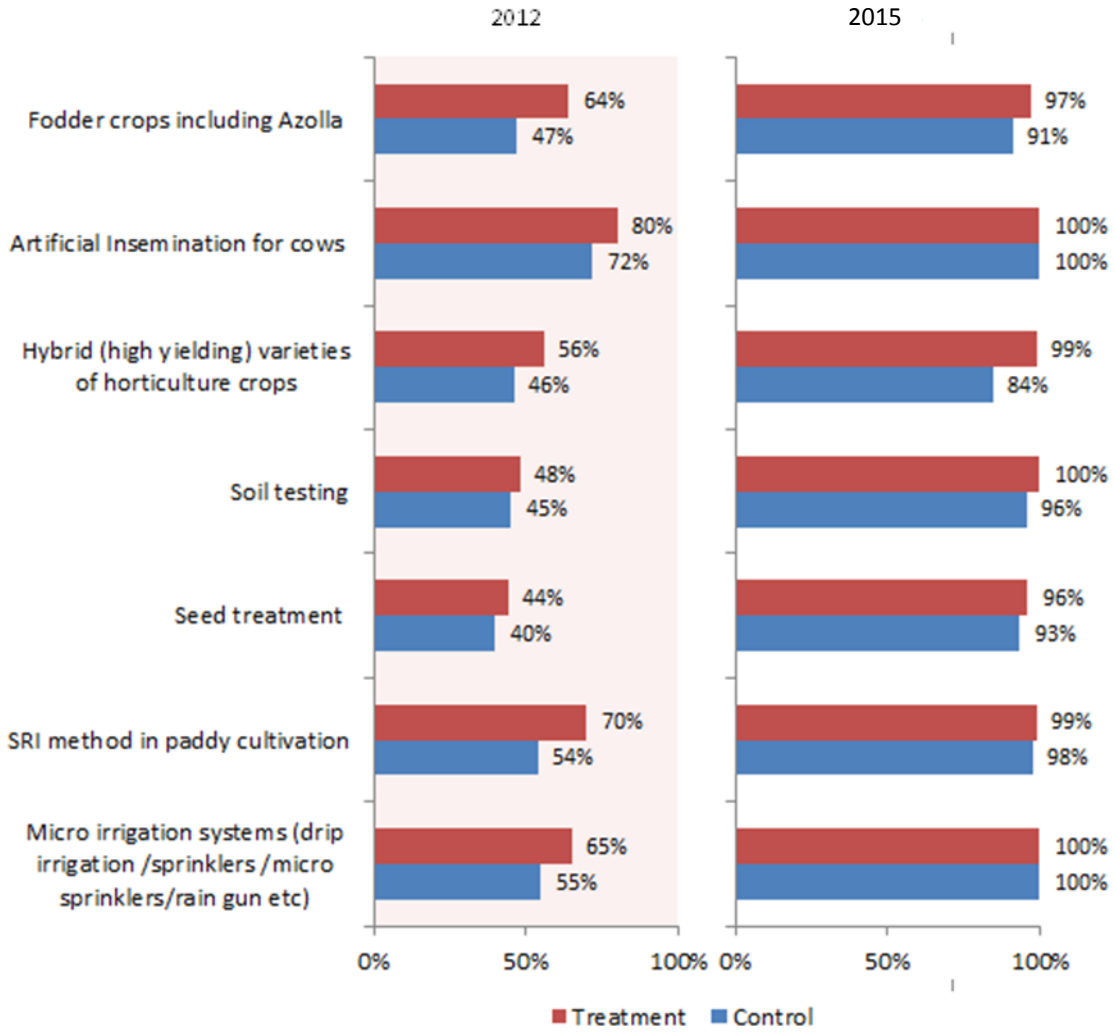
Engineers' and Officials' behaviour during visits: *Three years ago, WRD officials repaired the supply channel from the anaicut. At that time also he didn't meet anybody. Not seen AED officials too. We learn everything from fellow farmers whatever the new method of cultivation etc.. No officials visited and very few got benefitted. Meeting was not conducted in last 3 months, one year back a meeting was held and few departments officials participated, there after we have not seen anybody and there is no meeting organized.*

Behaviour of Engineers' and Officials' during village level meetings: *Meeting was held a year back and few department officials came for that; WRD and AED Engineers also participated. We don't remember what they spoke. All other department officials also came. We don't remember anything specific but they spoke about their department activities in that meeting.*

2.3. COMPARISON BETWEEN 2012 AND 2015

Findings of the present study is compared with that of the earlier study conducted in 2012 to see the changes.

Figure 2.15
Awareness level of farmers on selected interventions 2012-2015



Note: based on the response from individual interviews

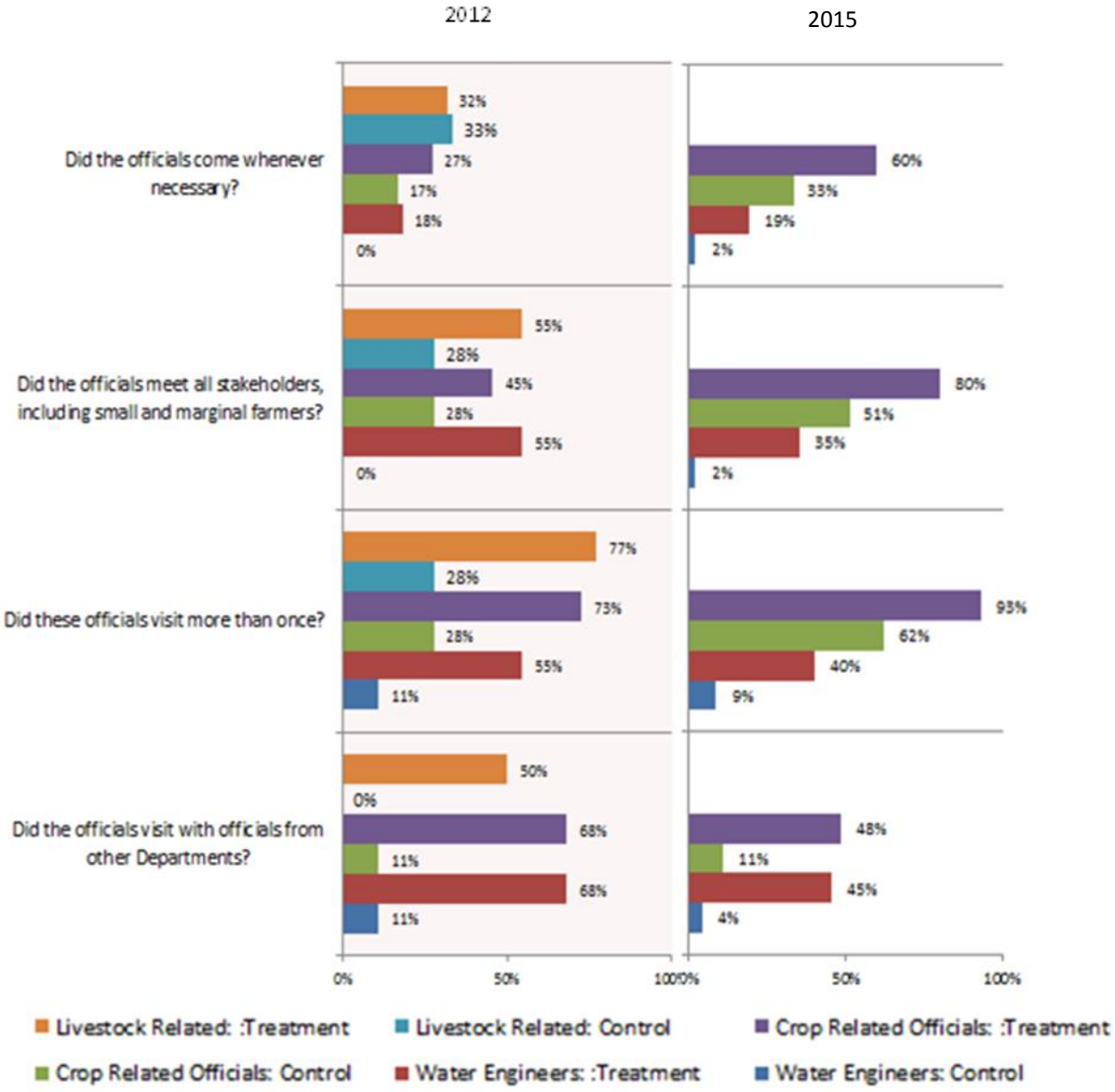
There is a remarkable difference over the period 2012 to 2015 in the level of awareness among the farmers regarding the various pointers taken for the analysis (Figure 2.15).

2.3.2. CHANGE IN IMPRESSION REGARDING GOVERNMENT OFFICIALS OVER 2012-2015

2.3.2.1 FREQUENCY OF VISITS 2012-2015

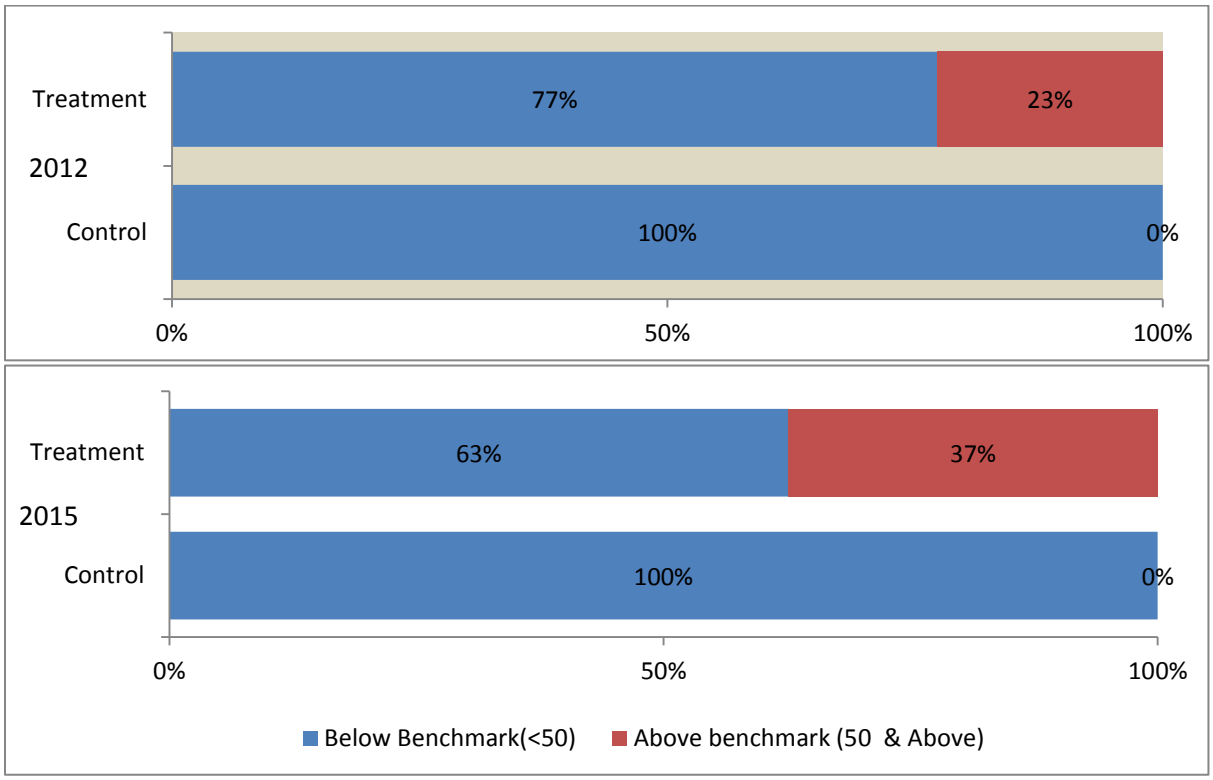
Compared to the situation in 2012, the Water Engineers in treatment as well as in control area show a lower level in 2015. When it comes to visiting with officials of other departments, both the groups (Engineers and Officers) perform poor compared to 2012 according to the community response.

Figure 2.16
How often did the official visit the village? Binary response 2012-2015



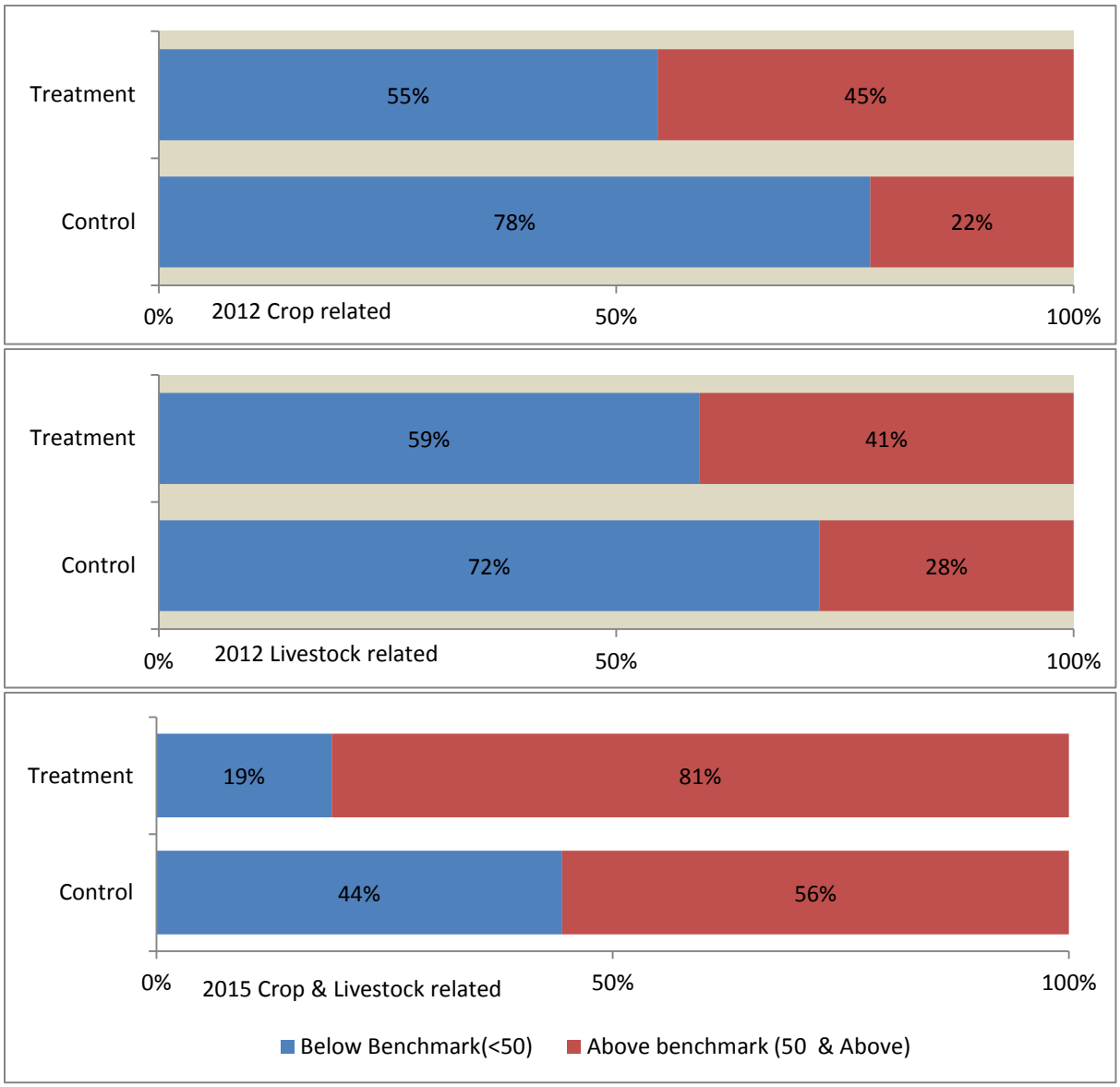
The increase in the percentage of Water Engineers above benchmark in the treatment area over the period 2012-2015 also indicate a significant change among the water engineers community that can be attributed to the change management training (Figure 2.17).

Figure 2.17
How often did the official visit the village? Ordinal Score for Water Engineers 2012 and 2015



Among the Crop and Livestock related officials, 81% of the trained officials scored above 'benchmark' with regard to their frequency and nature of visits to the village and 18% of them received score of 100. In the control area also, among the untrained officials, 56% crossed the benchmark score of 50. Compared to the situation of 2012, there is considerable change in treatment as well as control villages in terms of the scores given to the officials, however the change in the treatment villages are more than that in control villages (Figure 2.18).

Figure 2.18
How often did the official visit the village? Ordinal Score for Crop &Livestock officials 2012 and 2015



2.3.2.2 BEHAVIOUR DURING VILLAGE VISITS 2012-2015

There is change in the way they behave over the period 2012-2015 both in trained and untrained officials, but among trained officials it is more prominent. The main findings relating to the behaviour of officials during their village visits are given below.

The data indicate that there is a noticeable difference in the way they behaved when visited villages (Figure 2.19). The trained officials seemed to behave favourably in terms of discussing the appropriate project interventions, giving specific relevant information, listening to the villagers, giving answer to their questions or making any adaptations in the interventions to make it more sustainable.

Figure 2.19

How do the officials behave during village visits? Based on Binary Response 2012-2015

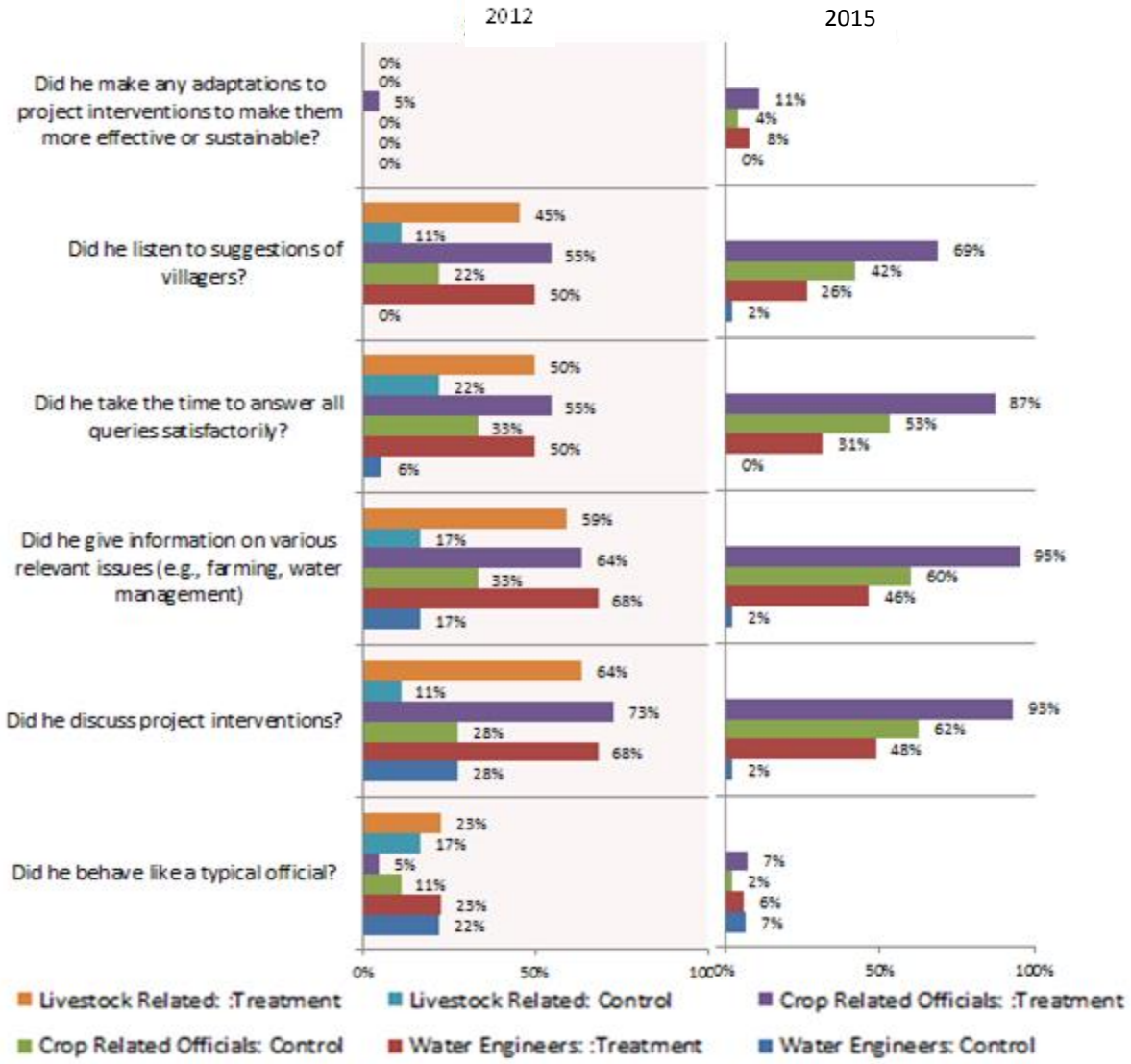
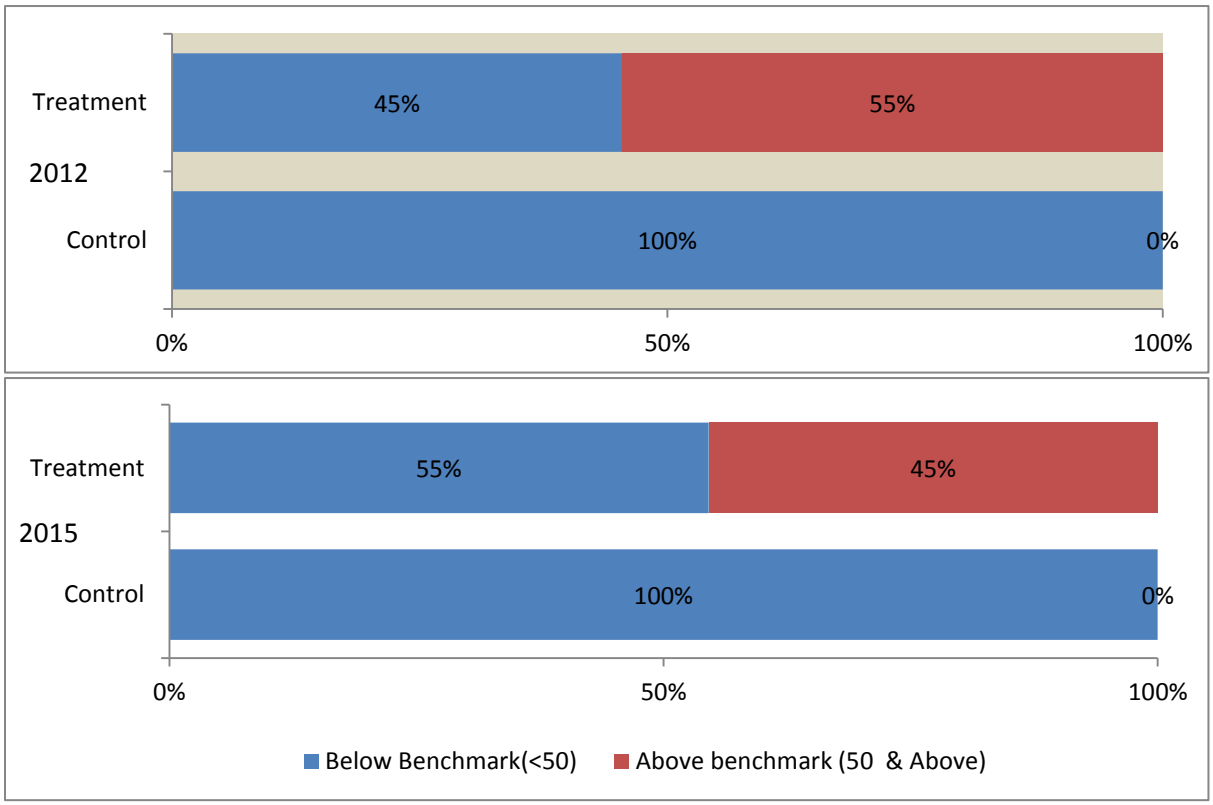
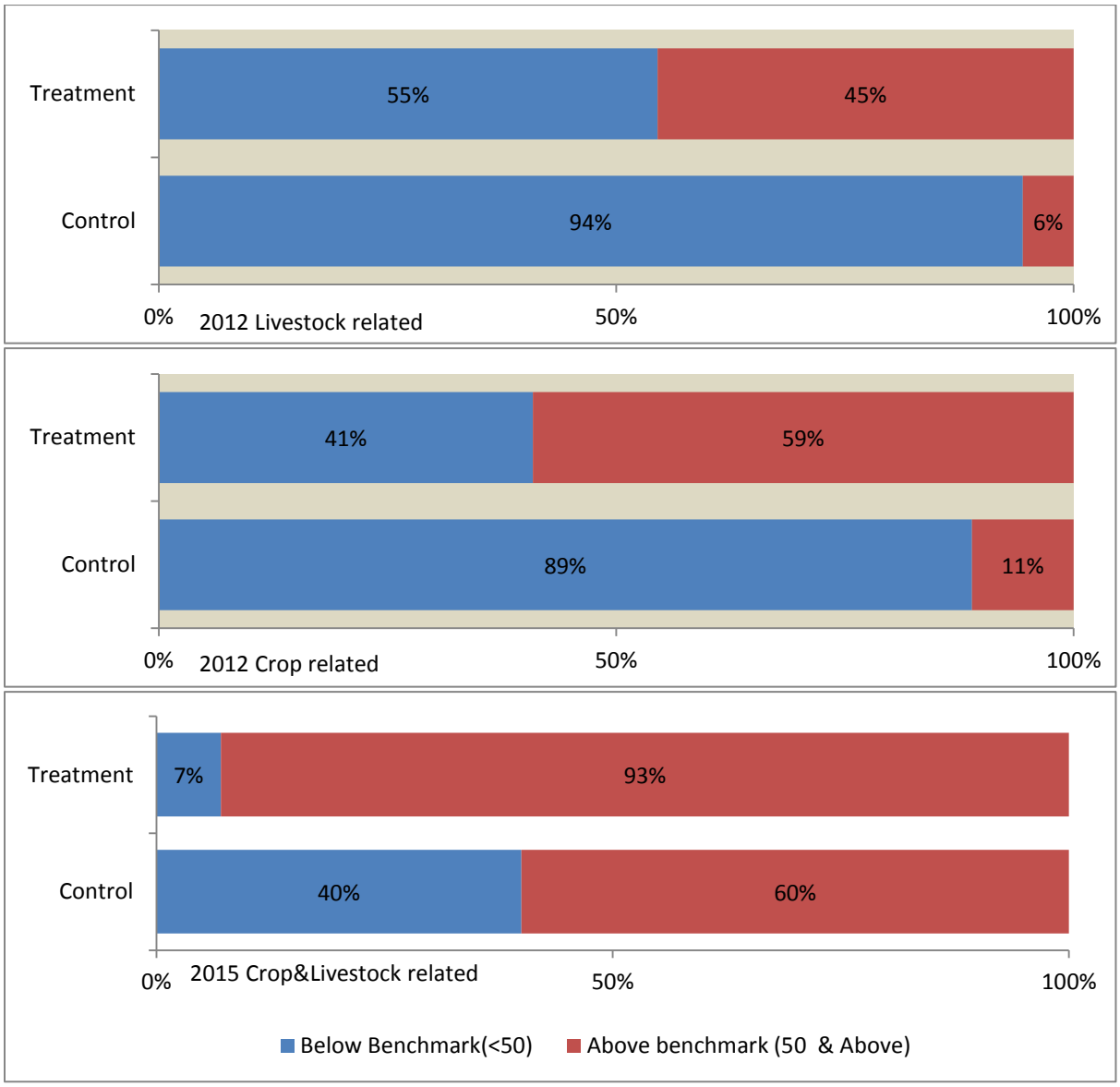


Figure 2.20
How do the officials behave during village visits? Ordinal Score for Water Engineers 2012-2015



The difference in the above benchmark behaviour of the crop/livestock related officials between 2012 and 2015 is to the extent of 34 % if the crop related officials are considered 48% if the Livestock related officials are considered.

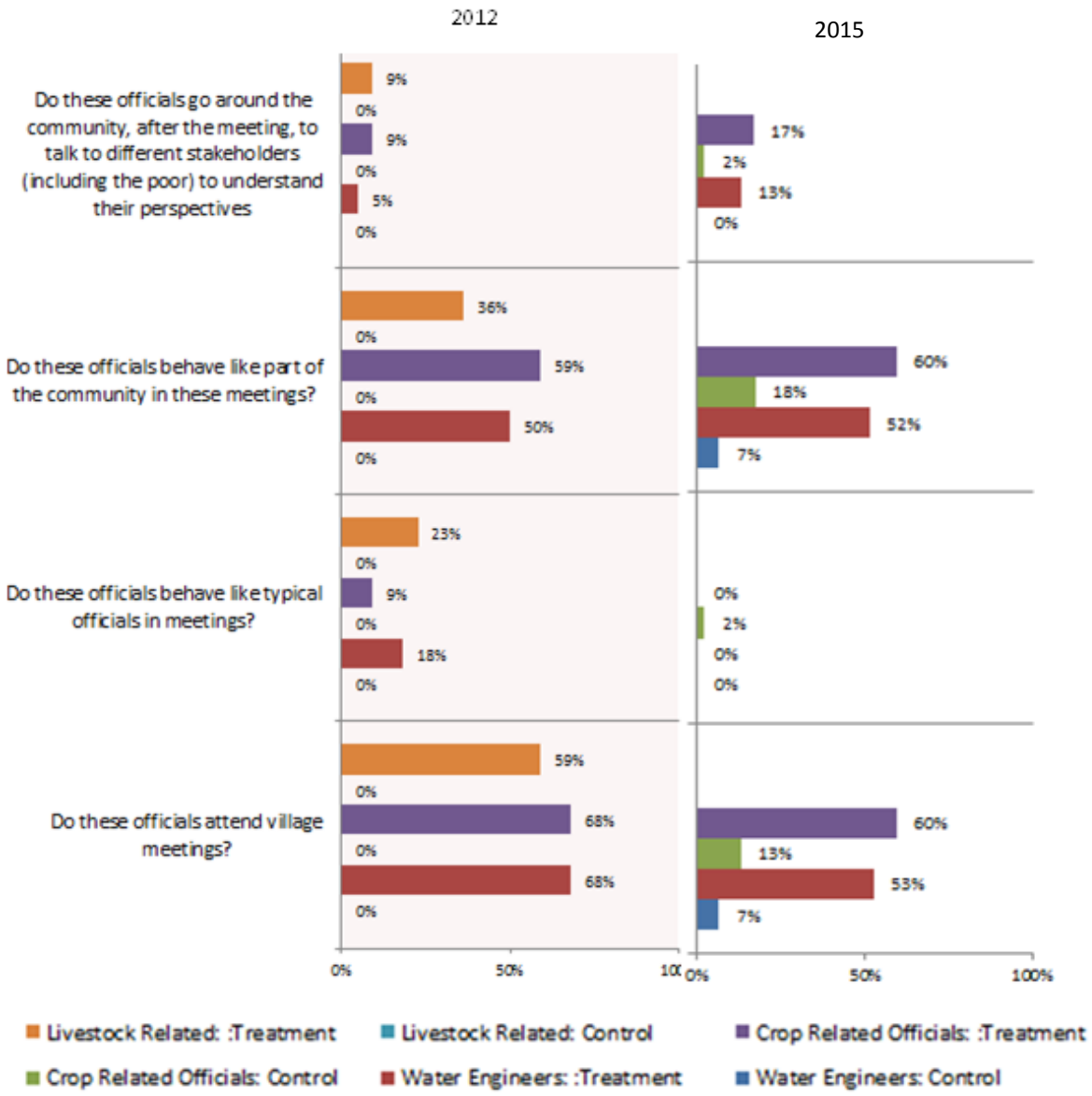
Figure 2.21
How do the officials behave during village visits? Ordinal Score for Crop & Livestock related Officials 2012- 2015



2.3.2.3 BEHAVIOUR DURING VILLAGE MEETINGS 2012-2015

Figure 2.22

How do the officials behave during village-level meetings? – Binary response from the community 2012-2015



According to the binary response (figure 2.22), there is difference between the trained and untrained officials in the way they behave while participating in a meeting with the community. More trained officials participate in the village level meetings as one among the community. After the meeting, it is only the trained officials go around the village to meet other community members including the poor and marginal to get to know their conditions and views.

Over the period, 2012-15 there is a considerable increase in those who have score 50 and above; 32% in2012 and 50% in 2015 for the trained officials (Figure 2.23).

Figure 2.23
How does the official behave during village meetings? Ordinal score for Water Engineers – 2012 - 2015

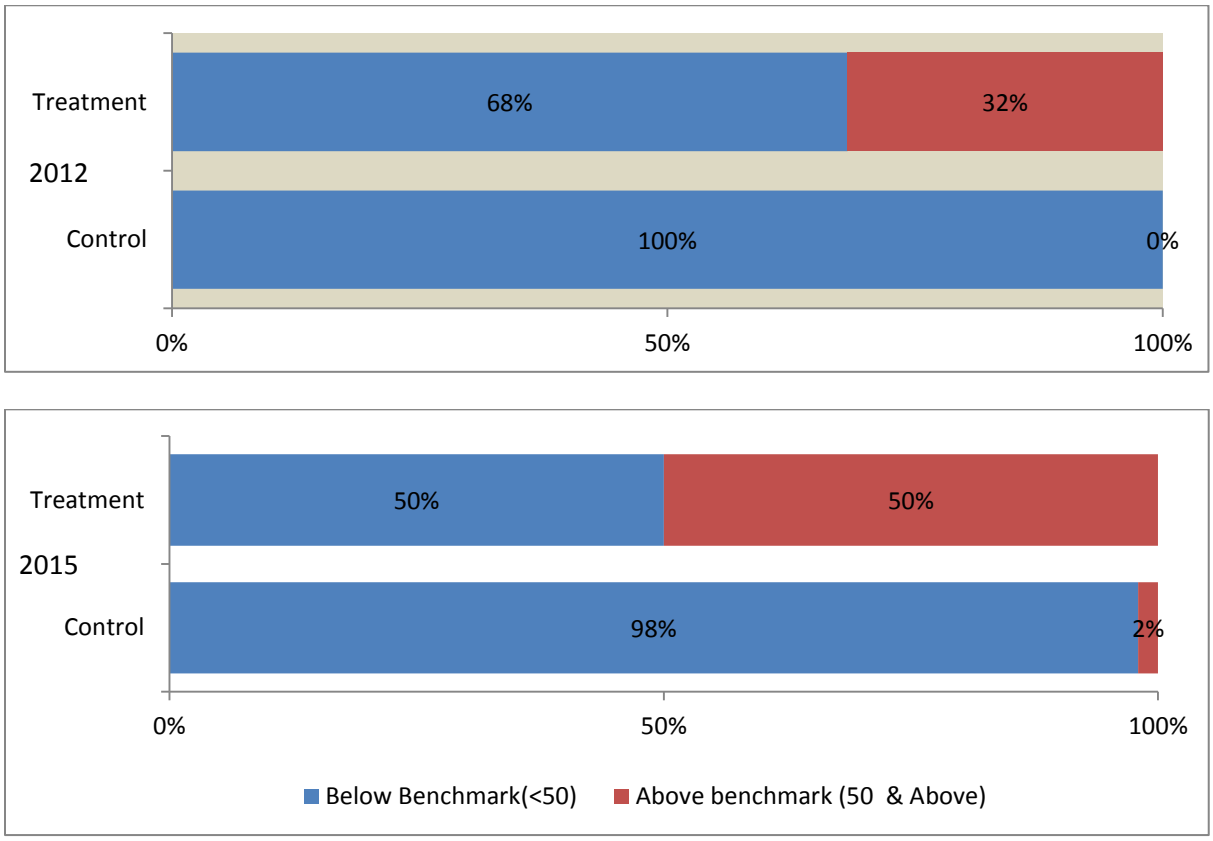
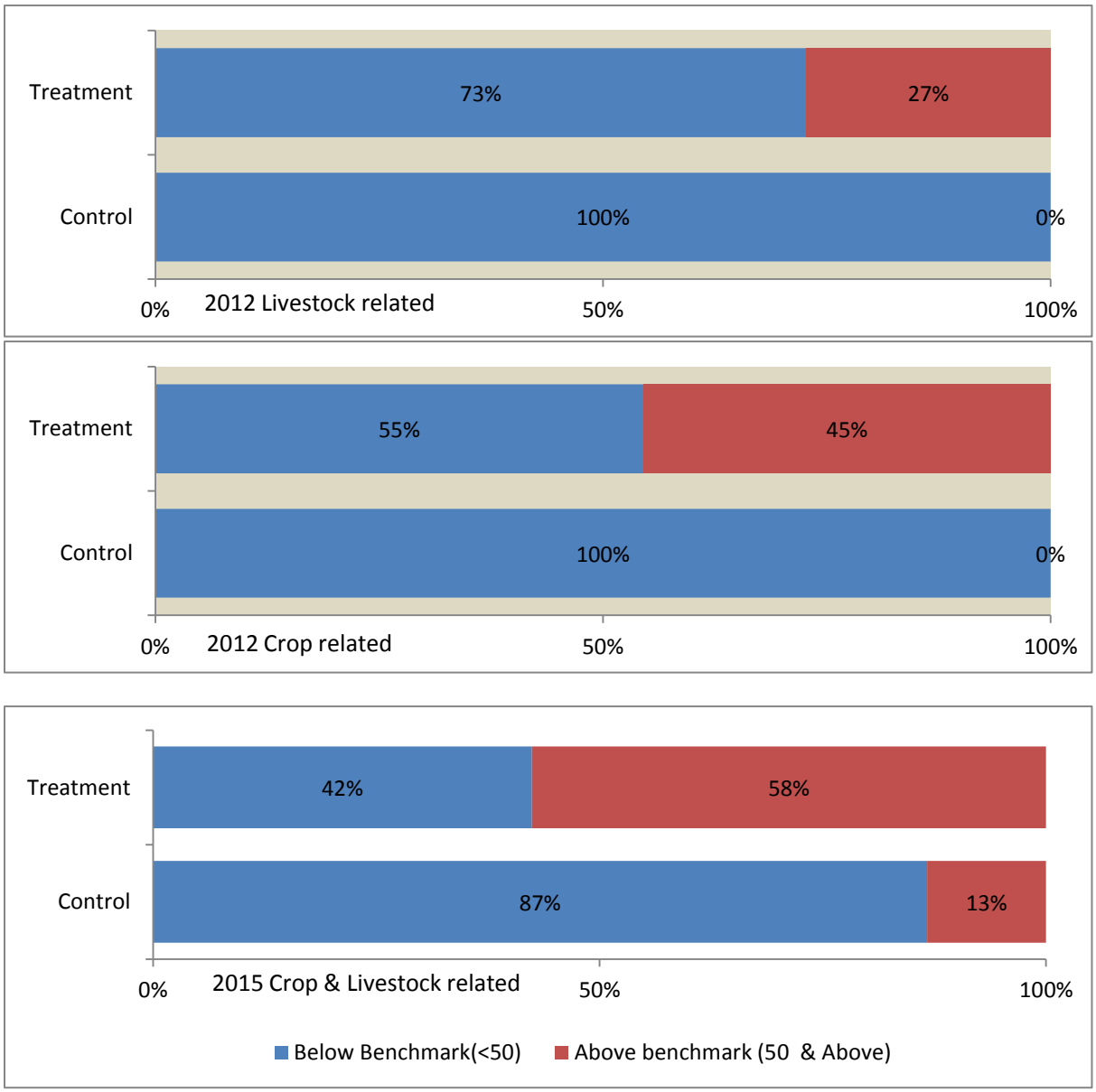


Figure 2.24
How does the official behave during village meetings? Ordinal score for Crop & Livestock officials – 2012 -2015



3. ANALYSIS AND INSIGHTS

The responses from treatment area and the control area differ significantly in terms of the behaviour of officials: Officials who received specialized CMT are perceived by the community as having different attitudes and behaviour compared to officials who have not had such training. Specifically, villagers felt that officials with specialized CMT

i. Visit more frequently

ii. Visit more often with officials from other participating departments

iii. Visit more often whenever there is a need

iv. Meet more stakeholders including small and marginal farmers

v. Met all beneficiaries

vi. Discussed project interventions and gave information on various relevant issues such as farming, water management or overall development of the village

vii. Answered villagers' queries

viii. Listened to villagers' suggestions

In 2015, the Treatment Area officials and engineers performed better than their counterparts in the Control villages, with all differences between the two groups being statistically significant at the 99% confidence level. Crop and livestock related Officials scored highest for all these questions and significantly higher than the Water Engineers.

Over the period 2012-2015, the percentage of those who crossed the 'benchmark' expectation has increased so also the percentage of those with 'ideal' level of performance while visiting the village.

Wide area coverage and a large portfolio of activities to be looked in to make the officials prioritise their visits to villages or farms, and when the opportunities for interventions are also limited as in this case of a phasing out Project, the officials' visits tend to be less frequent. Despite this situation, the Water Engineers as well as the Crop/Livestock related officials have visited frequently to the villages assessed. In terms of behaviour during the visits, improvements are observed for the Crop/Livestock related officials, but not in the case of Water Engineers. The fact that at the current phase of the project, there wasn't any opportunity to take in to account the suggestions of the villagers and make amendments in the project interventions might have resulted in the poor performance in terms of discussing

interventions, listening to the suggestions or answering villagers' queries by the Water Engineers in the year 2015 compared to 2012, and to the other officials in 2015.

Over the period 2012-2015, the percentage of those who crossed the 'benchmark' expectation has increased so also the percentage of those with 'ideal' level of performance while attending the meetings also. The officials are no more viewed as symbols of 'authority' by the villagers when they participate in the meeting, and this change has happened from the way the officials conduct themselves in such public occasions. As perceived by the community, they tend to behave more like part of the community, sit along with the farmers, give 'respect' to farmers, discuss issues with the farmers in a 'friendly' manner, and try to help by channelizing the services from other departments also.

The concept of convergence in service delivery is giving the trained officials an edge over the untrained officials as observations from the field suggest. Besides enabling the officials develop a team spirit, this also helps the community derive better benefits from the government services with the help of the converged efforts of the officials. It may be noted here that the TN IAMWARM project has given the unique opportunity of convergence among the constituent government departments. And such an enabling environment can multiply the effects of the change management training among the officials as well as help realise a high impact at the community level.

The fact that Change Management Training has been taking place in the TN IAMWARM Project since 2010 has resulted in the presence of at least one trained official in many of villages which were considered as 'control' for this impact assessment. Thus, a factor of contamination in the control villages presenting positive results in terms of the parameters assessed in the study. This influence cannot be controlled as the officials are governed by the line departments and not the Project.

The findings from the 2015 study, however, may have shown a greater contrast had the design and timing of the study been different. The fact that the study assessed official behaviour only during a four month reference period (from September to December 2014) meant that the works done by officials in the earlier periods were not captured. The study reference period was one where the Project was phasing out and most officials had completed their field support activities by early 2014 (after being trained in the period since 2010). Also, the agricultural season (November – January) was on-going and thus agricultural marketing officials whose role began after the harvest had no reason to be visiting the field, while Water Resources and Agricultural Engineering Department officials had already completed their visit in the pre-sowing period.

There was also high level of awareness among individual farmers from the treatment area about selected project interventions, and the fact that the Government officials emerged as the major source of information confirm the additional efforts taken by trained officials.

Conclusion:

Overall, village communities perceived a significant difference in the behaviour and attitudes of officials who had received change management training. The positive change over the period 2012-15 is an indication of the scope for spread and sustainability of the training impact.

The fact that the contrast between Treatment and Control villages is less in 2015 than in 2012 also points to a degree of 'contamination' of the sample, as officials trained since 2010 were present in most of the project villages by 2015. The difference between Treatment and Control thus only shows the impact of the two rounds of specialized CMT provided from May-September 2014 to officials in the 100 Treatment villages.

Thus, the comparison with the 2012 really implies that the CMT provided in the early part of the project (i.e., since 2010) has had a sustained impact – causing an improvement in the results from the 'control' villages in the 2015 study.

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ANNEXURE 1

Quantified Participatory Assessment

The field study and data capture was done using the QPA, a participatory techniques that included ordinal scoring systems that quantified responses from qualitative assessments. Several methods have been developed in the recent past to address this issue of generating numbers from participatory activities. The Methodology for Participatory Assessment (MPA) was developed in the late 1990s to assess the sustainability of 88 water supply and sanitation projects in 15 countries and used participatory tools to bring out information and then translated this into numbers using a scoring system. The MPA continues to be used as a 'comparative evaluation tool in large domestic water projects and programs'. The QPA was developed from the MPA and used in India in a variety of development projects since 1999 (James, 2003a). Apart from the expansion from the water and sanitation sector to other sectors, notably watershed development, poverty alleviation, rural livelihoods and water resources, the QPA added several other features to the MPA, including peer review of scores, documentation of reasons for scores, use of an MS ACCESS database to store and analyse information, several rounds of stakeholder meetings and a detailed action planning report.

The QPA was also the basis of the modification of the MPA in Nepal to the NEWAH Participatory Assessment (NPA) by the Gender and Poverty (GAP) Unit of the national NGO, Nepal Water and Health (NEWAH), in Kathmandu, Nepal. The NPA adapted the MPA to suit the geographical, socio-economic and ethnic reality of Nepal, modified the scoring systems to include benchmarks in a flexible 0 – 100 scale, developed additional tools to elicit information on health, hygiene and sanitation issues, and collected additional qualitative information using case studies (James et al., 2003a, 2003b, 2003c). Qualitative Information Appraisal (QIA) is a generic methodology, developed from the experiences with the MPA, QPA and NPA, which goes beyond the constraints of the term 'Assessment'. The QIA is designed for use in both one-time assessments for baseline, mid-term and overall project impact assessments, as well as for continuous monitoring as part of a project's regular monitoring and evaluation system. For further reading

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QPA Format used in the study – attached separate

ANNEXURE 2:
Note on Sampling

Community-level Impact of Change Management Training for IAMWARM Project Officials 2014

1. **Village Selection:** 150 villages including 100 'treatment' and 50 'control' provided by World Bank listed as per the ToR.

2. Individual Farmers' Selection:

- Universe for the study is farmers coming under the *ayacut* of irrigation tanks covered under the TN IAMWARM Project.

- Sample will be Fifteen individual farmers who will be chosen from the beneficiaries in each village, of which 12 will be chosen randomly from the complete list of all beneficiary households and three will be chosen purposively; President of the Village Panchayat, President of Water User Association and a Lead farmer.

- To select the 12 farmers the following procedure will be adopted:
    - The individual beneficiaries of each Departments, *viz*; Agriculture, Horticulture, Agricultural Engineering, TNAU, Animal Husbandry, Fisheries, and Agriculture Business and Marketing under the project will be listed out for each village based on the latest data available from the MDPU.

    - The list provided by MDPU is Department-wise and District-wise and hence it has to be reorganised and consolidated at the level of each village. It has to be ensured that there is no repetition of farmer in the list before the samples are drawn. Further, the sample will be selected using stratified random sampling method and stratification will be based on the Departments from which the farmer benefited.

    - Research Coordinator will consolidate the list obtained from MDPU and will be reproduced village-wise and department wise as in the table shown below. Once the village wise list (List 1) is ready, this will be communicated to the respective Supervisor for field verification.

Table1: List 1 of Farmers for village X from the different Departments

Departments (i=1 to 8)	Beneficiary 1	Beneficiary 2	…….	…..	……
Agriculture					
Horticulture					
Agricultural Engineering					
TNAU					
Animal Husbandry					
Fisheries					
Agri Business & Marketing					

WRO					

- The need for field verification of the beneficiaries: Given the fact that the list has only limited identification details, like name of the farmer with or without the father's name, and only with village name in most cases, finalising the list can be done only with the help of officials or knowledgeable persons/ leaders from the respective village. The preferred method, in order to avoid any biases, proposed is to finalise the list with the help of Village leaders/Village Panchayat President/WUA President. The list prepared based on the MDPU list will be sent to the Field Supervisors to conduct the field verification. Supervisors will work with the WUA President/Village Panchayat President/Lead Farmer to identify the persons and finalise the list. The list of beneficiaries will be finalised based on the Field Supervisor's observations and corrections; and the List 2 will be obtained.

Table 2: List 2 of Farmers for village X from the different Departments

Departments (i=1 to 8)	Beneficiary 1	Beneficiary 2	…….	Beneficiary N_j	Count of beneficiaries for the i^{th} Department ($N_i = j$)
Agriculture					
Horticulture					
Agricultural Engineering					
TNAU					
Animal Husbandry					
Fisheries					
Agri Business & Marketing					
WRO					

- After the field verification if the list has only 12 (=N) farmers on the whole, all will be interviewed for the study. If the final list is more than 12 farmers, the stratified random sampling method will be adopted to select the farmers to be interviewed.

- Selecting the stratified random sample: The department-wise number of beneficiaries (N_1, N_2, etc) are confirmed from the field verified list of beneficiaries, the number of persons to the sample have to be calculated using the table given below (Table 3).

Table 3: Department wise Sample size calculation at the Village Level

Departments	Population size - N(Number of Beneficiaries)	Sample size -n (Number of Beneficiaries in the sample)
Agriculture	N_1	$n_1=(N_1/N)*12$
Horticulture	N_2	$n_2=(N_2/N)*12$
Agricultural Engineering	N_3	$n_3=(N_3/N)*12$
TNAU	N_4	$n_4=(N_4/N)*12$
Animal Husbandry	N_5	$n_5=(N_5/N)*12$
Fisheries	N_6	$n_6=(N_6/N)*12$
Agri Business & Marketing	N_7	$n_7=(N_7/N)*12$
WRO	N_8	$n_8=(N_8/N)*12$
Total size	N $(=N_1+N_2+N_3+N_4+N_5+N_6+N_7+N_8)$	$n =n_1+n_2+n_3+n_4+n_5+n_6+n_7+n_8$ =12

- The sample list will have two separate lists of replacement units of six farmers each, listed as first list of replacement and second list of replacement. If the sampled farmer is not available, he/she will be replaced with one benefited from the same Department from the first list of replacements. If the first replacement is also not available, the second list of replacement will be used. While in selecting the replacement, availability /non availability of adequate number of beneficiaries from each Department would be a determining factor.

- If there are only 24 or less number of farmers, 12 will be randomly prioritised as the main list and depends on total available beneficiaries 6 as first replacement list of sample farmers and the remaining as the second list of replacement sample units.

- The Research Coordinator will generate the random numbers for the sample units for different strata and will be communicated to the Field Supervisors who in turn list out the farmers for the sample in three lists; viz, Sample Main List, Sample Replacement List 1, and Sample Replacement List 2.

- The Field Supervisor informs the WUA President/V P President / Lead Farmer regarding the study and visits to the field along with date and time in advance and informs WUA P/VP P/ LF about the members who should be available for the FGD. Field Supervisor also shares the stratified random sample lists of farmers with the Field Team who will in turn contact the listed persons.

ANNEXURE 3

Team Members

Project Management Team:

Dr A J James (Independent Consultant)

Dr Dushyant Badal (Data Management Consultant)

Dr Rema Saraswathy (Team Leader- ISD)

Field Assessment Team

Team Leader: Dr Rema Saraswathy

Research Coordinator: Mr J Kirubakaran

Field Supervisors: 1 Mr Munusamy, 2. Mr Vaidyanathan and 3 Mrs Sujatha

Field Team Members:

1 A.Ramprasath
2 D.Mathiyazhagan
3 E.Aruldoss
4 G.Praveen Kumar
5 K.Kaviyarasan
6 K.Senthamarai
7 K.Venkatesan
8 L.Akalya
9 L.Gumaseelan
10 L.Singaravelu
11 M.Jagan
12 M.Papitha
13 M.Sasi Kumar
14 M.Seetha
15 M.Suvikkinraj
16 P.Arokiaprasath
17 P.Ashok
18 P.Illakiya
19 P.Sarathi
20 R.Nisenthini
21 S.Gopalakrishnan
22 S.Rajarajeshwari
23 S.Senthamizhselvi
24 V.Vimala

ANNEXURE 4

QPA Training Workshop

Training - Schedule

Residential Training Commenced on 27 October 2014		
Day 1 Forenoon 27.10.2014	Introduction - team	
	Introduction about the Project	CEC /TN IAMWARM
	Introduction about the Assessment	CEC /TN IAMWARM
Day 1 Afternoon 27.10.2014	Introduction about the methodology and tools used	Dr A J James (AJJ) /Dr Rema Saraswathy (RS)
	Introduction about QPA	AJJ/RS
	Formats for QPA - Learning by Discussion	RS
Day 2 Forenoon 28.10.2014	Formats for individual Interviews	RS
	Interview Skills	RS/J.Kirubakaran(JK)
Day 2 Afternoon 28.10.2014	FGD Facilitation Skills	RS/JK
	Mock sessions and group work	RS/JK
Day 3 Forenoon 29.10.2014	Mock sessions and group work	P Muniyappan (PM)/JK
	Mock sessions individuals and teams	PM/JK
Day 4 30.10.2014	Field Training	PM/JK
Day 5 31.10.2014	Debriefing and Practice sessions'	RS/JK
Day 6 01.11.2014	Field Plan	JK
	Sampling (only for Supervisors)	RS
Day 7 02.11.2014	Travel	
Day 8 03.11.2014	Field Work Started	

Detailed Report of the Workshop

The training was held as a residential programme for 6 days and consisted many self-learning sessions, group discussions, role plays, mock sessions and field trainings besides lectures.

Day 1: 27.10.2014

Participants: 19

Session I: Introductory Session

Introduction of team members through 'Know Your Friend' exercise has given them an opportunity to mingle with and get to know each other.

Session II: Introduction about the Project IAMWARM and the research study. The TN IAMWARM Project and the Change Management Training Programme under the project were briefly introduced to the participants.

Further, the participants were given clear instructions about their role in the research project.

Session III: Introduction about the methodology and tools

Learning how to conduct individual interviews and familiarizing with the Questionnaire used for this study

Reading and learning by self, and discussion in small groups

Day 2: 28.10.2014

Participants: 28

Session IV: Recap of previous day training and induction of new comers

All the trainees shared their reflections on the previous day's proceedings basically hovering around three questions: 1. What touched your heart yesterday? 2. What did you learn yesterday? 3 What did you not understand clearly yesterday? After the sharing, the new comers introduced themselves and explained what have they understood from the discussion that held during the session.

Session V: IAMWARM Project and Change Management Training. Dr.G.Vijayaram, SD and PIM Specialist, MDPU-TN IAMWARM Project who handled the session explained in detail about the IAMWARM project, the constituent departments, role and functioning of each department, WUAs its role and the organisational structure, and the objectives of the Change Management

training. The participants were engaged in a discussion to identify the departments in their home location and if there is a WUA, and if they can relate to any of the project interventions.

Session VI: Introduction about QPA Methodology. In this session Dr.A.J.James in his lecture explained about the notions, origin and development of the methodology QPA, and its importance, the steps involved in it along with appropriate examples, and with special reference to this particular study.

Session VII: FGD form. This session with a facilitated discussion made them understand the issues discussed and the questions in the FGD form. Every possible situation as per the form was discussed with suitable examples.

Session VIII: Essential skills for the field assessment team and Field Etiquettes. : Facilitation skills for FGD, Field team composition comprising the three members, and role of each member, other relevant qualitative research methods such as observation, and transect walk, and when to use such methods appropriately to support the QPA. Field manners to be followed by the team while in the field were also discussed.

Session IX: Group Work- simulation exercise

The participants were divided in to two groups and given the role of Field Assessment Team and the role of community of a village for which the situation was described separately by the facilitator. For many of them it was the first experience in facilitating a FGD and the exercise has increased the confidence level of the team members.

29.10.2014

Session X: Recap of previous day training

Besides reviewing the previous day training, the session did recap the two days' training sessions. The basic questions focused on 'Why, What, and How' we are going to do this study.

Session XI: Mock Session

The simulation exercise continued for the second day with a reversal of scenario for the teams. Further, the two groups were given one as the control village and the other as one treatment village. The groups were briefed about all the characters by the facilitator. The group selected their team for conducting the FGDs, interviewers to conduct the individual interviews etc. After the mock session all the queries were addressed by the Facilitator.

Session XII: Field Visit to Meyyur Village, poondi Block of Thiruvallur District

As a preparation, the trainees divided in to 2 groups. Further, the members in each group were divided with specified roles for the members, a team to conduct the FGD, interviewers to conduct the individual interviews, and observers. All the trainees were taken to Meyyur Village, Poondi Block ,Thiruvallur Dist. where the WUA president and some farmers were informed in advance about the visit and the objectives of the visit. The villagers, WUA President and a group of farmers who assembled were divided in to two groups. The trainees completed the assignment given to them. The trainees were given the task of discussing the day's field work and come with report the next day.

Day 4: 30.10.2014

Session XIII : Recap

In the recap session three questions were put to trainees to answer in paper. The questions are 1. What is FGD? , 2.What is Change Management?, and 3. What is the objective of the Study? The three days of in-house training complemented with the field visit helped them clearly understand the bigger picture of IAMWARM Project, the constituent departments and their local officials, and what kind of behavior change is being assessed here for the study. However, further perfection of the skills for facilitation, observation and documentation were essential.

Session XIII : Individual Questionnaire Discussion and Mock Session

The Individual Questionnaire of the study was discussed repeatedly, followed by mock sessions. They were divided in to two-member teams and one was assigned to take the role of Field Investigator and the other should be respondent. On completion of one round, they were asked to reverse the roles. The exercise was debriefed after everyone has got atleast two chances for interviewing.

Day 5: 31.10.2014

Field Practice 2

Session

The Day started with a written test for the participants based on the training to gauge their understanding on the objectives of the study and the methodology adopted. The result was used in assigning roles to the team members as well.

Session:

The Day's second session was planning for the field visit. Orientation about 'where, how and what' of the day's programme, role specification, role allocation, etc were carried out by the Facilitators. Further the teams were led to two villages where prior information about the visit

was given to ensure availability of farmers/villagers. However, the team had to do all the processes of a survey village. They were in grouped in to two by the facilitators. Certain responsibilities were assigned to the better performed trainees based on the test held in the first session. While one group does the exercise the other one was instructed to observe; and the role was reversed for the second village.

Session:

The participants came back to the training centre in the evening and held discussions in their group, made presentations using chart, white board etc. The issues they brought out were basically about how they assessed their performance using including some ordinal scales. The exercise has helped in identifying the individual abilities and the areas for further improvement through practice.

Day 6: 01.11.2014

The participants were divided in to different categories in the morning session based on their level of understanding of the topic and skills. For those who required further practice the session continued for practice. Those who could supervise the team were identified as Group Supervisors and given further training on their specific roles.

The Team had three persons and the roles were divided among them in advance to add efficiency to the team work. While conducting the FGD, one person to lead the discussion, one person to keep track of the discussion and ensure that all the required issues are discussed, and the third person to record the discussion. Individual interviews were to be conducted by all the three independently.

The Supervisor was in charge of three Teams and each Team comprised three Team members and had the following responsibilities:

- to contact the village level contact persons given by the MDPU.
- Identify the sample of individuals selected for the study
- Fix the time for FGD and for individual interviews
- Assign each team for each village
- Ensure they complete the given tasks for one village
- Review the progress every evening and update the Research Coordinator, get instructions
- Check the filled in forms for its completeness, and randomly check the FGDs and interviews on site.

Session

The Afternoon session had a second test on the level of knowledge based on the training for all the participants.

Session

The work plan for the first week of field assessment slated to start from 3 November at Maduranthakam Block of Kanchipuram district was chalked out. The Training Programme thus concluded.

ANNEXURE 5

Field assessment: Date and Team Members for each village

Sl. No	District	Block	GP	Team Member 1	Team Member 2	Team Member 3	First Day of Visit
1	Kancheepuram	Maduranthagam	Sirunallur	M.Jagan	E.Aruldoss	P.Sarathi	05-11-2014
2	Kancheepuram	Maduranthagam	Averimedu	L.Gumaseelan	M.Seetha	M.Suvikkinraj	06-11-2014
3	Kancheepuram	Maduranthagam	Vilvarayanallur	A.Ramprasath	L.Singaravelu	K.Senthamarai	06-11-2014
4	Kancheepuram	Maduranthagam	Andavakkam	L.Singaravelu	P.Ashok	S.Rajarajeshwari	08-11-2014
5	Kancheepuram	Maduranthagam	Vedavakkam	A.Ramprasath	G.Praveen Kumar	M.Papitha	08-11-2014
6	Kancheepuram	Acharapakkam	Kiliyanagar	M.Jagan	D.Mathiyazhagan	S.Senthamizhselvi	08-11-2014
7	Kancheepuram	Acharapakkam	Mathur	L.Gumaseelan	P.Sarathi	V.Vimala	08-11-2014
8	Kancheepuram	Acharapakkam	Gudalur	M.Suvikkinraj	P.Arokiaprasath	P.Illakiya	09-11-2014
9	Kancheepuram	Acharapakkam	Morapakkam	M.Seetha	R.Nisenthini	E.Aruldoss	09-11-2014
10	Kancheepuram	Acharapakkam	Perumbakkam	S.Gopalakrishnan	K.Venkatesan	K.Senthamarai	09-11-2014
11	Kancheepuram	Acharapakkam	Sempoondi	K.Kaviyarasan	L.Akalya	G.Mathiyazhagi	09-11-2014
12	Villupuram	Marakkanam	Alankupam	L.Singaravelu	P.Sarathi	V.Vimala	10-11-2014
13	Villupuram	Marakkanam	Endiyur	K.Kaviyarasan	L.Akalya	G.Mathiyazhagi	10-11-2014
14	Villupuram	Marakkanam	Vada Nerukunam	M.Jagan	S.Senthamizhselvi	D.Mathiyazhagan	10-11-2014
15	Kancheepuram	Acharapakkam	Padiri	S.Gopalakrishnan	K.Senthamarai	K.Venkatesan	10-11-2014
16	Villupuram	Marakkanam	Molasur	A.Ramprasath	G.Praveen Kumar	M.Papitha	11-11-2014
17	Kancheepuram	Acharapakkam	Agili	M.Seetha	R.Nisenthini	E.Aruldoss	11-11-2014
18	Kancheepuram	Acharapakkam	Kilamur	M.Suvikkinraj	P.Arokiaprasath	P.Illakiya	11-11-2014
19	Kancheepuram	Acharapakkam	Velamur	L.Singaravelu	P.Ashok	S.Rajarajeshwari	11-11-2014
20	Villupuram	Vanur	Kondhamur	A.Ramprasath	P.Ashok	V.Vimala	12-11-2014
21	Villupuram	Thiyagadurugam	Mudiyanur	M.Jagan	P.Ashok	P.Sarathi	24-11-2014
22	Dharmapuri	Karimangalam	Kottumaranahalli	S.Gopalakrishnan	M.Seetha	M.Papitha	24-11-2014
23	Dharmapuri	Karimangalam	Naganampatti	L.Singaravelu	R.Nisenthini	V.Vimala	24-11-2014
24	Villupuram	Thiyagadurugam	Kurur	G.Mathiyazhagi	K.Venkatesan	S.Senthamizhselvi	25-11-2014
25	Villupuram	Thiyagadurugam	Nagalur	K.Kaviyarasan	K.Senthamarai	R.Munusamy	25-11-2014

26	Dharmapuri	Karimangalam	Adilam	P.Arokiaprasath	K.Sujatha	L.Akalya	25-11-2014
27	Dharmapuri	Karimangalam	Keragodahalli	A.Ramprasath	D.Mathiyazhagan	P.Illakiya	25-11-2014
28	Dharmapuri	Karimangalam	Poonathanahalli	E.Aruldoss	S.Rajarajeshwari	M.Suvikkinraj	25-11-2014
29	Dharmapuri	Karimangalam	Beharahalli	P.Arokiaprasath	G.Praveen Kumar	L.Akalya	26-11-2014
30	Dharmapuri	Karimangalam	Karimangalama	L.Singaravelu	R.Nisenthini	V.Vimala	26-11-2014
31	Dharmapuri	Morappur	Bannikulam	S.Gopalakrishnan	M.Seetha	M.Papitha	26-11-2014
32	Dharmapuri	Karimangalam	Poomandahalli	E.Aruldoss	M.Suvikkinraj	S.Rajarajeshwari	27-11-2014
33	Dharmapuri	Morappur	Chinnagoundampatti	A.Ramprasath	D.Mathiyazhagan	P.Illakiya	27-11-2014
34	Dharmapuri	Morappur	Muniyampadi	E.Aruldoss	M.Suvikkinraj	S.Rajarajeshwari	27-11-2014
35	Madurai	Thirupparankundram	Perungudi	K.Kaviyarasan	S.Senthamizhselvi	P.Ashok	27-11-2014
36	Madurai	Thirupparankundram	Soorakulam	G.Mathiyazhagi	L.Gumaseelan	P.Sarathi	27-11-2014
37	Madurai	Thirupparankundram	Vadivelkarai	M.Jagan	K.Venkatesan	K.Senthamarai	27-11-2014
38	Dharmapuri	Morappur	Dhasarahalli	S.Gopalakrishnan	M.Seetha	M.Papitha	28-11-2014
39	Dharmapuri	Morappur	Kelavalli	A.Ramprasath	D.Mathiyazhagan	P.Illakiya	28-11-2014
40	Dharmapuri	Morappur	Pallipatti	P.Arokiaprasath	G.Praveen Kumar	L.Akalya	28-11-2014
41	Dharmapuri	Morappur	Ranimookkanur	L.Singaravelu	R.Nisenthini	V.Vimala	28-11-2014
42	Madurai	Chellampatti	Kesavampatti	K.Kaviyarasan	S.Senthamizhselvi	P.Ashok	29-11-2014
43	Madurai	Chellampatti	Valanthur	L.Gumaseelan	G.Mathiyazhagi	P.Sarathi	29-11-2014
44	Madurai	Kallikudi	Kurayur	M.Jagan	K.Venkatesan	K.Senthamarai	29-11-2014
45	Dharmapuri	Morappur	Thippampatti	L.Singaravelu	V.Vimala	R.Nisenthini	01-12-2014
46	Dharmapuri	Morappur	Jagupatti	M.Seetha	G.Praveen Kumar	K.Sujatha	01-12-2014
47	Dharmapuri	Morappur	Samandahalli	P.Arokiaprasath	M.Papitha	L.Akalya	02-12-2014
48	Dharmapuri	Morappur	Echampadi	A.Ramprasath	D.Mathiyazhagan	P.Illakiya	02-12-2014
49	Dharmapuri	Morappur	Gettupatti	E.Aruldoss	M.Suvikkinraj	S.Rajarajeshwari	02-12-2014
50	Madurai	Kallikudi	Melanesaneri	G.Mathiyazhagi	M.Jagan	K.Senthamarai	02-12-2014
51	Madurai	Thirumangalam	Kinnimangalam	K.Kaviyarasan	P.Ashok	P.Sarathi	02-12-2014
52	Krishnagiri	Shoolagiri	Pathakotta	P.Arokiaprasath	L.Akalya	M.Papitha	03-12-2014
53	Krishnagiri	Shoolagiri	Samanapalli	A.Ramprasath	D.Mathiyazhagan	P.Illakiya	03-12-2014
54	Krishnagiri	Veppananaplli	Beemandapalli	L.Singaravelu	V.Vimala	R.Nisenthini	03-12-2014
55	Dharmapuri	Morappur	Kongarapatti	E.Aruldoss	M.Suvikkinraj	K.Sujatha	03-12-2014

56	Dharmapuri	Morappur	Vagurappampatti	M.Seetha	G.Praveen Kumar	S.Rajarajeshwari	03-12-2014
57	Madurai	Thirumangalam	Maravankulam	L.Gumaseelan	P.Ashok	K.Senthamarai	03-12-2014
58	Madurai	Thirumangalam	Vadakarai	K.Kaviyarasan	M.Jagan	P.Sarathi	03-12-2014
59	Madurai	Thirumangalam	Urappoor	G.Mathiyazhagi	K.Venkatesan	S.Senthamizhselvi	04-12-2014
60	Krishnagiri	Veppananaplli	Kuppachiparai	L.Singaravelu	P.Illakiya	M.Papitha	05-12-2014
61	Krishnagiri	Hosur	Thorappalli	A.Ramprasath	M.Seetha	L.Akalya	05-12-2014
62	Krishnagiri	Krishnagiri	Gooliyam	E.Aruldoss	G.Praveen Kumar	R.Nisenthini	05-12-2014
63	Krishnagiri	Krishnagiri	Kondeppalli	S.Gopalakrishnan	D.Mathiyazhagan	S.Rajarajeshwari	05-12-2014
64	Krishnagiri	Krishnagiri	Sembadamuthur	P.Arokiaprasath	M.Suvikkinraj	V.Vimala	05-12-2014
65	Madurai	Thirumangalam	Vidathakulam	K.Kaviyarasan	K.Venkatesan	P.Ashok	05-12-2014
66	Pudukottai	Arimalam	Perungudi	L.Gumaseelan	P.Sarathi	K.Senthamarai	05-12-2014
67	Pudukottai	T.V.Kulam	Maniambalam	G.Mathiyazhagi	M.Jagan	S.Senthamizhselvi	05-12-2014
68	Vellore	Kadpadi	Jabrapet	A.Ramprasath	M.Seetha	L.Akalya	08-12-2014
69	Vellore	Kadpadi	Latheri	L.Singaravelu	P.Illakiya	M.Papitha	08-12-2014
70	Vellore	Kadpadi	Melmoil	P.Arokiaprasath	M.Suvikkinraj	V.Vimala	08-12-2014
71	Vellore	Kadpadi	Pasumathur	S.Gopalakrishnan	S.Rajarajeshwari	D.Mathiyazhagan	08-12-2014
72	Pudukottai	T.V.Kulam	Manjanviduthy	L.Gumaseelan	P.Ashok	P.Sarathi	08-12-2014
73	Pudukottai	T.V.Kulam	Thiruvarangulam	G.Mathiyazhagi	K.Venkatesan	K.Senthamarai	08-12-2014
74	Pudukottai	T.V.Kulam	Vadakadu	K.Kaviyarasan	M.Jagan	S.Senthamizhselvi	08-12-2014
75	Villupuram	Olakur	Puliyur	K.Sujatha	K.Venkatesan	R.Nisenthini	09-12-2014
76	Vellore	Walajapet	Ammananthangal	E.Aruldoss	G.Praveen Kumar	R.Nisenthini	09-12-2014
77	Vellore	Walajapet	Ammorr	M.Seetha	R.Nisenthini	G.Praveen Kumar	10-12-2014
78	Vellore	Walajapet	Padiyambakkam	L.Singaravelu	P.Illakiya	K.Sujatha	10-12-2014
79	Vellore	Kaveripakkam	Mangalam	A.Ramprasath	E.Aruldoss	L.Akalya	10-12-2014
80	Vellore	Kaveripakkam	Siruvalayam	S.Gopalakrishnan	S.Rajarajeshwari	D.Mathiyazhagan	10-12-2014
81	Vellore	Kaveripakkam	Thuraiperumbakkam	P.Arokiaprasath	M.Suvikkinraj	V.Vimala	10-12-2014
82	Pudukottai	Gandarvakottai	Mattangal	G.Mathiyazhagi	M.Jagan	K.Senthamarai	10-12-2014
83	Pudukottai	Gandarvakottai	Sundampatti	K.Kaviyarasan	P.Ashok	P.Sarathi	10-12-2014
84	Pudukottai	Kunnardarkoil	Vandakottai	L.Gumaseelan	K.Venkatesan	M.Sasi Kumar	10-12-2014
85	Madurai	Kallikudi	T.Arasapatti	L.Gumaseelan	K.Venkatesan	S.Senthamizhselvi	11-12-2014

86	Vellore	Nemili	Uliyanallur	P.Arokiaprasath	M.Suvikkinraj	V.Vimala	12-12-2014
87	Vellore	Nemili	Vettankulam	E.Aruldoss	L.Akalya	K.Sujatha	12-12-2014
88	Vellore	Sholinghur	Kodaikal	S.Gopalakrishnan	S.Rajarajeshwari	D.Mathiyazhagan	12-12-2014
89	Vellore	Sholinghur	Pulivalam	L.Singaravelu	P.Illakiya	M.Sasi Kumar	12-12-2014
90	Vellore	Sholinghur	Rendadi	M.Seetha	R.Nisenthini	M.Sasi Kumar	12-12-2014
91	Pudukottai	Kunnardarkoil	Kovilveerakudi	G.Mathiyazhagi	P.Ashok	K.Senthamarai	12-12-2014
92	Pudukottai	Pudukottai	Thirumalaraya Samudram	L.Gumaseelan	M.Jagan	P.Sarathi	12-12-2014
93	Pudukottai	Pudukottai	Mokkampatti	K.Kaviyarasan	K.Venkatesan	S.Senthamizhselvi	12-12-2014
94	Thiruvallur	Poondi	Attrambakkam	D.Raja	G.Praveen Kumar	R.Nisenthini	15-12-2014
95	Thiruvallur	Poondi	Eraiyur	L.Singaravelu	P.Illakiya	M.Sasi Kumar	15-12-2014
96	Vellore	Nemili	Kilveethi	S.Gopalakrishnan	S.Rajarajeshwari	D.Mathiyazhagan	15-12-2014
97	Vellore	Nemili	Mahendravadi	P.Arokiaprasath	M.Suvikkinraj	V.Vimala	15-12-2014
98	Vellore	Nemili	Paraperi	E.Aruldoss	L.Akalya	M.Papitha	15-12-2014
99	Pudukottai	Pudukottai	Vagavasal	G.Mathiyazhagi	P.Sarathi	P.Ashok	15-12-2014
100	Pudukottai	Thirumayam	Elanjavur	K.Kaviyarasan	M.Jagan	S.Senthamizhselvi	15-12-2014
101	Pudukottai	Thirumayam	Kulipirai	L.Gumaseelan	K.Venkatesan	K.Senthamarai	15-12-2014
102	Thiruvallur	Cholavaram	Parnambedu	L.Singaravelu	P.Illakiya	M.Sasi Kumar	17-12-2014
103	Thiruvallur	Cholavaram	Andavoyal	A.Ramprasath	G.Praveen Kumar	R.Nisenthini	17-12-2014
104	Thiruvallur	Cholavaram	Arasur	P.Arokiaprasath	L.Akalya	M.Papitha	17-12-2014
105	Pudukottai	Thirumayam	Meyyappatti	L.Gumaseelan	M.Jagan	P.Ashok	17-12-2014
106	Cuddalore	Cuddalore	C N Palayam	G.Mathiyazhagi	M.Suvikkinraj	P.Sarathi	18-12-2014
107	Cuddalore	Cuddalore	Guanamangalam	K.Kaviyarasan	S.Senthamizhselvi	S.Rajarajeshwari	18-12-2014
108	Cuddalore	Cuddalore	Thirumanikuzhi	M.Seetha	K.Venkatesan	K.Senthamarai	18-12-2014
109	Cuddalore	Cuddalore	Vanamadevi	S.Gopalakrishnan	E.Aruldoss	V.Vimala	18-12-2014
110	Cuddalore	Cuddalore	Vellapakkam	K.Kaviyarasan	M.Suvikkinraj	P.Sarathi	19-12-2014
111	Cuddalore	Cuddalore	Vilangalpattu	M.Seetha	M.Jagan	K.Senthamarai	19-12-2014
112	Thiruvallur	Gummudipoondi	Ayanallur	P.Arokiaprasath	L.Akalya	M.Papitha	19-12-2014
113	Thiruvallur	Cholavaram	Chinnambedu	A.Ramprasath	G.Praveen Kumar	R.Nisenthini	19-12-2014
114	Thiruvallur	Cholavaram	Medur	L.Singaravelu	P.Illakiya	M.Sasi Kumar	19-12-2014

115	Cuddalore	Cuddalore	Varakalpatti	S.Gopalakrishnan	P.Ashok	V.Vimala	20-12-2014
116	Cuddalore	Cuddalore	Vellakkarai	G.Mathiyazhagi	K.Venkatesan	S.Rajarajeshwari	20-12-2014
117	Cuddalore	Annagramam	Pallavarayanatham	L.Gumaseelan	E.Aruldoss	S.Senthamizhselvi	20-12-2014
118	Cuddalore	Annagramam	Agaram	L.Gumaseelan	K.Venkatesan	V.Vimala	22-12-2014
119	Cuddalore	Annagramam	Melkavarapattu	K.Kaviyarasan	S.Senthamizhselvi	D.Mathiyazhagan	22-12-2014
120	Cuddalore	Annagramam	Melkumaramangalam	M.Jagan	M.Suvikkinraj	K.Senthamarai	22-12-2014
121	Thiruvallur	Thiruvalangadu	Harichandrapuram	A.Ramprasath	G.Praveen Kumar	L.Akalya	22-12-2014
122	Thiruvallur	Gummudipoondi	Alinjivakkam	L.Singaravelu	P.Illakiya	M.Sasi Kumar	22-12-2014
123	Thiruvallur	Gummudipoondi	Athivakkam	P.Arokiaprasath	L.Akalya	K.Sujatha	22-12-2014
124	Cuddalore	Annagramam	Ezhumedu	G.Mathiyazhagi	S.Rajarajeshwari	P.Ashok	23-12-2014
125	Cuddalore	Annagramam	P.N. Palayam	S.Gopalakrishnan	E.Aruldoss	P.Sarathi	23-12-2014
126	Cuddalore	Annagramam	Palur	S.Gopalakrishnan	P.Ashok	S.Rajarajeshwari	27-12-2014
127	Cuddalore	Annagramam	Sanyasipettai	L.Gumaseelan	E.Aruldoss	V.Vimala	27-12-2014
128	Cuddalore	Annagramam	Sitarasur	K.Kaviyarasan	P.Arokiaprasath	R.Nisenthini	27-12-2014
129	Cuddalore	Annagramam	Natham	G.Mathiyazhagi	K.Venkatesan	P.Illakiya	27-12-2014
130	Thiruvallur	Ekkadu	Kilambakkam	M.Jagan	G.Praveen Kumar	K.Senthamarai	27-12-2014
131	Thiruvallur	Gummudipoondi	Guruvoyal	A.Ramprasath	M.Sasi Kumar	M.Papitha	27-12-2014
132	Cuddalore	Annagramam	Sundaravandi	L.Singaravelu	P.Sarathi	S.Senthamizhselvi	28-12-2014
133	Villupuram	Milam	Kollar	G.Mathiyazhagi	E.Aruldoss	M.Papitha	29-12-2014
134	Villupuram	Olakur	Olambur	S.Gopalakrishnan	S.Rajarajeshwari	P.Ashok	29-12-2014
135	Villupuram	Olakur	Aachipakkam	P.Arokiaprasath	V.Vimala	P.Illakiya	29-12-2014
136	Villupuram	Milam	Salai	M.Jagan	M.Sasi Kumar	K.Senthamarai	30-12-2014
137	Villupuram	Milam	Vidur	A.Ramprasath	G.Praveen Kumar	S.Senthamizhselvi	30-12-2014
138	Villupuram	Milam	Vilukam	L.Gumaseelan	M.Suvikkinraj	M.Papitha	30-12-2014
139	Villupuram	Olakur	Neikuppi	K.Kaviyarasan	P.Sarathi	D.Mathiyazhagan	30-12-2014
140	Villupuram	Vanur	Korekeni	P.Arokiaprasath	K.Venkatesan	V.Vimala	05-01-2015
141	Villupuram	Vanur	Ponnam Boondi	A.Ramprasath	R.Nisenthini	S.Rajarajeshwari	06-01-2015
142	Villupuram	Chinnasalem	Thottapadi	K.Kaviyarasan	E.Aruldoss	K.Senthamarai	06-01-2015
143	Villupuram	Kallakurichi	Thenkeeranur	G.Mathiyazhagi	D.Mathiyazhagan	P.Sarathi	06-01-2015
144	Villupuram	Kallakurichi	Varathappanur	L.Singaravelu	G.Praveen Kumar	M.Papitha	06-01-2015

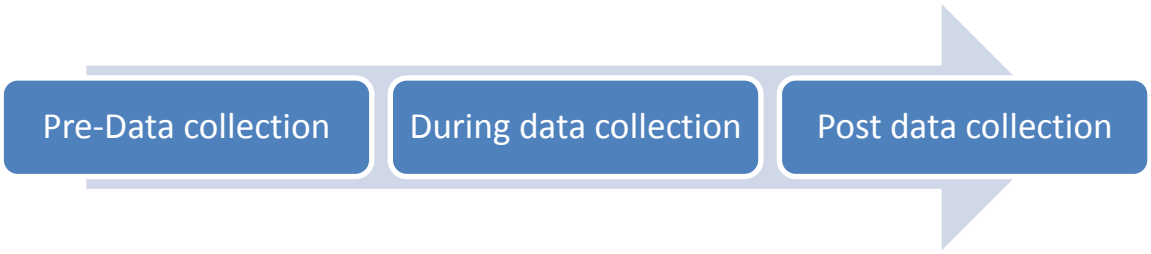
145	Villupuram	Chinnasalem	Anumanandal	L.Gumaseelan	P.Ashok	P.Illakiya	06-01-2015
146	Villupuram	Chinnasalem	Chinnasalem	M.Jagan	M.Suvikkinraj	S.Senthamizhselvi	06-01-2015
147	Villupuram	Villupuram	Sathanur Papanapattu	A.Ramprasath	V.Vimala	R.Nisenthini	07-01-2015
148	Villupuram	Villupuram	V.Salai	P.Arokiaprasath	K.Venkatesan	S.Rajarajeshwari	07-01-2015
149	Villupuram	Villupuram	Vikiravandi	L.Singaravelu	D.Mathiyazhagan	M.Papitha	08-01-2015
150	Villupuram	Kallakurichi	Thachur	L.Gumaseelan	M.Suvikkinraj	P.Ashok	08-01-2015

ANNEXURE 6

Quality Control Measures : Report by external Quality Controller Mr Abdul Latheef

Field Process to ensure Quality Assurance and Control:

The present study involved different process to ensure high quality error free data collection. This process emphasis was given to ensure quality assurance at each process. Important process followed as below



A. Pre- data collection:

The pre-data collection phase is very crucial period of any research activity or data collection process. Effective utilization of this process will be result in high quality data gathering. This study the following important processes were followed.

1. **Selection of samples:**
   Statistically significant sample were drawn. Before selecting the sample from the MDPU list the discussion were made on different possibilities of sampling process, different strata like land holdings, livestock, caste, education, irrigated and non-irrigated land holdings etc. The main objective was to make equal representation of all strata among the list of beneficiaries.
2. **Designing and Standardizing the tool:**

   The QPA for Individual and group FGD tools were carefully designed and tested. All questions were framed according to the main objectives of the study. Tools were formatted with skip options, clear instructions and probing hints for easy administration in the field.

3. **Tool Translating and making into bilingual:**
   Both tools were translated into bilingual language (English-Tamil). So that language shouldn't an obstacle to the field enumerators and respondents.

4. **Testing the tool:**

The bilingual tools were put for a test to see the flow of the questions; to see does the outputs were meeting the desired objectives and how information's were coming out.

5. **Training in - house:**

Three days in-house training and one day field exposure carried out for the research investigators on the project background, study process, sampling methodology, selection of respondents, administering tools and documentation. PowerPoint based presentation, question answers, mock sessions and role plays were conducted during training.

6. **Training – Field Exposure:**

For better understanding, real exposure and practical knowledge the entire team taken to the non-sample villages for doing FGD and Individual interviews.

7. **Experience sharing and course corrections:** After the field exposure next day learning cum experience sharing session was organized so that difficulties on tool administering, selection of respondents and doubts were clarified. Special focus was given on documenting the clean responses for each questions and how to probe at different levels.

8. **Assessment of training and field enumerators understanding:**
   A written test was conducted on after a comprehensive training and field exposure to assess the output of training quality, Conceptual clarity, understanding on the sampling method and tools. Those who scored less than fixed marks were put under additional handholding.

9. **Freezing the tool:**
   Based on the feedback from team during training and field exposure the tools were further fine tuned and freezed for roll out.

10. **Developing and finalizing Quality Control Protocol:**

Data quality is the reliability and application efficiency of data, particularly at different stages of data collection process. Data quality assurance (DQA) is the process of verifying the reliability and efficiency of data. Data quality control is the process of strict follow of the protocol at each level to get high quality data.

Data quality is an assessment of data's fitness to serve its purpose in a given context. Aspects of data quality include; Accuracy, Completeness, Update status, Relevance, Consistency across data sources, Reliability, Appropriate presentation and Accessibility.

Objectives

- Identify factors affecting the accuracy, clarity, validity and reliability of survey data
- How to prevent and correct errors,
- How to avoid common causes of mis-reporting
- The essential role of supervision and team interaction in the field

Different activities to ensure and effective execution of this QCP were carried out during the second phase of study

B. During data collection:

The second phase of good research/data collection is during data collection. This is the execution phase of pre-data collection processes. This phase is mainly to monitor and ensure of effective administration of all activities and strict adherence to the standard instructions of training.

During this phase following processes were followed.

1. **Ensuring the correct selection of samples:**

   It is ensured at every level the selection of respondents was as per the sampling process wherever possible.

2. **Field process:**
   Strictly monitored the field processes were followed as per training provided and well established communication system were followed and reported on daily basis.

3. **Implantation of QCP:**
   Different activities were carried out to ensure high quality authentic data from the field. The QC had made initial, concurrent and post data collection visits to field to validate the data collection.

a. Observing an Interview:

Initial stages visits were made to observe, to ensure quality and to hand hold the field

enumerators for better management and documentation of high quality data across the study consistently.

An FGD @ Madurandhagam

WA Staff exhibiting recording books

b. Spot check Visits:

The Quality Controller had made few spot visits to the data collection places without informing to the field team to verify and ensure the authenticity, to verify the adherence of process and protocols.
During this visits FGD and Individual interviews were observed and validated at different villages.

c. Cross-verification of interviews:

QC had made few visits to verify the quality and reliability of data by redoing the study. The QC asked about the length and quality of the interview, reaction to the interviewer, and basic demographic data. The demographic information is cross-checked against the information reported by the interviewers on the questionnaires.

d. Validation of survey:

Out of total sample 10% of respondents whose mobile numbers were functional were contacted over phone to validate the survey work. During call questions relate to visit of Field staff, FGD, individual meet and few main questions on tool were asked and verified.

e. Revisit:

During visits the QC has identified assistance of government officials to field survey team like providing accommodation in departmental guest houses, supplying food and transport facilities. This made QC to doubt on the influence of government officials on the quality of data.

It's decided to revisit those villages once again to verify the depth of contamination. Total 7 villages were revisited and met individual respondents then WA officials to ensure nothing has influenced on the data.

f. Documentation, translation and Checking of formats:

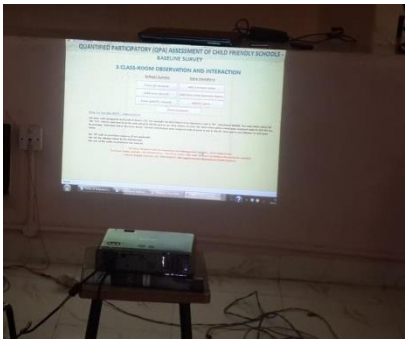
Each form was put under different levels of checks like individual checks, Supervisor, Coordinator and finally QC had checked randomly set of forms of each Field enumerators.

C. Post- data collection:

Post – data collection is the last stage of data collection. This stage the following processes were followed to ensure a high quality data entry for analysis and reporting.

1. **Data cleaning:**
   The collected data were cleaned like writing correct spellings skips marking, checking schedule serial numberings etc. before entering the data into database.

2. **Designing database:**
   Data base were designed in MS-Access, few entries were made to test and certify. Lot of validations was put in the database to clean the data at entry level itself.



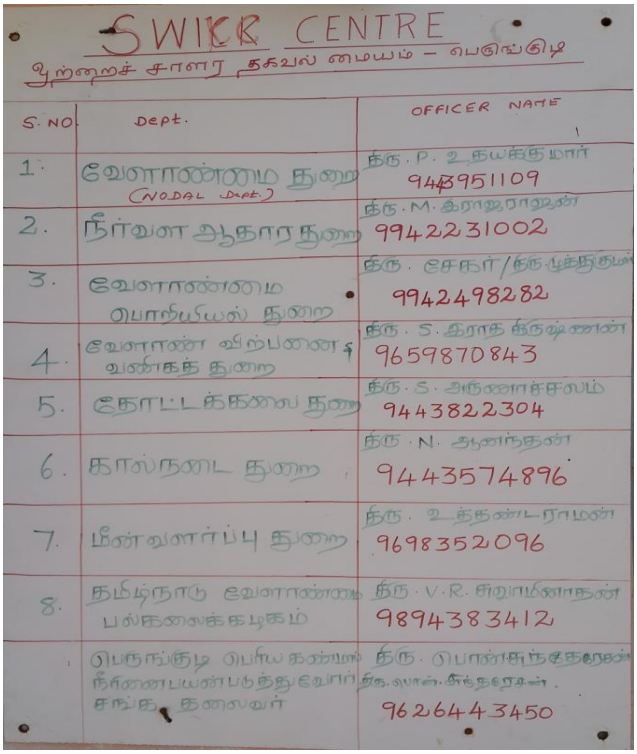
3. **Training to Data entry operators:**
   Data entry training is provided and handholding support was rendered for error free and clean data entry.

4. **Monitoring and back checking entered data:**
   There were two different teams were recruited. One team is mainly entering the data into database. The other team will do the back check of entered score and language translation. QC had monitored data entry and back check process at initial stage for efficiency and accuracy. It was ensured there were no scopes for any missing, deviation of data entry from the actual data. The final clean data to be handed over for the analysis and interpretation purpose.

All cleaned, verified and back checked data were sent towards analysis, interpretation and reporting purpose. Quality controls were applied at all the phase of study like pre, during and post study.

Few observations during QC visits:

Display of Key contact officials from eight departments



Display of IEC Materials

Farmer benefited through SRI Cultivation

Agri-Equipments

ANNEXURE 7

INTERPRETING QPA FINDINGS & TESTING PROCEDURE ADOPTED

There are three ways to interpret the findings.

- **Frequency Histograms:** The length of the bars in the histogram represents the proportion of groups (i.e., villages where FGDs were held) which gave that particular score: The longer the bar, the larger the proportion of groups that gave that score.
- **Proportion of scores below and above benchmark:** The benchmark score of 50 gives a convenient way to interpret performance: the proportion of all groups that scored more than 50 represents good performance (relative to the benchmark), while the proportion of all groups that scored less than 50 represents relatively poor performance.
- **Tests of statistical significance of differences in scores:** Tests of statistical significance were also carried out, using the non-parametric Wilcoxon Rank Sum test.[1] The samples (to be compared) comprised scores from each type of group discussion (e.g., group discussions with men in 100 slums). Since the samples were large (generally more than 100) the z-test statistic could be computed and used to test whether there were statistically significant differences (in the median value) across two groups (at the 5% error level).[2] The null hypothesis is that there is no difference. Since differences between scores from the two samples (e.g., group discussions with women and those with men) could be either way, two-tailed tests were carried out. The test procedure is detailed below (for the same case of user satisfaction levels) and all further findings on statistical significance of differences refer to this testing procedure.

Test Procedure: Merge and rank the observations (here scores) from the two samples (of size n_1 and n_2, with the former being smaller), and then separate them back into two samples and compute the sum of ranks for each sample. [3] The test statistic Z of the normal distribution is then computed as

$$Z = \frac{W - \mu_w}{\sigma_w} \text{ where}$$

W = sum of ranks of the smaller sample (with n_1 observations)

$\mu_w = n_1(n_1 + n_2 + 1)/2$, and

[1] Non-parametric statistical tests make no assumptions about the population parameters (e.g., mean and variance) unlike parametric tests (e.g., t-tests, z-test and F-tests) and may be used with data on any scale (e.g., ratio, interval, ordinal or nominal). Since QPA data are ordinal, and there is little idea about the parameters of the population distribution, non-parametric tests are best suited for testing hypothesis concerning QPA data.

[2] With large sample sizes (typically greater than 30), the Wilcoxon test statistic W approximates the normally distributed z-statistic (see, *inter alia,* Bellera and Julien, 2010).

[3] The testing procedure can be found in any standard text-book. Online material includes https://www.stat.auckland.ac.nz/~wild/ChanceEnc/Ch10.wilcoxon.pdf, http://www.real-statistics.com/non-parametric-tests/wilcoxon-rank-sum-test/, http://www.stat.ufl.edu/~ssaha/3024/CHAPTER14Examples.pdf. Ranks were computed using the Real Statistics Resource Pack Add-in for Microsoft EXCEL.

$$\sigma_w = \sqrt{\frac{n_1 n_2 (n_1 + n_2 + 1)}{12}}$$

Given the Z statistic, the corresponding probability determines whether or not to reject the null hypothesis (that the two samples have come from the same distribution). If this probability is less than 5%, the null hypothesis can be rejected with at least 95% confidence.

In the first case of Frequency of Visits by Engineers (see EXCEL sheet), n_1 = 44, n_2 = 100, W = 8454.5, μ_w = 7250 and σ_w = 230.579, making Z = 5.223807. This gives a P-value of >0.0001% indicating that the null hypothesis (that the scores came from the same distribution) is rejected.[4] This means that there is a statistically significant difference between the scores given for engineer's visit in Control and Treatment villages.

[4] The p-value is the probability of observing the calculated value of test statistic, should the null hypothesis be true. In the present example, therefore, there is a 96% chance of observing the calculated value of the z-statistic, if the null hypothesis is true: i.e., the two samples came from the same distribution.

ANNEXURE 8

List of final villages – attached

COMMUNITY-LEVEL ASSESSMENT OF CHANGE MANAGEMENT INITIATIVES
Final List of Villages in the Analysis

Sl No	District	Block	GP	Village
Control Villages				
1	Cuddalore	Cuddalore	C N Palayam	C N Palayam
2	Cuddalore	Cuddalore	Guanamangalam	Guanamangalam
3	Cuddalore	Cuddalore	Thirumanikuzhi	Thirumanikuzhi
4	Cuddalore	Cuddalore	Vanamadevi	Vanamadevi
5	Cuddalore	Cuddalore	Varakalpatti	Varakalpatti
6	Cuddalore	Cuddalore	Vellakkarai	Vellakkarai
7	Cuddalore	Cuddalore	Vellapakkam	Vellapakkam
8	Cuddalore	Cuddalore	Vilangalpattu	Vilangalpattu
9	Dharmapuri	Karimangalam	Adilam	Adilam
10	Dharmapuri	Karimangalam	Keragodahalli	Keragodahalli
11	Dharmapuri	Karimangalam	Kottumaranahalli	Kottumaranahalli
12	Dharmapuri	Karimangalam	Naganampatti	Naganampatti
13	Dharmapuri	Karimangalam	Poonathanahalli	Poonathanahalli
14	Dharmapuri	Karimangalam	Beharahalli	Beharahalli
15	Dharmapuri	Karimangalam	Karimangalama	Karimangalama
16	Dharmapuri	Karimangalam	Poomandahalli	Poomandahalli
17	Kancheepuram	Maduranthagam	Andavakkam	Andavakkam
18	Kancheepuram	Maduranthagam	Averimedu	Averimedu
19	Kancheepuram	Maduranthagam	Sirunallur	Sirunallur
20	Kancheepuram	Maduranthagam	Vedavakkam	Vedavakkam
21	Kancheepuram	Maduranthagam	Vilvarayanallur	Vilvarayanallur
22	Krishnagiri	Shoolagiri	Pathakotta	Pathakotta
23	Krishnagiri	Shoolagiri	Samanapalli	Samanapalli
24	Krishnagiri	Veppananaplli	Kuppachiparai	Kuppachiparai
25	Krishnagiri	Veppananaplli	Beemandapalli	Beemandapalli
26	Thiruvallur	Ekkadu	Kilambakkam	Kilambakkam
27	Vellore	Walajapet	Ammananthangal	Ammananthangal
28	Vellore	Walajapet	Ammorr	Ammorr
29	Vellore	Walajapet	Padiyambakkam	Padiyambakkam
30	Villupuram	Kallakurichi	Thachur	Thachur
31	Villupuram	Kallakurichi	Thenkeeranur	Thenkeeranur
32	Villupuram	Kallakurichi	Varathappanur	Varathappanur
33	Villupuram	Marakkanam	Alankupam	Alankupam

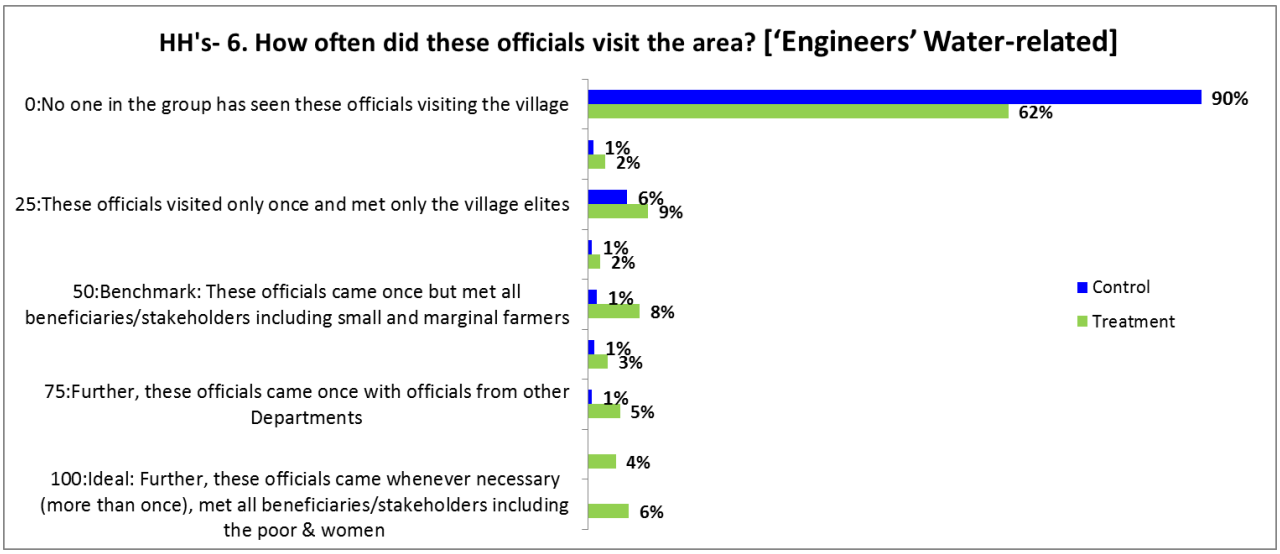
34	Villupuram	Marakkanam	Endiyur	Endiyur
35	Villupuram	Marakkanam	Molasur	Molasur
36	Villupuram	Marakkanam	Vada Nerukunam	Vada Nerukunam
37	Villupuram	Thiyagadurugam	Kurur	Kurur
38	Villupuram	Thiyagadurugam	Mudiyanur	Mudiyanur
39	Villupuram	Thiyagadurugam	Nagalur	Nagalur
40	Villupuram	Vanur	Kondhamur	Kondhamur
41	Villupuram	Vanur	Korekeni	Korekeni
42	Villupuram	Vanur	Ponnam Boondi	Ponnam Boondi
43	Villupuram	Villupuram	Sathanur Papanapattu	Sathanur Papanapattu
44	Villupuram	Villupuram	V.Salai	V.Salai
45	Villupuram	Villupuram	Vikiravandi	Vikiravandi
Treament Villages				
1	Cuddalore	Annagramam	Agaram	Agaram
2	Cuddalore	Annagramam	Ezhumedu	Ezhumedu
3	Cuddalore	Annagramam	Melkavarapattu	Melkavarapattu
4	Cuddalore	Annagramam	Melkumaramangalam	Melkumaramangalam
5	Cuddalore	Annagramam	P.N. Palayam	P.N. Palayam
6	Cuddalore	Annagramam	Pallavarayanatham	Pallavarayanatham
7	Cuddalore	Annagramam	Palur	Palur
8	Cuddalore	Annagramam	Sanyasipettai	Sanyasipettai
9	Cuddalore	Annagramam	Sitarasur	Sitarasur
10	Cuddalore	Annagramam	Sundaravandi	Sundaravandi
11	Dharmapuri	Morappur	Bannikulam	Bannikulam
12	Dharmapuri	Morappur	Chinnagoundampatti	Chinnagoundampatti
13	Dharmapuri	Morappur	Dhasarahalli	Dhasarahalli
14	Dharmapuri	Morappur	Kelavalli	Kelavalli
15	Dharmapuri	Morappur	Muniyampadi	Muniyampadi
16	Dharmapuri	Morappur	Ranimookkanur	Ranimookkanur
17	Dharmapuri	Morappur	Thippampatti	Thippampatti
18	Dharmapuri	Morappur	Echampadi	Echampadi
19	Dharmapuri	Morappur	Gettupatti	Gettupatti
20	Dharmapuri	Morappur	Jagupatti	Jagupatti
21	Dharmapuri	Morappur	Kongarapatti	Kongarapatti
22	Dharmapuri	Morappur	Vagurappampatti	Vagurappampatti
23	Kancheepuram	Acharapakkam	Agili	Agili
24	Kancheepuram	Acharapakkam	Kiliyanagar	Kiliyanagar
25	Kancheepuram	Acharapakkam	Mathur	Mathur
26	Kancheepuram	Acharapakkam	Morapakkam	Morapakkam
27	Kancheepuram	Acharapakkam	Padiri	Padiri
28	Kancheepuram	Acharapakkam	Sempoondi	Sempoondi

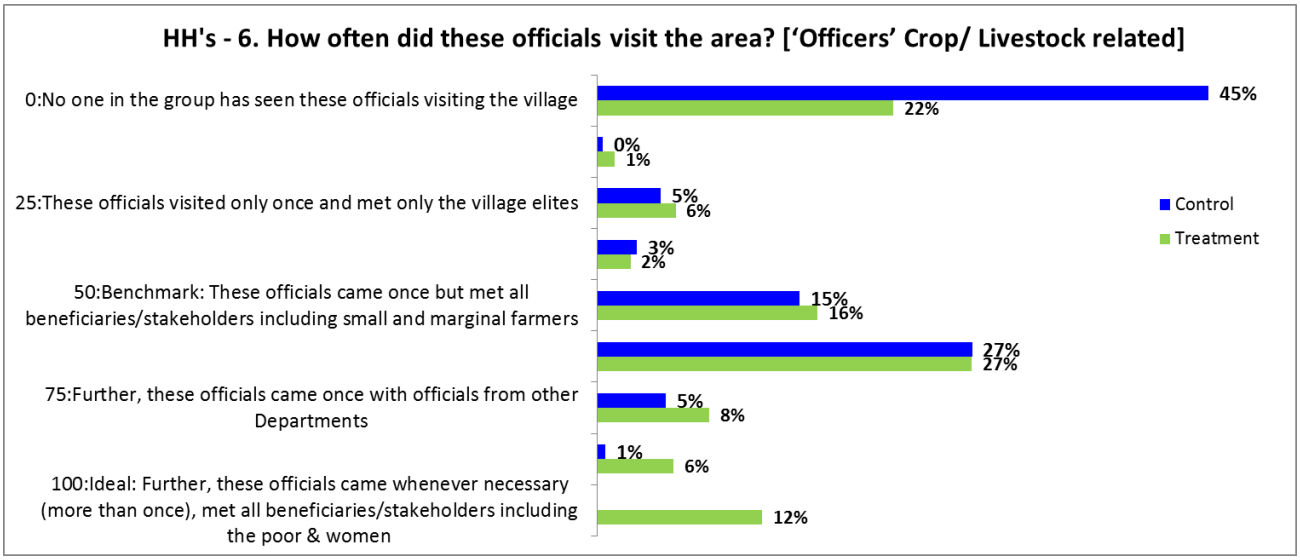
29	Kancheepuram	Acharapakkam	Velamur	Velamur
30	Krishnagiri	Hosur	Thorappalli	Thorappalli
31	Krishnagiri	Krishnagiri	Gooliyam	Gooliyam
32	Krishnagiri	Krishnagiri	Kondeppalli	Kondeppalli
33	Krishnagiri	Krishnagiri	Sembadamuthur	Sembadamuthur
34	Madurai	Chellampatti	Kesavampatti	Kesavampatti
35	Madurai	Chellampatti	Valanthur	Valanthur
36	Madurai	Kallikudi	Kurayur	Kurayur
37	Madurai	Kallikudi	Melanesaneri	Melanesaneri
38	Madurai	Kallikudi	T.Arasapatti	T.Arasapatti
39	Madurai	Thirumangalam	Kinnimangalam	Kinnimangalam
40	Madurai	Thirumangalam	Maravankulam	Maravankulam
41	Madurai	Thirumangalam	Urappoor	Urappoor
42	Madurai	Thirumangalam	Vadakarai	Vadakarai
43	Madurai	Thirumangalam	Vidathakulam	Vidathakulam
44	Madurai	Thirupparankundram	Perungudi	Perungudi
45	Madurai	Thirupparankundram	Soorakulam	Soorakulam
46	Madurai	Thirupparankundram	Vadivelkarai	Vadivelkarai
47	Pudukottai	Arimalam	Perungudi	Perungudi
48	Pudukottai	Gandarvakottai	Mattangal	Mattangal
49	Pudukottai	Gandarvakottai	Sundampatti	Sundampatti
50	Pudukottai	Kunnardarkoil	Vandakottai	Vandakottai
51	Pudukottai	Kunnardarkoil	Kovilveerakudi	Kovilveerakudi
52	Pudukottai	Pudukottai	Thirumalaraya Samudram	Thirumalaraya Samudram
53	Pudukottai	Pudukottai	Vagavasal	Vagavasal
54	Pudukottai	Pudukottai	Mokkampatti	Mokkampatti
55	Pudukottai	T.V.Kulam	Maniambalam	Maniambalam
56	Pudukottai	T.V.Kulam	Manjanviduthy	Manjanviduthy
57	Pudukottai	T.V.Kulam	Thiruvarangulam	Thiruvarangulam
58	Pudukottai	T.V.Kulam	Vadakadu	Vadakadu
59	Pudukottai	Thirumayam	Elanjavur	Elanjavur
60	Pudukottai	Thirumayam	Kulipirai	Kulipirai
61	Pudukottai	Thirumayam	Meyyappatti	Meyyappatti
62	Thiruvallur	Cholavaram	Parnambedu	Parnambedu
63	Thiruvallur	Cholavaram	Andavoyal	Andavoyal
64	Thiruvallur	Cholavaram	Arasur	Arasur
65	Thiruvallur	Cholavaram	Chinnambedu	Chinnambedu
66	Thiruvallur	Cholavaram	Medur	Medur
67	Thiruvallur	Gummudipoondi	Ayanallur	Ayanallur
68	Thiruvallur	Gummudipoondi	Alinjivakkam	Alinjivakkam
69	Thiruvallur	Gummudipoondi	Athivakkam	Athivakkam

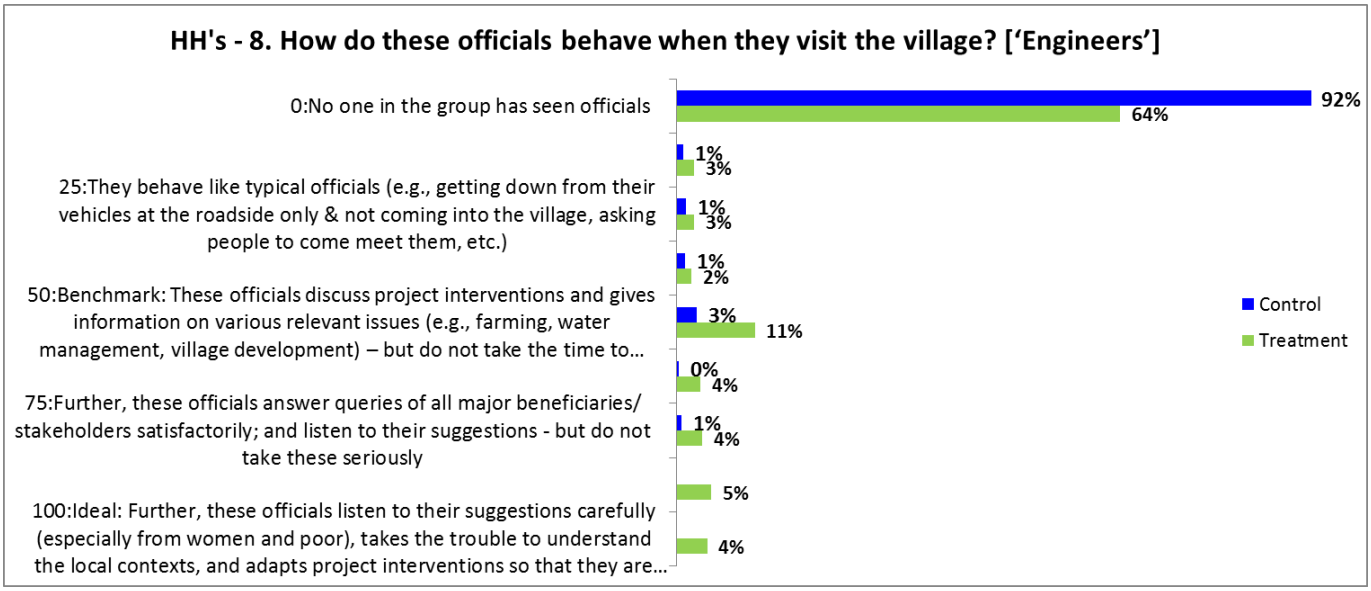
70	Thiruvallur	Gummudipoondi	Guruvoyal	Guruvoyal
71	Thiruvallur	Poondi	Attrambakkam	Attrambakkam
72	Thiruvallur	Poondi	Eraiyur	Eraiyur
73	Thiruvallur	Thiruvalangadu	Harichandrapuram	Harichandrapuram
74	Vellore	Kadpadi	Jabrapet	Jabrapet
75	Vellore	Kadpadi	Latheri	Latheri
76	Vellore	Kadpadi	Melmoil	Melmoil
77	Vellore	Kadpadi	Pasumathur	Pasumathur
78	Vellore	Kaveripakkam	Mangalam	Mangalam
79	Vellore	Kaveripakkam	Siruvalayam	Siruvalayam
80	Vellore	Kaveripakkam	Thuraiperumbakkam	Thuraiperumbakkam
81	Vellore	Nemili	Kilveethi	Kilveethi
82	Vellore	Nemili	Mahendravadi	Mahendravadi
83	Vellore	Nemili	Paraperi	Paraperi
84	Vellore	Nemili	Uliyanallur	Uliyanallur
85	Vellore	Nemili	Vettankulam	Vettankulam
86	Vellore	Sholinghur	Kodaikal	Kodaikal
87	Vellore	Sholinghur	Pulivalam	Pulivalam
88	Vellore	Sholinghur	Rendadi	Rendadi
89	Villupuram	Chinnasalem	Thottapadi	Thottapadi
90	Villupuram	Chinnasalem	Anumanandal	Anumanandal
91	Villupuram	Chinnasalem	Chinnasalem	Chinnasalem
92	Villupuram	Milam	Kollar	Kollar
93	Villupuram	Milam	Salai	Salai
94	Villupuram	Milam	Vidur	Vidur
95	Villupuram	Milam	Vilukam	Vilukam
96	Villupuram	Olakur	Olambur	Olambur
97	Villupuram	Olakur	Aachipakkam	Aachipakkam
98	Villupuram	Olakur	Neikuppi	Neikuppi
99	Villupuram	Olakur	Puliyur	Puliyur

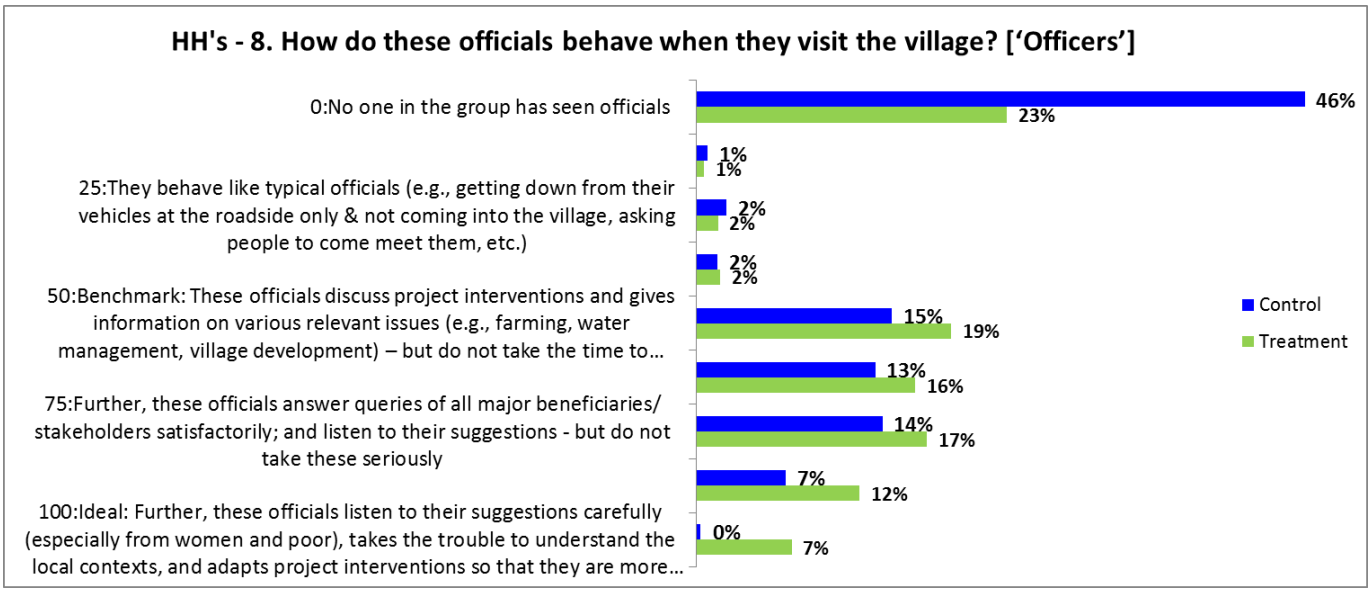
ANNEXURE 9

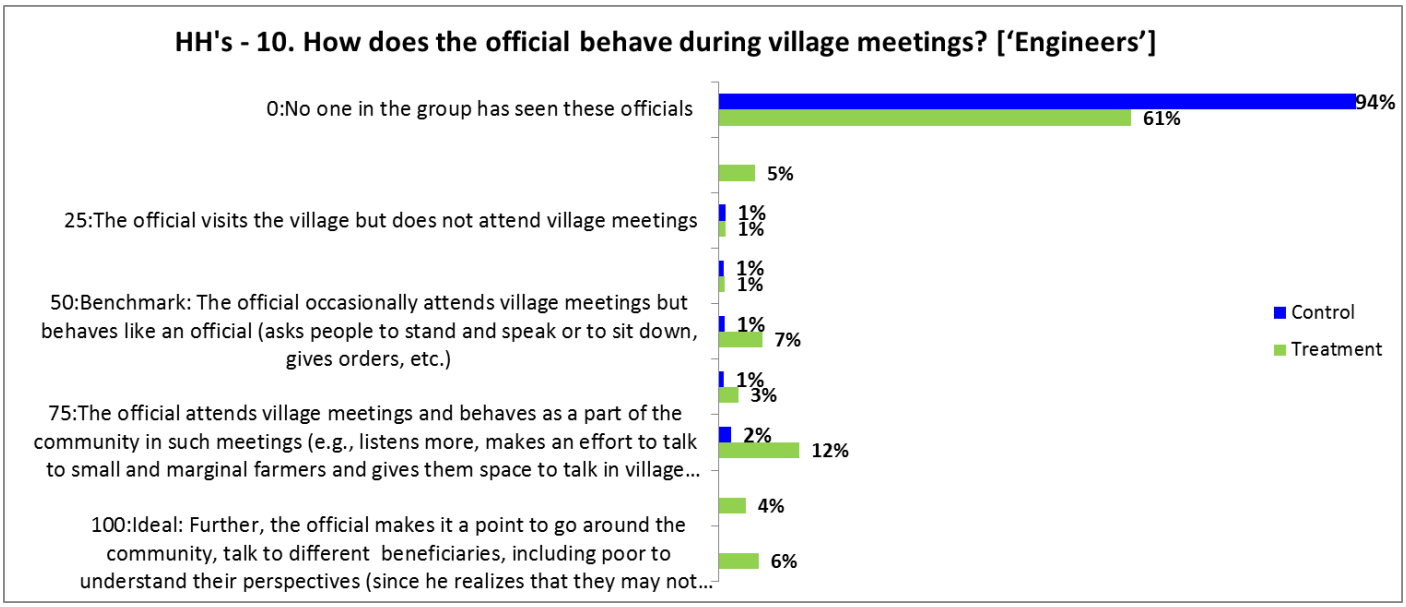
Tables from Individual Interviews

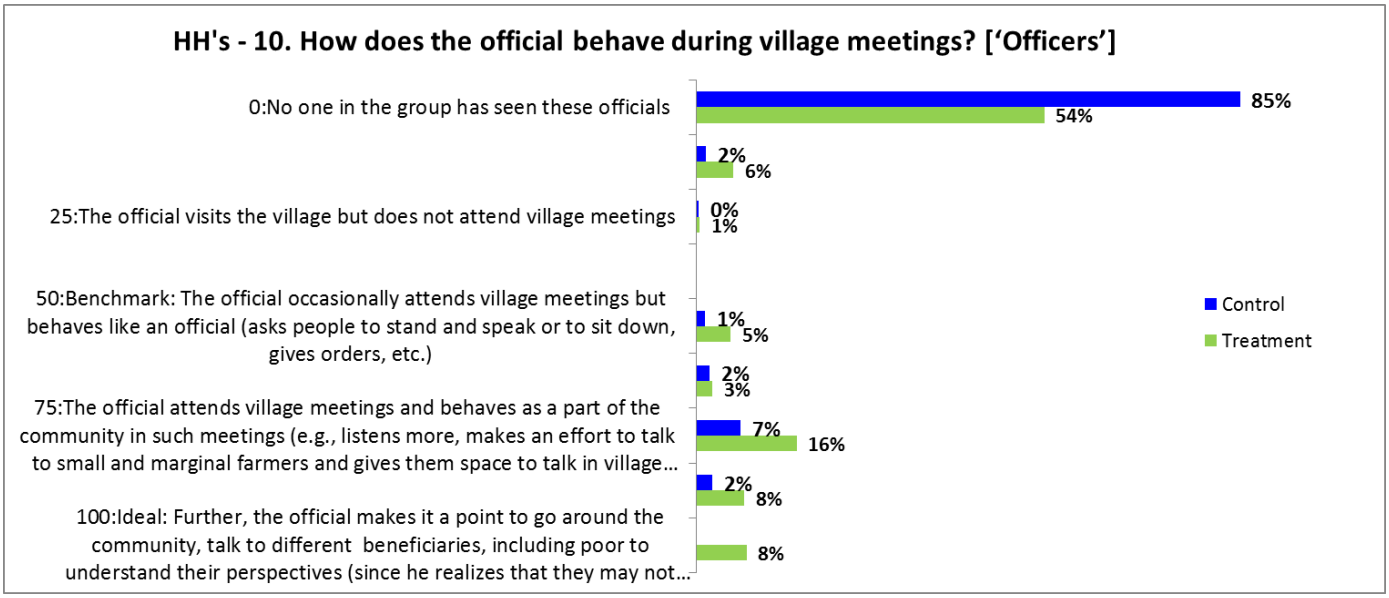





HH's - 8. How do these officials behave when they visit the village? ['Engineers']
0:No one in the group has seen officials
92%
64%
25:They behave like typical officials (e.g., getting down from their vehicles at the roadside only & not coming into the village, asking people to come meet them, etc.)
1%
3%
50:Benchmark: These officials discuss project interventions and gives information on various relevant issues (e.g., farming, water management, village development) – but do not take the time to…
1%
3%
75:Further, these officials answer queries of all major beneficiaries/ stakeholders satisfactorily; and listen to their suggestions - but do not take these seriously
1%
2%
100:Ideal: Further, these officials listen to their suggestions carefully (especially from women and poor), takes the trouble to understand the local contexts, and adapts project interventions so that they are…
3%
11%
0%
4%
1%
4%
5%
4%
Control
Treatment


HH's - 8. How do these officials behave when they visit the village? ['Officers']
0:No one in the group has seen officials
46%
23%
25:They behave like typical officials (e.g., getting down from their vehicles at the roadside only & not coming into the village, asking people to come meet them, etc.)
1%
1%
50:Benchmark: These officials discuss project interventions and gives information on various relevant issues (e.g., farming, water management, village development) – but do not take the time to…
2%
2%
75:Further, these officials answer queries of all major beneficiaries/ stakeholders satisfactorily; and listen to their suggestions - but do not take these seriously
2%
2%
100:Ideal: Further, these officials listen to their suggestions carefully (especially from women and poor), takes the trouble to understand the local contexts, and adapts project interventions so that they are more…
15%
19%
13%
16%
14%
17%
7%
12%
0%
7%
Control
Treatment


HH's - 10. How does the official behave during village meetings? ['Engineers']
0:No one in the group has seen these officials
25:The official visits the village but does not attend village meetings
50:Benchmark: The official occasionally attends village meetings but behaves like an official (asks people to stand and speak or to sit down, gives orders, etc.)
75:The official attends village meetings and behaves as a part of the community in such meetings (e.g., listens more, makes an effort to talk to small and marginal farmers and gives them space to talk in village...
100:Ideal: Further, the official makes it a point to go around the community, talk to different beneficiaries, including poor to understand their perspectives (since he realizes that they may not...
94%
61%
5%
1%
1%
1%
1%
1%
7%
1%
3%
2%
12%
4%
6%
Control
Treatment


HH's - 10. How does the official behave during village meetings? ['Officers']
0:No one in the group has seen these officials
25:The official visits the village but does not attend village meetings
50:Benchmark: The official occasionally attends village meetings but behaves like an official (asks people to stand and speak or to sit down, gives orders, etc.)
75:The official attends village meetings and behaves as a part of the community in such meetings (e.g., listens more, makes an effort to talk to small and marginal farmers and gives them space to talk in village...
100:Ideal: Further, the official makes it a point to go around the community, talk to different beneficiaries, including poor to understand their perspectives (since he realizes that they may not...
85%
54%
2%
6%
0%
1%
1%
5%
2%
3%
7%
16%
2%
8%
8%
Control
Treatment