**QUANTIFIED PARTICIPATORY ASSESSMENT OF THE IMPACT OF CHANGE MANAGEMENT ON WATER DELIVERY**

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# MAIN FINDINGS

* 1. **INTRODUCTION**

The main findings are grouped under five heads: (1) repairing existing infrastructure,

(2) local water conservation, (3) engineer’s attitudes and actions, (4) community participation in water supply services and (5) operation and maintenance. Each of these is discussed in greater detail below, while detailed findings are in Annexure 3.

# REPAIRING EXISTINGINFRASTRUCTURE

Overhead tanks (OHTs) comprise the bulk of expenditure in water supply infrastructure provision in villages. A comparison of the approaches followed in Change Management Group (CMG) settlements and the control settlements (Figure

1) shows the following:

* A smaller proportion of new OHTs were constructed in CMGsettlements.[1](#_bookmark0)
* A larger proportion of existing OHTs were repaired in CMG settlements Figure 1: New and rehabilitated water supply infrastructure invillages

New overhead tanks

22%

33%

Repair and re-use of

existing overhead tanks

24%

4%

Cleaning oftraditional

water sources

46%

42%

Desilting oftraditional

water sources

50%

25%

Prevention of contamination of traditional

water sources

56%

25%

PilotHabitations ControlHabitations

The findings on the cleaning, desilting and protection of traditional water bodies also bring out differences between the approaches followed in Pilot & Control habitations.

1 Note that the term settlement is used to represent habitations where either pilot TNRWSP programme or the Swajaldhara national programme has been implemented. The term Village Panchayat (VP) is also used to represent these programme habitations.

While roughly the same proportion of traditional water bodies were cleaned in both CMG and control settlements, a larger proportion of traditional water bodies were desilted and protected in CMG settlements.

The fact that roughly the same proportion was cleaned may not be directly as a result of the Swajaldharaprogramme in the control settlements, but due to a Government Order in 2004 requiring all villages to clean traditional waterbodies.

# LOCAL WATERCONSERVATION

The findings on local water conservation are summarised to cover two key aspects: whether or not the village water supply committee (VWSC) has implemented the conservation suggestions made by the Engineer and what steps have been taken to implement these decisions of the VWSC (see Figure 2)

Figure 2: Decisions and actions taken for village water conservation Perception of VWSC members

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **DECIDED TO****Water committee implemented at one****suggestion made the** |  | **12** |  |  | **82** |
| **STEPS TAKEN:****hours and****hours reduced, pit removed,****plugged, maintenance****etc.** | **8** |  | **84** |
|  | **Pilot** | **Control habitations** |  |

The findings are that:

* The VWSC has decided to act on the suggestions of the Engineer in a significantly larger proportion of CMG settlements (82%) as compared to control settlements(12%).
* The VWSC has taken active steps to implement specific suggestions of the Engineer in a larger proportion of CMG settlements (84%) than Control settlements(8%).

# ENGINEER’S ATTITUDES ANDACTIONS

Questions on the attitudes and actions of TWAD Board Engineers were put to both the women’s groups and SC households in separate Focus Group Discussions. The findings from these are presented and discussed separately below.

Figure 3: Engineers attitudes and actions: Perceptions of Women’s Groups

**VILLAGE VISITS:Regular,**

**meets& interacts with women's groups**

**75%**

**25%**

**BEHAVIOUR: Behavesas a community member, provides dalits&women**

**space to talk, listens more, etc.**

**84%**

**8%**

**ACTION: Consults women to identify problems, choose & implement**

**solutions**

**61%**

**8%**

**Pilothabitations Controlhabitations**

Figure 4: Engineers attitudes and actions: Perceptions of SC households

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **VILLAGE VISITS: Regular,****meets & interacts with dalit households****BEHAVIOUR: Behavesas****a community member, provides dalits spaceto talk, listens more, etc.at****village meetings****ACTION: Consults dalits to identify problems, choose & implement****solutions** |  |  |  | **78%** |
|  | **27%** |  |  |
|  |  |  | **80%** |
| **9%** |  |  |  |
|  |  | **57%** |  |
| **9%** |  |  |  |
|  | **Pilot habitations** | **Control habitations** |  |  |

Both sets of focus group discussions revealed the following:

**COMMITTEE FUNCTIONING: Meets regularly, SC and women members attend; at least one decision**

**implemented**

**72%**

**12%**

**MODE OF FUNCTIONING: Consults women, SC & other community representatives to identify**

**problems, choose & implement solutions**

**80%**

**12%**

**NATURE OF DECISION-MAKING: No domination by office bearers; All members able to discuss and**

**decide on most issues**

**76%**

**12%**

**PARTICIPATION BY WOMEN IN THE COMMITTEE:**

**Attends meetings regularly; has influenced at least one issue concerning women**

**56%**

**4%**

**PARTICIPATION BY SC MEMBER IN THE**

**COMMITTEE: Attends meetings regularly; has influenced at least one issue concerningdalits**

**54%**

**4%**

**IMPLEMENTING DECISIONS: VWSC has**

**implemented at least one of its decisions**

**82%**

**12%**

**Control habitations**

**Pilot habitations**

* Women and SC households in a larger proportion of CMG habitations (66-76%) felt that CMG engineers made greater efforts to meet with them separately and discuss water-related issues, than was the case in Control habitations(25-33%).
* Women in more CMG habitations (85%) felt that engineers behaved as part of the community and did not display the normal officious behaviour associated with government officials while visiting rural communities and participating in community meetings. This perception was shared by a significantly lower proportion of control habitations (8%). Also, SC households shared this view in a larger proportion of CMG habitations (45%) than Control habitations(11%).
* Women in a greater proportion of CMG habitations (61%) than Control habitations (8%) felt that CMG engineers made it a point to discuss water supply improvements with their groups, before actually carrying them out. SC households shared this view in a larger proportion of CMG habitations (34%) than Control habitations(22%).

The chi-square test of the statistical significance of all these differences showed that the differences are statistically significant at the 99% confidence level. The fact that engineers working in Control habitations worked with the community are also partly due to the fact that some trained CMG engineers were later deputed to work in these villages or received Change Management training while in charge of these villages.

# COMMUNITY PARTICIPATION IN WATER SUPPLYSERVICES

Focus group discussions were conducted with VWSC members on a range of issues connected with the functioning, representativeness and effectiveness of the VWSC with regard to decision-making (Figure 5).

Figure 5: Functioning, representativeness and effectiveness of VWSC decision- making: Perspective of VWSC members

The main findings on community participation, based on the responses of VWSC members in focus group discussions, are the following:

* VWSCs meet more regularly and take decisions in the case of CMG VPs (72%) than in Control VPs(12%).
* More VWSCs in CMG VPs (80%) consult women and SC representatives and other community to identify problems and solutions concerning water supply than in VPs where Swajaldhara has been implemented(12%).
* Democratic decision-making, without domination by office bearers, takes place in a larger proportion of CMG VPs (76%) than in Control VPs(12%).
* The participation of women and SC representatives in VWSC decision-making is significantly higher in CMG VPs (54-56%) than in Control VPs(4%).

Specific questions were also asked in focus group discussions with women’s groups on the extent to which their representatives were involved in meetings and proceedings of the VWSC, especially tariff setting, and their role in informing their respective groups about these decisions (Figure 6).

Figure 6: Participation of women’s representatives in VWSC decision-making Perception of Women’s Groups

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **DECISION MAKING:****Women representatives attend & inform Water Committee meetings about problems &inform women about meeting decisions.****TARIFF SETTING: Women****representative participated in tariff decision andsome went further & explained the logic to theothers** | **4%** | **8%** | **40%** | **50%** |
|  | **Pilothabitations Control habitations** |  |

The main finding is that even women’s groups felt that their representatives in the VWSC attend meetings and inform them about the proceedings, including tariff setting, in a larger proportion of CMG VPs (40-50%) than in Control VPs (4-8%).

# OPERATION ANDMAINTENANCE

The Focus Group Discussions with women’s groups in the surveyed villages addressed the issues of maintenance and repair status of tap stands and pipelines as well as the extent of their awareness about water tariffs (Figure3.7).

Figure 3.7: Maintenance of repair status of tap stands and pipelines, and awareness about tariffs: Perceptions of Women’s Groups

**MAINTENAN SYSTEM:**

**groupcomplain**

**VP President or and problem**

**resolve**

**73**

**36**

**REPAIRSTATUS:**

**problems by women**

**or through the President or**

**71**

**25**

**AWARENESS:**

**women are aware water**

**50**

**8**

**Control habitations**

**Pilot**

The main findings are the following:

* Women’s groups complain to the VP President of VWSC and resolve local-level problems with tap stands and pipelines in a greater proportion of CMG habitations (79%) than Control habitations(39%).
* Women in a larger proportion of CMG habitations (65%) than Control habitations (21%) carry out local repairs on their own or through the VP President orVWSC.
* Women in more CMG habitations (50%) were aware of water tariffs than in Control habitations(8%).

These differences when tested using a chi-square test were found to be statistically significant at the 99% confidence level. A point that needs to be noted in this context is that, although a relatively high proportion of control habitations report that women’s group complain and resolve tap stand level problems, this is done directly and not through the institution of the VWSC. The lack of effective VWSCs in most Control habitations suggests institutional unsustainability, where effective maintenance and repair of local tap stand problems is left to ‘strong’ women leaders and not a representativeinstitution

mandated to address such issues on behalf of the community. While strong individuals may be quite effective in the short run, there is greater institutional stability in a *system* of redressing water supply problems through theVWSC.

Focus Group Discussions with SC households in surveyed villages also addressed the issues of maintenance of tap stands and pipelines in their area, as well as the extent of their awareness about water tariffs (Figure 8).

Figure 8: Maintenance of repair status of tap stands and pipelines, and awareness about tariffs: Perceptions of SC Households

|  |  |  |  |
| --- | --- | --- | --- |
| **MAINTENANCESYSTEM:****SC householdscomplain****promptlytoVPPresident or VWSC and problemis****resolved 9%****REPAIR STATUS: Most****problems addressed - by SC households****themselves or through the VP President or VWSC** | **18%** |  | **60%****67%** |
|  | **Pilot habitations** | **Control habitations** |  |

The main findings are the following:

* SC households complain to the VP President of VWSC and resolve local-level problems with tap stands and pipelines in a greater proportion of CMG habitations (45%) than Control habitations(22%).
* SC households in more CMG habitations (40%) were aware of water tariffs than in Control habitations(22%).

The differences between CMG and Control habitations were subjected to a chi- square test, and found to be statistically significant at the 95% confidence level. There are two main reasons why these differences between CMG and Control habitations are not as stark as in earlier cases.

* + **Pre-selection bias**: Control habitations were selected on the basis of a call to come forward and participate, and pay the 10% contribution that was required. Most, if not all, habitations that responded were, consequently, not only those that were progressive and strongly motivated, but also those that had strong leaders who undertook to carry the scheme in theirhabitations.
	+ **More SC habitations:** The Swajaldharaprogramme was implemented in only 1 habitation in a VP and a large proportion of these Control habitations are SC habitations, and a large proportion of these VPs had SC Presidents. This ensured not only better communication between SC habitations and the VP, but also ensured that remedial action on water supply problems was taken promptly in thesehabitations.

# CONCLUDING OBSERVATIONS

There are clear, statistically significant differences between pilot villages where engineers with Change Management Training implemented the pilot programme since January 2004, and in control villages where engineers without Change Management Training had been implementing the national Swajaldharaprogramme. While some of the possible reasons behind these differences have been discussed in this section, more detailed analysis is presented in the followingsection.