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EXPERIENCE WITH COMMUNITY PARTICIPATION
IN OPERATION AND MAINTENANCE OF HANDPUMPS
IN THE STATES OF MADHYA PRADESH, TAMIL NADU AND KARANTAKA

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ABBREVIATIONS

A. E.	-	Assistant Engineer
A. E. E.	-	Assistant Executive Engineer
B. D. O.	-	Block Development Office/officer
C. T.	-	Caretaker
D. D. O.	-	Division Development office/Officer
E. O.	-	Extension Officer (Social Welfare)
H. P.	-	Hand pump
MMU	-	Mobile Maintenance Unit
PHED	-	Public Health Engineering Department
R. W. O.	-	Rural Welfare Officer
V. A. O.	-	Village Administrative Officer
ZPED	-	Zila Parishad Education Department

TERMINOLOGY

Panch	-	A Political Chief in the village
Sarpanch	-	Head of Political Chiefs
Pradhan	-	Village Leader
Mahila Mandal	-	Women's organization
Balwadi Teacher	-	One appointed to look after development of rural children
Mahila Panch	-	Female Panch
Gram Sevaks	-	Social Welfare Officers of the village
Dalit Sangharsh Samithis	-	Local Political organization

EXPERIENCE WITH COMMUNITY PARTICIPATION IN OPERATION AND MAINTENANCE OF HANDPUMPS IN THE STATES OF MADHYA PRADESH, TAMIL NADU AND KARNATAKA

The Rural Drinking Water Supply Projects assisted by Danida, have been trying to involve the beneficiaries by training them as caretakers for the maintenance of Hand Pumps (HPs). Studies on this aspect carried out in the States of MP, TN and Karnataka, were based on the assumption that involving the communities in the development projects would significantly improve the project. This is taken as a pre-requisite for the sustenance of the project effects at the grass-root or village level in India. Experiences gained during these three studies may throw light on the significant aspects of community participation in the HP maintenance system.

1. HP MAINTENANCE SYSTEM - A DESCRIPTION

1.1 In MP

The maintenance of HPs in MP is facilitated by the 3-tier system consisting of a HP caretaker working on a voluntary basis at village level, a mechanic and a mobile maintenance unit, representing the three tiers, respectively. The HP caretaker also acts as a 'mediator' between the community and the PHED at block level, reporting breakdowns to PHED. The mechanic, at the level of the block headquarter, is associated with the regular servicing (once in two or three months) of the HP under his jurisdiction. Being a frequent visitor to the village and hence developing links with the CT and the user community, it also makes it incumbent on the mechanic to encourage the community in the up-keep of the HP and its surroundings. Finally, the MMU, comprising 1 block mechanic, 1 driver, 1 mason and 2 helpers, all under the responsibility of the sub-engineer, handles all major repairs of the HP including construction of platform and drains.

1.2 In TN

The HP maintenance system in TN bears close resemblance to its counterpart in MP. The village-level CT working on a voluntary basis, the block level mechanic and a district level MMU constitute the three-tiers, respectively. The CT, selected by the block office staff and imparted training on various aspects of the maintenance system, reports the complaints to the B.D.O. The B.D.O. sends the mechanic to attend to the repair. Major repairs are, however, handled by the MMU.

1.3 In Karnataka

The maintenance system in Karnataka exists on a 2 - tier basis consisting of village-level CT, working on voluntary basis. His/her job includes tightening the bolts, greasing the HP chain and keeping the surroundings clean, and reporting break-downs to the ZPED section officer. The second tier consists of the ZPED MMU attending to all repairs of the HP in addition to a regular check and inspection (once a month, at least).

2. ROLE OF CARETAKER - EXPECTATIONS AND REALITY

2.1 IN MP

2.1.1. Expected role

Since the CT plays a significant role in the HP maintenance system, the following are her/his role expectations:

- a. improving and maintaining the HP site. This is based on the assumption that the CT, in collaboration with the user community will form a HP committee. Matters of keeping the surroundings clean are to be discussed with the committee which takes immediate action on the report lodged to it.
- b. reporting HP breakdown to the PHED using the post card.
- c. proper operation of the HP - the CT should ensure the correct usage of the HP by the user community. This includes using long instead of short strokes, standing behind the HP and letting the handle return slowly to the resting position after strokes.
- d. disposal of waste/excess water. The CT should also ensure proper channelisation of waste water into a garden or field or a pit about 6 - 7 metres away from the HP.
- e. lastly, the CT is expected to keep the HP surroundings clean by making sure that water and slush do not accumulate around it and that excess water is properly channelised. In addition, regular checking of different parts of the HP to ensure proper working is also of significance in the expected role.

2.1.2. Role in reality

The above may be taken as a 'model' of the role of the CT which is quite different to her/his role in reality. At the outset, the concept of a HP committee is non-existent in the rural community under study. This may explain why there is a gap between the CT and the user community, for the latter is not fully aware of the programme. In a few villages, the staff is slow in responding to the community's need regarding the HP. Also, in several cases, the CT is unable to convince the community about the advantages of maintaining the HP. An exception to this, however, was a women CT who, by virtue of her position as a health guide in a hospital managed to draw community's attention to maintaining the HP and its site. The real problem in the job performance comes when the CT while persuading the community for proper usage of the HP, gets slandered or even accused on several occasions.

2.2 In TN

2.2.1. Expected role

The following are the role expectations:

- a. keeping the platform and HP surroundings clean
- b. applying grease to the chain and regular tightening of bolts
- c. educating the community on the importance of the safe drinking water, and hence the necessity of maintaining cleanliness.
- d. reporting repairs to the block office.
- e. finally, interacting with the community to seek participation in the overall maintenance.

2.2.2. Role in reality

In reality, the CT only posts the card for a complaint, and to a certain extent keeps the HP surroundings clean. Beyond this, she does not do much. Also, no practical training is given on handling the tools, or on filling in the log sheets. The CT also fails to seek community support, primarily because the community has no say in selecting the CT. The CT is, thus, not recognized by the community as someone selected to look after the HP for their benefit.

2.3. In Karnataka

2.3.1. Expected role

In Karnataka, the following tasks are expected from the CT:

- a. instructing the user community about the proper handling of the HP, thus preventing break-downs.
- b. tightening the bolts, and greasing its various components.
- c. doing minor repairs.
- d. keeping the surroundings clean and drawing community support in the HP maintenance system.

This should be done by creating general awareness on aspects of health, hygiene and sanitation and their contribution towards a health living.

2.3.2. Role in reality

In practice, the CTs are unable to perform the expected role, except in the case of the Anganwadi teacher who knew her job fairly well. Most of them are not aware of the maintenance aspects of the HP, and do not remember the instructions given at the training camp, or even fail to comprehend them correctly. For most CTs, the job only includes tightening the bolts and posting the complaint card with nothing much to do about maintaining the HP surroundings. Also, the social acceptance of a CT, especially of a women does not figure in the programme.

2.4. Summing up

The above three studies reveal the enormous gap that exists between the expected and the real role of the CT. The expected role converges to the following three major tasks,

- i) maintaining the technical parts of the HP by periodic checking and greasing them (in TN and Karnataka)
- ii) reporting break-downs to the concerned official
- iii) keeping the HP surroundings clean for safe drinking water by educating and creating general awareness on the significance of various aspects of health, hygiene and cleanliness, also by ensuring community support in its maintenance.

The actual performance of the CT, on the contrary, in the three States may be summed up as follows:

- i) the caretaker is unable to obtain community support for an effective job performance. In some cases, this results from a lack of community involvement at the initial stage of selecting the CT, while in others it could be due to various socio-political reasons.
- ii) many CTs do not comprehend or even remember a lot about details on aspects of health and disease imparted during the training sessions.
- iii) CTs (as in some cases in MP and Karnataka) holding official positions within or outside the village are able to command respect and recognition by the community, and hence are better performers of their role than those not in position. In the latter case, they are either accused or face strong retaliation from the community for laying claim over the HP and its up-keep.

3. TRAINING PROGRAMME - A DESCRIPTION

3.1. In MP

Training on the HP maintenance system in MP is imparted on two consecutive days where the CTs are taught the following aspects:

How to report by means of supplied post cards when the HP breaks down, how to maintain the caretakers' log-sheet, channelising excess water to nearby garden or field, how to keep the platform and surroundings clean, preventing breakdowns by avoiding mishandling of the HP, description of India Mark II handpump - its parts and their function, relationship between health, water and disease, practical demonstration on improving the HP site, and finally, how to evoke community participation and motivation.

Training is given with the help of flip charts, slides, demonstrations, and practical involvement of the CTs for assisting an HP site needing repair. The total duration of the camp each day is about eight hours, inclusive of 30-45 minutes devoted to demonstration on a nearby HP site.

3.2. In TN

The training programme in TN lasts only a day which

includes the entire set of activities starting from registration of the CT trainees, introduction by the A.E. or A.E.E. on the role of Danida in water supply and sanitation, demonstration of the HP and its part. This is followed by a discussion by the A.E.E./A.E. on health aspects and water-borne diseases. The feedback of morning session is obtained by "role playing" whereby the chosen trainees are asked to enact a skit of a village officials rounds. The training material includes flip charts to convey the main parts of the HP, the III-tier system and the functions of the CT. Frequently, slides are shown for various health and sanitation issues. The session ends, as in MP, by a distribution of a certificate and the necessary tool kit.

3.3. In Karnataka

Training session in Karnataka lasts two days, normally organised in a school or college premises or mandal office. The camp commences with an introduction of the need for HP maintenance system, the importance of women's participation and a description of the various parts of the HP. The afternoon session commences with a film on identifying the water spot, digging the borewell, maintaining the HP and functioning of the mobile team, etc. This is followed by a slide programme explaining installation of the HP, its maintenance, the role of a CT etc., followed by a video-film on the relation between health, hygiene, sanitation and community role in ensuring safe drinking water.

The second day camp starts with a demonstration of the various tools, then a microscopic observation and demonstration of unclean water containing disease-causing organisms. A slide show on water-borne diseases also follows this. The second day concludes with a practical demonstration of the repair of HP site, as well as distribution of the CT's kit.

4. COMMUNITY PARTICIPATION

4.1. During site-selection

In all the three states, community participation during site selection for installation of HPs is non-existent.

4.2. During selection

The observations of the selection procedure, as experienced in the field are based on a limited sample of cases. (4 cases in MP and 6 cases in TN and Karnataka).

4.2.1. In MP(a) Selection procedure-expectations

The CT for the HP maintenance system is expected to be selected by the user community with the support of the Sarpanch, Panchayat member, Patel or school teacher. This should ensure selecting a person who is voluntarily committed to the responsibility and is not being forced into it. As a result, the user community ought to be consulted before selection. The mechanic, having regular links with the community, is the best person to initiate the selection of the CT. He will approach the Sarpanch or the Panchayat member, or the school teacher and brief him/her about the purpose of his visit and the need for selecting a CT, and will hand over a pamphlet on 'Introduction to 3-tier maintenance system'. Thereafter, the village representative will urge the user community to select a CT willing to work voluntarily to contribute to the maintenance of the HP and its surroundings. In order to ensure the selection of a CT on the above presumptions, certain criteria are to be borne in mind. (Annexure I).

(b) Selection procedure as experienced in field

The selection procedure as observed in reality is not uniform with the Panch or Sarpanch and mechanic as selectors of the CT in one area (Raipur district) and the mechanic and gram sevaks in the other (Chhindwara district). There is no community involvement in the selection of the CT, and observations reveal four major criteria followed for their selection - closeness to the HP, regular user of the HP, willingness to work voluntarily (in some cases), and willing to attend the two-day training camp. The other criteria of reading and writing abilities do not relate to the activities of the CT. The average age of the CT is between 25 and 30 years which seems reasonable if we are looking for a confident and responsible person.

4.2.2. In TN(a) Selection procedure - expectations

The A.E.E. or A.E., after drawing up a schedule for the training programme, contacts the B.D.O. in his division with this schedule. The B.D.O.s then, request the mechanic to prepare a list of all the HPs in his block, with numbers and location, and allot the R.W.O.s the E.O.s (Panchayat) and the mechanic ten to fifteen HPs each to supervise the selection of the CTs in these villages. The staff of the B.D.O. visit the villages allotted to them at least twice before the selection.

During the initial visit, the staff meet the Panchayat President, Balwadi teachers, V.A.O. convenors and users when they discuss the need for selecting a person for the HP maintenance system. They also discuss the criteria for selecting her and the training programme to be held at the B.D.O. for the trainees. Following this, the above officials call a meeting and help the user community select a CT. During the second and final visit, the staff of the B.D.O. ascertain the competence of the CT and, finding her suitable, fill in the standard format (Annexure II). The B.D.O. maintains a file of all the standard formats from which the fitter compiles a list of all the CTs with their particulars, and sends it to the D.D.O. At the D.D.O, the A.E. and the B.D.O.s make arrangements for the training camp. After finalization, the card with the date and venue of the training programme is posted to the CTs for intimation. The criteria followed for selection of the CT have been listed in Annexure III.

(b) Selection Procedure as experienced in field

The D.D.O. requests the B.D.O.s to select the CTs for their block, about two or three months before the date of training. The final date and manual on selection procedure are also sent along with to serve as a guideline.

Community participation in the selection of the CTs is rare with each block having its own way of choosing the person. In certain blocks (Veerapandi, Sankagiri and Tharamangalam), following the instructions from the B.D.O., the block mechanic selects the CTs who have helped him whenever he repaired the HP. Offering baits in the form of being gifted by lunch, tea, tools, bag and so on, is also used as a means of persuading the CT. In Rasipuram, the B.D.O. and the Panchayat Clerk select the CT without consulting the mechanic. Still in other blocks (Kolathur) the R.W.O, the block mechanic and the Panchayat President do the final selection. In Valapadi and Ayodhyapattinam, the block staff do the job of selecting the CT, while in village Udayapatti, villagers needed motivation and persuasion to work voluntarily - normally done by the A.E.. It is evident that no uniform selection procedure is adopted in TN. The criteria for selection also have not been prioritized, with the criterion of motivational aspect lacking.

4.2.3. In Karnataka

(a) Selection Procedure - expectations

After updating lists and map plotting of the HPs in the

Taluk, and finalising the course areas and venue time and place, the final selection of the CT should be made. The training officer and the Social Service Extension officer of the area, in collaboration with local associations, such as Mahila Mandals, Dalit Sangharsh Samithis etc., should visit all HP sites, brief the people about the programme and then select the CT. If, while visiting, a HP is noticed with a defect, it must immediately be rectified to draw the community closer. It is essential that the selection team spends ample time in explaining about the HP maintenance system and the benefits accruing from its up keep.

Various criteria are followed in order to select a person willing to take the responsibility towards maintaining the HP under her/his jurisdiction (Annexure IV).

(b) Selection Procedure as experienced in field

The Mandal Pradhan selects the CT without any prior orientation of the community. The selectors of the CTs appear as givers of material tools etc., and the CTs as users and takers of this material. Only two criteria are followed for selecting the CT - that of a married women and of closeness to the HP site. The time allowed for selection is rather short and leads to an arbitrary mode of selection sans community participation. The selection procedure depends a lot on the conventional political structure of the village. Also, because the community has no say in deciding on the CT, the task is thrust upon the selected person giving her no freedom of flexibility. Lack of motivation and the willingness to volunteer for the task mark the observed field situation.

4.2.4. Summing up - Community Participation as expected and as observed in the field situation

The expected procedures of selection follows a similar pattern in the States of MP, TN and Karnataka with a few variations. Foremost amongst the factors contributing to the success of the HP maintenance system is community participation right from the outset. The village representative or the block staff plays a crucial role in urging the community to get involved in the programme. This should be done on a voluntary basis and not forced upon.

Regarding the criteria for selecting the CT, there is a similarity in the three States, with special emphasis on the expected voluntary nature of the task and the confidence of the people in the selected CT.

The selection procedure in the field situation is not followed uniformly in the three States. The conventional power structures, and the mechanic work differently in different villages in order to select the CTs. The voluntary basis of the task is, however, ignored, and selection forced upon in several cases. Nevertheless, closeness to the HP, and a regular user of it exist as significant criteria for selection. However, community participation is non-existent, both prior to and during the selection process. This may explain lack of motivation amongst the CTs to volunteer for the job. It is either the Panch, or the Sarpanch, the mechanic or the Pradhan who are the deciding factors in matters of selection, who act more as 'givers' of the training material than as agents of conveying the importance of the HP, its maintenance and the need for a CT.

4.2.5. Reflection of community participation from case studies in MP and TN

The success and failure of the HP maintenance system can be gauged by a review of the experiences gained by the CTs in the field. The following case studies strengthen these experiences.

In MP

Case I. Sunaribai, herself one of the panches, and selected by another panch (Tilda block of Raipur district) stands as a fine example of a successful CT. Although her knowledge of the programme is confined to its aims at providing clean water through a HP, and the relationship between unclean water and diseases, she manages the community well enough to maintain the HP and its site.

Case II. Shahzadi Begum (Kharona village in Tilda Block) selected by the panch is another example of a successful CT. Success is seen in terms of the maintenance of HP surroundings and community's response to her job performance. In the capacity of a health guide, she possesses good knowledge of the maintenance aspects of the system. She gains social acceptance, recognition and respect by the community.

Case III. Shivprasad (Khaapa village in Sausar Block Chhindwara district) selected by the mechanic, although willing to maintain the HP, is unable to do so. This is because of the slow action of the PHED in responding to his repeated requests for repair of HPs. Panchshilabai of the same area, also sees the delay in response as affecting her motivation and hence her performance.

In TN

Community participation in selection and maintenance as observed in MP is non-existent.

In village Udayapatti, the villagers needed some sort of encouragement to be able to volunteer to accept the CTs task. Following case studies will highlight the quality of performance of the CT in the field.

Case I. Chellamal (in Valapadi Block, Salem District) has had problems protecting the HP area from the user community. The CT had once taken a women user to task for defying the pump area under the jurisdiction of this CT. Personal differences also came to the fore when the women summoned her brother, and a watchman both of whom slandered the CT. The performance of the CT, in this case, was influenced not only by lack of social acceptance but also by the then existent village feud. The CT's position in the community thus, was seen more as a threat to the opposing group than as a person aiding in a better living.

Case II. Santhi (Rasipuram Mamakkal division in Muthukalipathi) is a daily wager, selected by the R.W.O. and stays about half a kilometre away from the HP site. Her inefficiency in fulfilling her job is because she lacks motivation and fails to get community support.

In all the above cases, community consent was not taken into account.

5. SUMMING UP

Regarding the use of the HP by the user community the CT, in most cases is unable to successfully convince the community about the advantages of maintaining the system. Balwadi teachers or a mahila panch, or a health guide may prove successful as CTs. Since these caretakers will be in a better position to command respect, the chances of disputes arising out of the caretakers' role are likely to be reduced. Social acceptance may gradually lead to recognition and also in gaining confidence of the people. In addition, lack of motivation of the community owing primarily to lack of orientation may be helped by consulting the people during the selection process. Considering the limited input in selecting the CT, we should not have very high expectations of drawing community support on a large scale.

The present selection procedure as practised in the three states which is non-uniform, and arbitrary, if followed uniformly, and with involvement of the community may yield better results. When not followed uniformly, this is often due to limited time available, work pressure, and sometimes lack of interest.

Although one may try to make changes at this stage of the programme, there would still be certain limitations to community participation. These limitations may follow directly from the social structure of the area under study. The situation is made egregious by the prevalence of caste system in the rural areas. The poor, or those belonging to inferior castes may have little or no say in decision making procedures. The differential economy of the higher castes and lack of contact with the rest of the community acts as a formidable barrier to these developments. Deep-rooted as it is, we cannot but implement our plans based on the community, as far as possible.

State of Madhya Pradesh

Criteria for selecting a CT

- a. she/he should reside close to the HP site.
- b. she/he should be a user of the HP
- c. she/he must enjoy the respect and confidence of the user community as well as be able to seek its support
- d. she/he, preferably, should be able to read and write.
- e. her/his minimum age should be 18 years.
- f. she/he should be willing to work voluntarily.
- g. she/he should be willing to attend the two-day training camp.

Women, being the prime users of the HP, will be better aware of the general condition of the HP and its surroundings. They should, thus, be nominated and encouraged to work as CTs.

Application form for functioning as Caretaker of the handpump in the block-----
and for participating in the training programme: A sample —

-----ஊராட்சி ஒன்றிய எல்லைக்குட்பட்ட ஊராட்சிகளில் அமைக்கப் பட்டுள்ள கைப்பம்புகளுக்கு பராமரிப்பாளராக செயல்படவும், அதற்கான பராமரிப்பு பயிற்சியில் கலந்து கொள்ளவும் அனுப்பப்படும் விண்ணப்ப நகல்

(1) Name of the Block.

(1) ஊராட்சியின் பெயர்.

(2) Name of the place where the handpump is situated.

(2) கைப்பம்பு அமைந்துள்ள இடத்தின் பெயர்.

(3) Hand pump No:

(3) கைப்பம்பின் அடையாள எண்.

(4) Name of the Caretaker and address.

(4) பராமரிப்பு செய்ய பொறுப்பேற்றுள்ளவரின் பெயர், விலாசம்.

(5) Age.

(5) வயது.

(6) Educational Qualification.

(6) கல்வித் தகுதி.

(7) Husband's Name:

(7) கணவர் பெயர் மற்றும் விவரம்.

(8) Distance (approx) between the hand pump and the caretaker's residence.

(8) பராமரிப்பாளர் குடியுள்ள இடத்திற்கும் கைப்பம்பு அமைந்துள்ள இடத்திற்குள் உள்ள உத்தேச தூரம்.

(9) Any other details.

(9) இதற குறிப்புகள்.

I do hereby affirm that I am willing to look after the hand pump without expecting any return and that I agree to attend the one-day training programme.

மேலே குறிப்பிட்டுள்ள வரிசை எண் 3ல் கண்டுள்ள கைப்பம்பு பராமரிப்பு பணியினை நான் எந்தவித ஆதாயத்தையும் எதிர்பாராமல் தொண்டுள்ளத்துடன் கவனித்து வருவேன் என்றும் இதற்காக அளிக்கப் பட உள்ள ஒரு நாளை பயிற்சியில் கலந்து கொள்ளவும் முழுமனத்துடன் சம்மதிக்கிறேன்.

I recommend the appointment of the above candidate as Caretaker.

மேற்படி நபரை கைப்பம்பு பராமரிப்பதற்காக நியமனம் செய்ய பரிந்துரை செய்கிறேன்.

Signature of the Caretaker
பராமரிப்பாளரின் கையொப்பம்.

Signature of the
Block Staff.

State of Tamil Nadu

Criteria for selecting a CT

- a. must be a woman from the user community
- b. must be inclined to serve the community voluntarily
- c. must enjoy the respect and confidence of the user community
- d. should be able to read and write
- e. should be willing to attend the two-day training camp
- f. must reside in the vicinity of the HP

State of Karnataka

Criteria for selecting a CT

- a. must be a regular user of the HP
- b. must reside in close vicinity
- c. must enjoy respect and confidence in society
- d. women, being the prime users should be actively encouraged.
- e. should be married and above 30 years of age
- f. must have own means of family support
- g. should be semi-literate

COMMUNITY PARTICIPATION - ITS INDICATORS

LEVEL	FACTORS INFLUENCING COMMUNITY PARTICIPATION	INDICATORS
I- Level of Installation	A. Procedures for site-selection	a. Community's awareness of instalation (site selection)
II-Level of selection of caretakers	A. pre-selection orientation of community	a. people's awareness the programme b. knowledge of the purpose of selecting caretakers. c. community's views on health, water and disease and need for handpump maintenance
	B. selection procedure	a. type of person selected b. caretaker's position vis-a-vis rest of the community, his economic and social background
III-Level of training handpump caretakers	A. orientation of community prior to training	a. people's perception of training programme b. their views and expectations after training
	B. the training programme - its communicative value	a. trainees' response to training session b. extent of involvement in the programme
	C. form and content of training material	a. orientation toward rural based life b. gender bias involved c. means of communication (tools) d. practical demonstration

d. Extent of dissemination
of knowledge of handpump

a. people's views
before and after
training

b. ability of the
caretaker to
communicate with the
user community