



Sustainability through community choice

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IN INDIA NEW initiatives are being introduced to bring about Reform of the Rural Water Sector by changing from Supply Driven to Demand led approaches through community participation in all stages of scheme development. The programme of Sector Reform is being implemented in 63 Pilot Districts across India. This paper describes practical field experience of the Demand Led approach in practice in Sopirala village (population 2500) of Prakasam District in Andhra Pradesh State, which is one of the pilot districts selected for the Sector Reform programme, during February 2002.

Sector reform

The Sector Reform programme requires communities to be empowered and take part in analysis and design of water supply and sanitation systems that satisfy their felt needs. Their final choice of system is based first on a sustainable source, second on satisfying the need of all sections of the community and thirdly on matching with their ability to contribute to the capital cost and take full responsibility for future operating, maintenance and renewal costs of the scheme.

Participatory process

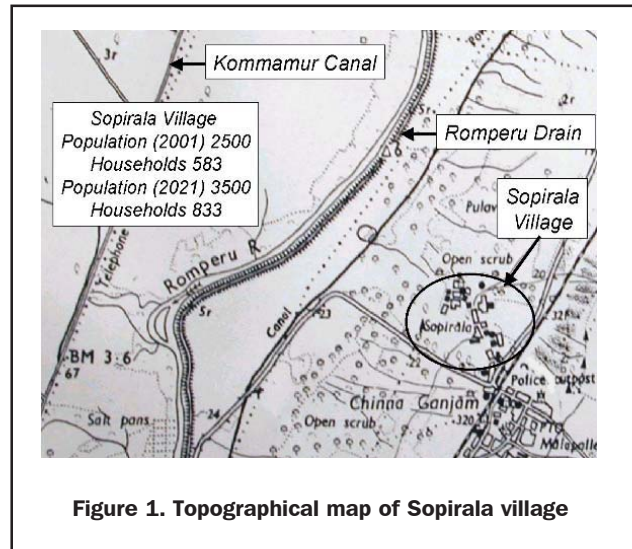
The traditional supply driven approach where water supply agencies provided water to nationally established norms has gone through a paradigm shift with the introduction of Sector Reform. Complete participation by communities in all stages of the design and implementation process is now required. Choice of a system by a community pre-supposes that the system design is sustainable. Sustainability in the context of water supply and sanitation covers social, financial, and environmental as well as technical sustainability.

Training

To ensure the facilitating role of Government and Non-government organisations adequately supports communities in achieving sustainability requires intensive awareness creation and capacity building at all levels. The field experience highlighted in this paper comes from a training programme for Engineers, Scientists, staff of NGOs and district officers, designed to create better understanding of the paradigm shift in approach.

Case Study of Sopirala village

Sopirala village (see topographic map) is situated in eastern Andhra Pradesh, eight kilometers from the coast and on the



alluvial belt. It has occasionally experienced cyclone damage and is in an area producing salt, fish from aquaculture and has intensive paddy farming (Village data in Table 1).

Group dynamics

Two financially strong politicians of opposing views have great influence over village development. One favoured the existing Central Ground Water Board exploratory bore well being developed as a ground water source and the other favoured a scheme based on the Krishna Canal

Table 1. Village data 2002

Population	2500
Total number of houses	583 (Scheduled Tribe 234)
Cattle population	882
Total number of Ring wells	203 (23 not working). Panchayat wells 41
Number of public drinking water wells	3
Number of Hand pumps	39
Number of public drinking water Hand Pumps	1
Average rainfall	950 mm

Table 2. Options for water supply

Option	Capital cost of scheme (in Lakh Rupees)	Capital Cost contribution per household (Rs.)	Operation, maintenance and renewal cost per household per month (Rs.)
Bore, direct pump, Public taps	24.2	410	19
Bore, direct pump, GLSRs	17.2	287	19
Bore, pump, OHSR, Public taps	20	330	19
Krishna water through OHSR/public taps	110	1850	55
Bore, direct pump, mini tanks	28.4	474	19
Collector wells (5 in total)	17.4	290	5
Collector well, pump, GLSR (5 in total)	25	420	35

located 5 kilometers from the village. Villagers blindly followed these influences based on their political leanings.

Many of the women in the village felt that their voice would not be heard because of the culture and political influences. Women, however, individually voiced strong opinions about the need for better quality water.

The ST colony, on the fringe of the main village had little influence and was kept satisfied by the provision of the single hand pump.

Data analysis

The trainees collected information in the village by using different methods of PRA such as Social and Resource Mapping, Transect Walk, Focus Group Discussions, Daily Schedule, Seasonal Mapping and Time Line.

Topographical and hydro geological maps were used to interpret water resources and drainage and water quality analysis was carried out on all current and potential sources. The group discussions with Anganwadi (Inte-

grated Child and Women's Programme for under fives) workers and ST women were particularly useful.

Key problems identified in the village were:

- High TDS levels detected in shallow ground water within the main village.
- All sources showing some form of chemical or bacteriological contamination.
- Growth in Aquaculture farming and associated ground water pollution.
- Surface dumping of cattle waste and poor drainage.
- Alluvial sand geology.
- Poor hygiene practices particularly in the ST area.
- Over-riding political influences.
- Availability of water in summer is reduced.
- Burden is placed on women for collecting drinking water from distance.
- Women's voice is not heard and women are not used to attending meetings.

Options

Options were prepared with supply coming from different water sources and giving different levels of service to match the requirement of the village based on the information and preferences given by the villagers.

Special effort was taken to calculate projected population based on the particular demographic characteristics of the village and also considering the physical areas for village growth.

Detailed options were prepared with full capital and O&M cost projection (see Table 2) along with simple layout maps for the open discussion with the community in small groups followed by full Gramsabha (Public meeting). Each option was prepared with details of risk and responsibility.



Figure 2. Collecting water



Figure 2. Collecting water

Community choice

To motivate the community to attend the full village meeting small group discussions were held in each lane of the village bringing together groups of individual householders. This method also created awareness of the need to form a representative “Habitation Group” with a single representative from every household in the village, a minimum of 50% being women. From this group a Habitation Water and Sanitation Committee will be formed in the future to manage the chosen system.

In the full village meeting care was taken to ensure that people were placed on a common level to stop domination and encourage participation by nominally weaker groups. Women in particular were encouraged to come to the front and were given the opportunity to speak. Any one wishing to talk was allowed to do so but restricted to discussion about the options and kept away from political matters.

Particularly relevant questions from women related to the requirement for individual house connections. It was agreed by the community that the demand for house connections may impact on the scheme sustainability and it was agreed that having a guaranteed minimum quantity for all households was a priority, only then might individual house connections be a possibility.

Whereas politicians in the village focus on two opposing solutions seven options were put in front of the Gramsabha with associated costs and responsibilities. The Krishna canal scheme was immediately seen to be way beyond the paying capacity of the community and many better options were available. It also became clear to the community that there are responsibilities attached to every option in order to achieve sustainability.

As a training exercise the time given to analysis, participation and decision-making was far less than would be given in practice. The process of empowerment is vital for real sustainability and the trainees learnt how much care and attention is necessary before a community is ready to make the final choice.

Lesson learnt

- All views should be accommodated.
- Sources should be properly tested to find sustainable yields.
- Triangulation of information is essential.
- All options should be properly analyzed.
- Variation on options suggested by community should be considered.
- Facilitation by NGOs and GOs should be unbiased.
- Choice comes from the community not from individuals.

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