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PEOPLE-CENTRED APPROACHES TO WATER AND ENVIRONMENTAL SANITATION

Case Study on Community Involvement in Rural Water Supply Sri Lanka

H.K.S. Shanthasiri and R. Wijesooriya, Sri Lanka

Millennium Development goals create new vision to achieve current development issues in developing countries. In Sri Lanka there are various constraints to providing safe water and sanitation to the entire population. Sustainability of rural water supply systems is an acute problem mainly due to the adopted supply driven approach. To change this, the Ministry of Urban Development and Water Supply Sri Lanka, together with Asian Development Bank was given responsibility by the National Water Supply & Drainage Board to formulate a project focusing on sustainability. As a result a Project was designed based on a people centred and demand driven approach. Objectives of this approach are : to induce a sense of owner-ship; to reduce capital and O&M costs through community participation; and to achieve sustainability. ADB Assisted Third Water Supply and Sanitation (Sector) Project was implemented with a view of achieving the above objectives This paper describes the positive and negative impacts of community involvement in this Project.

Introduction

Based on millennium development goals, one of the major challenges facing Sri Lanka is providing safe and adequate drinking water to all inhabitants. This challenge is due to constraints of population growth, limitation of financial and other resources and problems related to the sustainability. Hence the government of Sri Lanka recently, gave priority to improving both rural water supply facilities as well as urban water supply facilities.

To face these challenges government of Sri Lanka has implemented a number of rural water supply projects with the government and non-governmental organizations. As a result the Asian Development Bank Assisted Third Water Supply and Sanitation (Sector) Project (TWSSP) is being implemented in six districts in Sri Lanka, using a people centred development approach. The target is to cover the One Million people by the year 2004.

According to the past experiences in Sri Lanka, the major problems faced by rural water supply projects is their long-term sustainability. In the past the state organizations have adopted a supply-driven approach to service delivery, rarely taking beneficiary preferences into account. As a result the rural water fails to give customers satisfaction and recovers no capital or O&M cost. Because of poor construction and poor maintenance water supply systems become out of order in a very short time.

A change from this demand driven approach was introduced in the ADB Assisted 3rd Water Supply & Sanitation (Sector) Project. During the implementation process user communities were involved and they actively contributed to planning, design, construction and the consolidation of the rural water systems.

This paper describes the positive and negative aspects as well as direct and indirect impacts of the community involvement in various activities in different stages in the Asian Development Bank (ADB) Assisted Third Water Supply & Sanitation Sector Project (TWSSP), Kegalle District, Sri Lanka.

Project Description And Rules

The ADB Assisted TWSSP started at the end of 1999 and continued up to June 2004. The National Water Supply and Drainage Board (NWSDB), which is responsible for providing water and sanitation facilities mainly in urban areas, undertook to carry out the above project, representing the Sri Lankan Government together with the ADB. As it was the first experience of implementing such a programme in rural areas, NWSDB formulated a project design with the help of COWI consultants. The project philosophy is sustainability through a demand-driven approach. To implement the project, a new institutional structure was created, a partnership between the Project Management Unit (PMU), Project Implementation Unit (PIU), Divisional Implementation Unit (DIU), Partner Organizations (POs i.e. NGOs and Local Authorities), and village level Community Based Organizations (CBOs).

The project consists of a capacity building programme for sector partners, which is funded by the Norway Agency for Reconstruction & Development (NORAD).

The Kegalle District project covers 152 Grama Niladhari Divisions (GNDs- *Smallest Administrative Boundary in Sri Lanka. Population varies from 250 families to 550 families*), 4 Small towns and one Urban Scheme, which provides Water Supply, Sanitation (latrines) environmental protection, hygiene and sanitation awareness and intuitional

development facilities for approximately 150,000 people in two batches (One batch covers 76 GNDs).

The project cycle for each batch took 18 months and consisted of main phases such as, social mobilization, planning and design, construction and consolidation. A selection criteria was used to select the Grama Niladhari Divisions (GNDs) because of financial constraints and to ensure community demand. 152 GNDs were selected as the Project area out of 573 GNDs.

Partner Organizations (PO) were appointed from the beginning of the project cycle to facilitate communities. The project will assist the communities in selecting different technology options such as piped water supply systems with adequate treatment, deep/shallow wells with hand pumps, protected springs/streams, protected dug wells, protected rainwater catchments systems. The community is provided with sufficient information to make informed decisions of the technology and level of service according to their affordability and willingness.

Investment & Contribution

Project Contribution

To the extent possible, the project provided sufficient financial support to ensure all citizens have access to minimum water supply standards. The level of support given was based on an upper ceiling per household that is sufficient to ensure basic water access. In the interests of equity and economic efficiency, the subsidy ceiling was kept as low and as uniform as possible. Variations were given from time to time to allow for inflation and the need for specialized technology or other unusual problems. In the case of small towns systems, provision of higher subsidies was necessary because of the higher capital costs of treated piped systems.

User Contribution

A capital contribution is necessary from the users both to finance the scheme and to instigate a feeling of ownership for the facilities. The contribution from each community is expected to amount to a minimum of 20% of the cost of the scheme. This contribution may be provided in the form of unskilled labour, locally available material and/or cash. This contribution is considered as the minimum requirement to qualify for the matching Project contribution. A higher contribution was used as a factor in allocating the scheme higher priority.

Social Mobilization Phase

Social Intermediation

POs serve as social intermediaries between the Project and the communities. They play a critical role, directly interfacing with the communities and disseminating Project Policies and giving feed back to the Project. While building PO's Capacity, the PIU and DIU closely monitor their performance. Specific outputs required of each PO and payment to POs are linked to outputs. The POs came into the project in the beginning of the project cycle. Selection processes done using an evaluated list provided by PIU which invite them to give

their proposals for a sample village. The POs had to fill it out to indicate how they would process a similar type of project. The marking system was developed to evaluate proposals based on their methodology, capacity, staff qualifications and previous experience in similar projects.

Planning Stage

Village Participatory Planning (VPP)

The VPP process starts with a core group meeting to explain to the Technical Assistant (TA) of the PO about the result of the Village Self Assessment (VSA). The Community Facilitator (CF) of the PO facilitates the meeting and helps the community to develop a work plan as to how they will conduct VPP most importantly the CF and TA will assist the villagers to work out how they will be kept informed during the Village Participatory Planning (VPP) process and who will attend meetings to make decisions.

At this stage the beneficiary community is actively involved in:

- Water need identification;
- Perennial water source identification;
- Taking water flow measurements;
- Finalizing and prepare the water supply plan for the community;
- Identifying marginalized groups; and
- Land requirement.

Qualifying Fee

During the community mobilization phase the community should confirm the willingness to participate by making a payment of the qualifying fee amounting to one hundred and fifty rupees (USD 1.5) in cash per household before the start of the VPP for the water supply and sanitation facilities.

The qualifying fee is one of the main milestones in the project cycle, which confirms community participation.

Cash Contribution For Capital Works

Before implementing the chosen option the community should pay in cash a minimum of 10% of the projects estimated cost. A further 10% should then be contributed in unskilled labour during the construction stage. Pipes and

Table 1. Qualifying Fees- Kegalle District

Batch	Water US \$	Sanitation US \$
1	9287	2775
2	11858	3250
Total	21145	6025

Table 2. Community Cash Contribution for Capital Works – Kegalle District

Batch	Required (US \$)	Collected (US \$)	%
1	51356	61451	120
2	10250	12340	121

fittings are transported to the site after collecting 80% of the required cash, which helps to motivate the rest to pay their contribution. Some people converted their unskilled labour amount into cash and pay in advance.

Note:

The community's contribution for common facilities is different to that required from individual facilities (eg. Recipients of private protected dug wells and private rainwater-harvesting facilities should contribute around 50% of the capital cost by labour, material and cash. Whereas for community facilities cash contribution is around 10%).

Water Source Clearance

Water source clearance has to be obtained from the current users before implementing the water Project. Public hearings were conducted in 3 villages so farmers could come to an agreement about water sharing. This is a huge challenge faced by the community as well as the Project. In Sri Lanka, there is no defined legal framework relating to water sharing.

Construction Phase Community Action Plan (CAP)

Before commencing construction, CBOs need to prepare a Community Action Plan (CAP) and should come to an agreement with the Project. Construction works of intake structures will come first in the CAP and are normally paid for by the community cash collection for construction works. This helps to solve any objections arising from water sharing before implementation of other works.

Labour Contribution

The CBOs are the responsible authorities to find skilled and un-skilled labour for construction. Small groups formed CBOs and group leaders were appointed road or area wise. The cost of skilled labour requirement was included in the cost estimate.

Major un-skilled labour involvement occurred in pipe laying and back filling. In Kegalle district 396 km of pipes were laid in Batch 1 and 600 km in Batch 2.

Skilled Labour

Finding skilled labour for civil construction works such as constructions of intakes, storage tanks, brake pressure tanks, valve chambers, pump houses, etc. was done by the CBO as a community contractor. On-the-job training (OJT) was conducted for the village level masons, plumbers and carpenters.

Managing Community Contracts and Procurement

There are two reasons the community is given control over procurement of construction materials as well as contracting for specialized works such as pressure testing, rock blasting and building overhead tanks. First, this improved material procurement and quality of construction. Second, making fund management transparent eliminates the allegations of

corruption typically associated with centralized procurement contracting. CBOs in Kegalle District managed 275 community contracts in Batch 1 amounting 1.5 million USD.

Quality assurance is mainly carried out by the CBOs with the assistance and guidance of the TA or the PO. During the construction period the CBO is not only the owner but also the contractor of their own project. More attention was given to make all CBO members aware up of the importance of quality. Hence this task became a collective effort.

Throughout the project cycle the CBO needs to maintain a sound financial management system. Every six months the CBO treasurer should obtain a financial audit report from an independent accountant and the statement should be forwarded to the CBO members. This is to ensure transparency of all financial activities.

Table 3. Technology Options Chosen

Technology Option	Batch 1	Batch 2
Gravity	121	204
Pumping	10	13
School WSS	8	10
Protected Dug Wells	1603	1133
Tube wells with H/P	05	05
Common Wells	122	82
Rainwater harvesting	758	1603
Latrines	5314	6500

Project Outcomes

Community Dropouts

2 GNDs, 5 pumping and 2 gravity schemes had to drop out of the project during implementation for variety of reasons. To be eligible for implementation, each community had to meet specific conditions (such as qualifying fees, source/land clearance, capital cost contribution, and agreeing on design). Dropping the villages that did not meet the conditions sent a clear signal to other villages that they must adhere to the Project rules.

Consolidation phase

On completion of the construction phase, the project cycle shifted to the consolidation phase when the CBOs are ready to take over operation and maintenance (O&M) responsibilities of the water supply schemes. The project intends to further support and strengthen the CBOs to build capabilities and capacities to take up O&M responsibilities. The CBOs accomplish the following activities during the consolidation phase, with the help of POs and the project.

Deciding scheme specific water tariff

All rural water supply systems managed by CBOs have their own tariff structure, which is prepared by the CBOs based on expected expenditure to maintain and rehabilitate water supply scheme. Expected expenditure was calculated considering, staff salaries, chemical costs, office rent, rehabilitation fund contribution etc.

Water quality maintenance

During the O&M stage CBOs are responsible for supply of portable drinking water to their consumers. Hence, they do day-to-day quality maintenance by adding chlorine to the water and ensuring proper functioning of water filters. In addition periodical water quality testing is done by the CBOs. They have laboratory facilities for water testing (at cost) that are based at the provincial level of the NWSDB. In addition public health inspectors (PHI) of the health department (HD) do periodical water quality testing specially during epidemics.

Conclusion**Advantages:**

- It was observed that the involvement of community from the planning to the consolidation stage of the RWSS built up a strong sense of ownership of the facilities.
- Participatory process helps to empower the beneficiary community for better community managed development projects.
- Beneficiary communities had an opportunity to participate in the decision making process from the bottom - top approach.
- It could be observed that, reduction of overheads during implementation and the long term operation and maintenance cost were reduced because of the adoption of appropriate and cost cutting strategies and scheme specific tariff systems.
- Specially, when implementing small scale RWSS, community involvement helps to overcome some challenges quickly rather than when using the involvement of government or other agencies etc. (Ex. source clearance approval for pipe laying etc.)
- Demand responsive approach helps the maximum utilization of project resources and is on a first come first served basis.
- Beneficiary community is highly concern about non-revenue water and tries to reduce it.
- Establishment and development of the funds for rehabilitation and further improvements indicate the self-sufficiency of the CBOs and also it helps to avoid a dependency mentality of beneficiaries. At the necessary times a well-organized beneficiary community has the authority for decision-making without barriers (eg. Revision of the water tariff).
- The legal needs for water sharing is understood.

Disadvantages:

- It was observed that, community involvement in the project process is a time-consuming activity comparing to the directly implemented projects.
- During construction a few beneficiaries sometimes do not give their labour contribution. Then others have to give more labour days to complete the project.
- It is difficult to maintain water quality because of the previous practice of using non-chlorinated water. (It is difficult to change habitual minds of the beneficiaries.)

- Reluctance to install water meters due to their high cost.
- Even though CBOs are legally empowered other institutions are reluctant to accept its powers.

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Contact addresses

Author 1 - H.K. Sunil Shanthasiri, Senior Sociologist, National Water Supply & Drainage Board, Sri Lanka, ADB Assisted Third Water Supply & Sanitation, (Sector) Project, 19 Courts Road Kegalle, Sri Lanka.

Author 2 - Rohan Wijesooriya, District Manager, ADB Assisted Third Water Supply & Sanitation, (Sector) Project, 19 Courts Road Kegalle, Sri Lanka.
