

Community participation in small city water supply schemes in Sri Lanka

A. Dissanayake, S. Senaratne, Sri Lanka

Community participation is a new approach adopted to address many fundamental issues prevailing in implementation and O&M in small city water supplies. Lack of funds to improve the WS systems, high percentage of non-revenue water resulted in imbalance between expenditure and revenue, schemes expansions without proper technical assessment, water rights and competition in water use, consumer unawareness towards the safety of WS schemes and water sources were resulted to unsatisfactory performance in technical, financial and management of the majority of small city WS systems. Mobilizing of communities in small city WS is not easy due to its magnitude and heterogeneous society. This is more difficult in schemes where augmentation and expansion are taking place, as commitments are completely different between existing and new consumers. However, with all these constraints, pilot level Kegalle small city scheme in Sri Lanka has made remarkable achievements in solving these issues and emphasized the adaptability of community participation approaches in small city WS schemes.

Introduction

Community participation in small city water supply programme is a new approach. It is a fact that many of the small city water supplies currently under operations in many parts of the world have been implemented on top down or supply driven approach aiming the welfare of people and often did not concern about the economic viability of the systems. Majority of these schemes are managed by the Central or Provincial Government or Local Authorities. Usually, neither recovery of capital cost nor total recurrent costs are made. Hence these water supply systems are not being managed to meet the aspirations of people and as a result many water supply systems in small cities fall into dilapidated condition technically, financially and in terms of management.

The main reasons for such situations are: (i) lack of funds to improve the WS systems (ii) high percentage of non-revenue water and lack of systems to address the NRW issue resulted in imbalance between expenditure and revenue (iii) expansion of WS schemes due to political pressure without proper technical assessment on their capacities (iv) water rights and competition in using water sources and (v) lack of understanding of the community on their responsibilities towards the safety of WS schemes and water sources.

This situation is common to a majority of small city WS schemes in Sri Lanka. With the lessons learnt, drastic changes have been introduced in the approach. These changes were adopted in the ADB assisted Kegalle small city WS project on pilot basis.

Why community participation is required in small city water supplies

Prevailing issues described above in small city schemes influenced planners to adopt some effective and successfully practiced elements in RWS implementation. Importance of community participation from the inception of project implementation was demonstrated very successfully in rural WS and thousand examples of successful stories can now be seen all over the world. Consumer participation in decision-making, in sharing the capital investment and in system operations was promoted and hence, such WS systems are no longer a burden to the society.

The basis for new approach adopted in small city water supplies was formulated with the scaled up rural water supply models to suit the particular conditions. Some of the key areas in small city WS schemes implementation, which requires active community participation, are described below:

Create a sense of ownership through community consultation

Community Consultation is one of the important aspects in promoting community participation and in enhancing the sense of ownership among the consumers in a small city WS schemes. With the proper perception of limitation involved in community consultation in small city WS due to its complexity, communities could be consulted regarding their opinion on aspects such as scheme implementation, it's need, consumer affordability and willingness to pay for improved water supply.

Promotion of unskilled labour & reduction of construction cost

The potential consumers could be mobilized to provide voluntary unskilled labour for the laying and backfilling of pipes less than of diameter 90mm within their communities and to provide skilled labour for the construction activities such as valve chambers. Such contributions will reduce the construction cost of the schemes and also create a sense of ownership of the scheme and subsequently act as partners of the schemes rather than service receivers.

Inclusion of low income groups

General practice in city water supply was to select the most developed areas of the city to provide facilities while excluding poor and low-income groups to meet the high demand for piped water. Some poor families were left out due to their inability to find cash to pay connection fees or unbearable cost of the plumbing involved in their housing units. It is necessary to introduce an appropriate mechanism for poor people to participate and offer their unskilled labour and ensure their inclusion into project benefits. This should be seriously discussed during the community consultative sessions to obtain community views for the implementation of WS scheme.

Mitigation of water rights related social conflicts

Conflicts can be expected among different end users for water rights and subsequent acts of sabotage by certain elements (political sponsored conflicts or actions of social extremists). These conflicts on water sharing may lead to disrupt the water supply schemes including damages to components.

It is important to make consumers of small city water supplies aware how other users of water sources sacrifice their opportunities for the provision of drinking water for them. Wilful agreement has to be taken from the small city community to assist the affected population (farmers) who shares the water. Such assistance would be compensation arrangement in the event of low crop or crop losses due to excessive water extractions and training arrangements for farmers to change land use practices, which earn more income with less water.

Reduction of non revenue water

The one of the main constraints in O&M of the small city water supply schemes is high percentage of non-revenue water, which is around 40% in majority of schemes. Leakages, illegal connections and, non-reading of meters were the main reasons for this situation. In addition, provision of water supply facilities at low cost for the people living in absolute poverty through the installation of common taps also resulted to high NRW. Community participation and effective mechanisms at community level are mandatory to reach the optimum level of revenue collection for the production of water. Awareness for all consumers especially low-income groups on the value of potable water, production cost of piped water and individual consumer obligation

towards the society by way of saving should be effectively carried out.

Promotion of water savings

A globally accepted norm of per capita consumption of water is around 120 litres per day or even less. However, in Sri Lanka per capita consumption of water (domestic) is between 140-160 litres per day, which is considerably high. In addition to the traditional approaches such as elevation of tariff to control the water use at domestic level, mass-scale awareness programmes are needed to promote water savings and reduce excessive use. Desired results could be achieved through an effective programme including training to educate consumers, especially the second generation, i.e., school children in this regard. Introduction of water saving devices to the consumers along with awareness can reduce the domestic water consumption.

Institutional arrangements to safeguard consumer rights

Consumers of small city WS schemes have a right to receive water to meet the total requirement for domestic activities such as drinking, sanitation, washing, bathing and home gardening. However, in reality, due to unplanned expansions and excessive number of domestic connections (usually due to political pressure) has made adverse impact on schemes. The original consumers are forced to relinquish their service for the benefit of new consumers and some instances complete disruption of water supply to the original consumers in high elevations are reported due to loss of pressure. Over pumping of water affect the scheme components and the overall maintenance of the schemes, negative effect for the water sources, increase of expenditure in operation (overtime for pump operates, care takers, OICs and cost of chemicals, electricity supply etc.) are some of these adverse effects.

Establishment of precondition for community consultation prior to any expansion in small city WS schemes is a new culture to be grown without much difficulty and such system will benefit both the O&M authority of the scheme and consumers. This will no doubt safeguard the consumer rights to receive high quality water and adequate quantities around the clock. Consumers could be organized to be "Pressure Groups" to resist the short-sighted political decisions, which cannot be ignored by O&M Authority of schemes.

Promote consumer vigilance on water schemes

Promotion of user vigilance for safety of common services and assets is a new trend. It is argued that this can only be achieved through intensive user awareness on their a social obligation and personal responsibility towards the society and creation of user ownership on such services.

There is a high competition between water for agriculture and drinking. Lack of mechanism to assist people those who have sacrificed their livelihood for the benefits of city communities is an issue and this could lead to damaging of the scheme components. Pollution of water sources both surface

and ground water and availability of water in these sources play a greater role in the continuity of services and prevention of such situation is more complex. The situation has become worsen due to unwillingness of Planners/Implementers to invest towards water resource development.

All consumers of small city WS scheme should be motivated and their wilfully agreement should be obtained to pay an additional amount on top of their monthly tariff to form a fund to assist affected people and for water source development along with changing land use practices of the existing water source users. Such actions will create positive attitude from existing users of water sources toward the water supply schemes and ensure the safety of the scheme and water source.

Use consumer groups for tariff collection

Collection of tariff in small city schemes is time consuming and expensive exercise and tendency at present is to outsource the tariff collection, which can make it efficient. Several options are available, one is to contract out Community Based Organisations formed at zonal level for tariff collection, which is no doubt low cost and reliable. Such arrangements will also ensure the continuity of the Zonal level CBOs as effective community institutions.

Community participation approach in small city WS scheme in Sri Lanka

Unlike rural water supply schemes, mobilising communities in small city WS is not easy due to the magnitude of the schemes and heterogeneous society in small cities. This is more difficult in schemes where augmentation and improvements (expansions) are taking place, as commitments are completely different between existing and new consumers. Reluctance to contribute unskilled labour could be expected from the existing consumers as they are already enjoying the water supply facilities even though issues or dissatisfaction of current services may exist.

However, with all these constraints, first time in Sri Lanka community participation approach is being practiced during the augmentation of Kegalle WS scheme. The total cost of the scheme is 440 million and it is expected to provide water for 73,993 populations who are living in 17,600 housing units. Nearly 29% of people in the commanding area of the scheme are poor and majority of them do not have water supply facilities.

Percentage of NRW in the Kegalle WS scheme is 42%, which is much higher, and monthly total revenue is around Rs.03 million and the total monthly expenditure is around Rs 4.2 million. The cost of O&M is borne by the NWSDB and the Kegalle Municipal Council. The scheme was operated neither financially viable nor did it adequately provide satisfactory service to consumers. It was a great challenge for Planners to adopt suitable system to overcome the issues in the scheme. Community participation approach was the alternative considered. At present 75% of the construction is completed. Following important steps out of many have

been taken to promote community participation during the scheme augmentation.

Mobilising of Consumers – mobilising consumers to participate and contribute towards implementation basically depended on the incentives offered to potential consumers during and after implementation of the scheme. Following incentives, which are directly affected the consumers, were offered in the framework of the community participation approach described above (i) consumer families who contribute unskilled labour have given a reduction of 20% or Rs. 3,500 whichever is high from the connection charges of water supply (ii) priority was given to the consumers who have contributed towards construction when service connections are provided (iii) opportunities have been provided to the poor and low-income families to pay connection charges in 20 monthly instalments (iv) CBOs were given a responsibility to certify the eligibility of poor, and also to screen consumers who contribute towards construction (v) improve the capacity of CBOs as tariff collectors on payment basis and make other consumers aware of the benefits that the total community can gain in utilisation of profits from this services.

Institutionalising of Consumers – there are 9 zones in the scheme and several consumer groups have been formed in each zone on street, garden and Road basis. These community groups were motivated to form zonal level CBOs with their representatives. Finally the Central CBO has been formed for the whole scheme. The zonal CBOs and Central CBO were registered under the existing legal provisions to become legal entities.

Promoting Community Contributions – community contribution were required for laying 9km long distribution pipelines of less than 90 mm diameter, and construction of 20 nos of valve chambers, which is worth more than Rs 2.5 million, within 6 months. All unskilled and skilled labour have been organised by the zonal level CBOs. One of the significant contributions was a donation of land valued around Rs 1.5 million by a consumer for the construction of the water treatment plant. CBOs have played a great role in obtaining the consent of the consumer for the land donation.

Recognising & Strengthening of Consumer Institutions – all CBOs were given due recognition by the NWSDB at all level of implementation and during O&M. All consumers were asked to obtain services including concession from the connection fees for those who have contributed, through their respective CBOs. These consumer societies were made aware on their position as partner of the scheme management and consumer rights and consumer obligation toward the scheme management.

During the construction stage, CBOs were involved to solve the water right issues as the same source was selected for a proposed mini-hydropower project. With the community pressure, the proponents of hydropower project agreed to sign an MOU with the NWSDB.

Agreement with Consumer Societies on Tariff Collection – this is still at the negotiation stage as several options

are being explored to use CBOs for tariff collection and for minor repairs. Currently, it is suggested that the CBO are entrusted to minor repairs on payment basis, which reduces the overhead cost of the NWSDB for O&M while ensuring the reduction of NRW with prompt repairs. Also CBOs will be deployed as agents for tariff collection and a commission is proposed to be paid based on the total tariff collection per month. MOU is being drafted to formalize these proposals.

Lessons learned

The field experiences emphasized the adaptability of important RWS approaches, practiced during last 20 years, to solve some of the fundamental issues in implementation of small city water supplies. However, it is important to be cautious on the appropriateness of applying these RWS approaches in certain communities, as some may not be entirely suitable to the ground conditions. Hence, modification is a prerequisite for these RWS approaches to suit the context as and when required.

The fallacy of inability to adopt the participatory approaches in small city WS schemes has been invalidated by the outcome of the project. But however, it is important to note that the faith and commitment of the implementers on community participation and their readiness to change the institutional culture is very much required to obtain positive results eg. establishment of Community Coordination Unit (CCU) at the Regional Support Centers of NWSDB to support the community participation is one of them.

Provision of opportunity for people to provide unskilled labour for construction activities and translate them into an incentive has favored more on inclusion of poor segment for benefits.

The possibility of prompting effective community vigilant in reducing NRW and in other typical O&M activities has been demonstrated amply through the pilot implementation. Keeping their sustained interest in the long run would be proven only with the long-term monitoring of the pilot project.

Contact address

Ananda Dissanayake
Deputy Team Leader
Community Water Supply and Sanitation Project
9th Floor, Sethsiripaya,
Battaramulla,
Sri Lanka

Sunidha Senarathne
Deputy Team Leader,
Norad Assisted Capacity Development Programme 3rd water
Supply & sanitation (sector) Project,
19, Rahula Road, Katubedda
Moratuwa
Sri Lanka
