Community participation in rural water supply – Indian initiative

S K Tripathi and Bharat Lal, Department of Drinking Water Supply, Government of India

WATER FORMS THE basis of life, an essential prerequisite for development and growth. In fact, all civilizations have evolved around water. However, it has also been the reason for many local and regional conflicts. The drinking water sector today is recognized for reform and development with a clear policy for sustainable supply and consumption. The world has entered the 21st century with an enormous challenge - safe drinking water for all. According to the Global Water Supply and Sanitation Assessment Report-2000, prepared by UNICEF-WHO-WSSCC, about 1.1 billion people across the world are still without access to safe drinking water facilities. An additional 3 billion people are expected to join this group within the next two generations. Most of these people live in Asia, Africa and Latin America. Nearly 3.4 million people in the world, most of them children, die every year from diseases associated with lack of safe drinking water, inadequate sanitation and poor hygiene. To make matters worse the population is growing rapidly, particularly in the water scarce areas, further increasing the pressure. The effect of natural calamities viz. drought, floods, cyclone, earthquake, etc. on the availability of safe drinking water has aggravated the problem in certain areas. Water is fast becoming a scarce resource and in many regions of the world, lack of fresh water has already reached a stage of crisis.

The international community has to find solutions to the growing challenge of managing this increasingly scarce resource, so that the global goal to eradicate poverty can be achieved within a stipulated timeframe. In many parts of the world, drinking water has been acknowledged as a fundamental right. However, the poor continue to be the most vulnerable to changes in water resource availability, and are the least capable in adapting their livelihood to the changes. They will suffer the most if an effective solution to water resource management is not found.

Indian scenario

The Indian scenario of the drinking water sector is similar to the global status. There is a global desire to surge ahead and achieve the goal of reaching the un-reached. India being on the same policy frame has accorded the highest priority for rural drinking water to ensure universal access. In the **National Water Policy, 1987**, it has been clearly stated that "*drinking water needs of human beings and animals should be the first charge on any available water*".

The Global Water Supply and Sanitation Assessment Report–2000 has set the target to halve the proportion of people without access to water supply by 2015 and to provide access to water supply for all by the year 2025. However, in India, the Government has set the goal to provide safe drinking water to all by the year 2004. The highest priority will be given to all remaining "non-covered" (i.e. less than 10 lpcd) and quality affected habitations and thereafter priority will be given to "partially covered" (i.e. 10-40 lpcd) habitations.

Most of the sector constraints identified by the Global Water Supply and Sanitation Assessment Report – 2000, viz.

- financial difficulties,
- institutional problems,
- inadequate human resources,
- lack of sector coordination,
- lack of political commitment,
- insufficient community involvement,
- inadequate operation and maintenance,
- lack of hygiene education,
- poor water quality, and
- insufficient information and communication, are equally applicable to India.

In India the State Governments are responsible for providing drinking water facilities to rural habitations. The Government of India supplements the efforts of the States by providing financial assistance, policy guidance and technological support. There has hardly been any private sector investment in the rural drinking water sector. The only source of funds has been public investment. Over the decades, massive financial and technical inputs into the rural water supply programme have come from both the Central and the State Governments. In 1986, the Government of India created a National Drinking Water Mission, which in 1991 has been named as Rajiv Gandhi National Drinking Water Mission, with the mandate to provide financial, policy and technological support, and develop a multi-pronged approach relating to the rural water supply sector.

India has achieved considerable success in meeting the drinking water needs of the rural population. Yet, the results have not been commensurate with the huge investments made in this sector. With an investment of Rs.320 billion (US$ 6,809 million) on rural drinking water supply in the last fifty years, it has been possible to fully cover 86.9 percent of about 1.4 million rural habitations with drinking water facilities. About 11.7% habitations are partially covered and about 1.4% habitations are yet to be covered.

The latest report indicates that about 15% of the total rural habitations of the country are facing water quality problems, mainly due to fluoride, arsenic, iron, nitrate contamination and salinity. Despite this impressive coverage and even after installation of more than 3.5 million handpumps and over 116 thousand piped-water supply schemes, in many parts of the country especially during summer months, water scarcity still persists. Despite good progress, it is felt that the service level of drinking water supply in rural areas needs further improvement.

The Government has realized that investments alone are not enough, as systems are failing to be sustained. Systems often fail due to poor operation and maintenance. This is due to the perception of the rural people that water is a social good to be provided free of cost by the Government, rather than a scarce resource that should be managed by the community, or their grassroot level institutions, as an economic asset. From various studies, it has become clear that while managing these systems, it is necessary that the local community should be involved, not only in the operation and maintenance of the systems created, but also in planning, technology and system selection, and implementation of the project.

Another reason identified for this situation is the perpetuation of what has been called the **'dependency culture'** among the rural people. The rural water supply programme has so far been driven by a lop-sided top-to-bottom approach, entirely managed by the Government or its agencies in the form of purely engineering-based solutions. There has been nearly a complete lack of involvement of communities, the primary stakeholder, in the planning, selection, construction and management of the systems created. A sense of ownership by the community towards the systems created has also been lacking. The linkages with other potential partners, viz. local governments, private sector, NGOs, local entrepreneurs, etc. have also been either extremely weak or almost non-existent. It has been estimated that to provide safe drinking water to all rural habitations in the country would require a further investment of about Rs.450 billion (US$ 9,575 million). In view of increasing resource constraints, it would be difficult task for the Government alone to mobilize such huge investments single-handedly. Therefore, a productive and proactive involvement of user community and other stakeholders in resource mobilization and community participation in the implementation as well as the operation and management of the systems has become imperative. To translate the above strategy into practice, it requires massive efforts to transform the prevailing mindset of the major partners—the users, community, local government, government agencies, NGOs, etc.

Paradigm shift: Community at the centre

Generally the systems are designed and executed by a Government department and are imposed on the end-users with limited evaluation of the local requirements, preference of technology, affordability and willingness to pay for the service. As such, planning and design of the water supply schemes do not take into account the financial aspect of the proposed system in terms of capital cost and recurring cost. Acknowledging the necessity to involve local community for sustainability of the systems, the following elements are necessary for successful community participation in this sector:

- community mobilisation and capacity building;
- community share in the Capital investment;
- community ownership and control;
- operation and maintenance by the community; and
- assured water supply source for meeting community needs.

Field research has shown that when stakeholders are involved in operation and maintenance of the systems, they are likely to be willing to pay for it. When they are certain that they will control the funds, which are collected for operation and maintenance, and that water supply will be dependable, they participate in the process. In traditional Government programmes, people are neither aware of the technology aspects nor are given any choice between different technologies. Non-involvement of people in the design and execution of projects in many cases leads to substandard quality of materials used, poor workmanship and insufficient maintenance.

President **K. R. Narayanan** (1998) said that "India today needs a people's movement to meet its water needs and to protect its water resources…Encouraging a people's movement means a redefinition of everybody's role." With this in view, Government of India redefined the strategy in the drinking water supply sector to provide for community participation in rural water supply programme. It was thus recognized that a shift from a target-based, supply-driven approach, to a demand-based approach, where users get the service they want and are willing to pay for what is urgently required. Government of India has, therefore, launched sector reforms in the rural drinking water supply sector in the country on a pilot basis.

Sector reform: A new initiative

In order to achieve the desired goal, the Government of India has brought about policy changes by introducing reforms in the rural drinking water supply sector. A paradigm shift has been evolved in the rural water supply sector, where the emphasis is on demand responsive approaches, empowerment of local communities and ensuring their participation in the implementation and operation of drinking water supply schemes. After the Seventy-Third Amendment to the **Constitution of India**, the subject of rural water supply was placed under the Panchayati Raj Institutions (PRIs – rural local bodies). The Panchayats have been made responsible for providing safe drinking water in their respective areas. Government of India is supporting the process of empowerment and capacity building of the PRIs to enable them to discharge their responsibilities. In every

village, Gram Sabha, the general constitutional body of the village having all adult villagers as members has to be fully involved in reviewing the implementation and management of drinking water systems and sources.

In 1999, the Government of India introduced sector reform in the rural water supply sector. In this new approach, the Government's role is primarily that of a **facilitator**. The efforts are focused on creation of **awareness** amongst the people to ensure their effective participation in the programme. The community should be willing to manage and operate the drinking water supply schemes for which they should have a feeling of ownership. A part of the capital cost and full operation and maintenance cost is to be borne by the community. To operationalise the reform, to date, **63 pilot districts** have been selected for the implementation of sector reform pilot projects, of which 61 projects have already been sanctioned for implementation. The total cost of these projects is about **Rs.18 billion** (US$ 390 million), out of which the Government of India provides 90% of the capital cost and it is expected that 10% of the capital cost and responsibility of operation and maintenance will be borne by the community. These projects are basically process projects and are at different stages of implementation. About **70 million rural people are participating in these sector reform pilot projects and about 10% of the rural area of the country is experimenting with this participatory approach, where community contribution for capital investment is expected to be about Rs.1.8 billion** (US$ 39 million).

Funds for sector reform projects are being released directly to the District Water and Sanitation Mission (DWSM), which has been especially created for the purpose of implementation of the project works under the control, supervision and guidance of district level Panchayati Raj Institution (PRI). In some Districts, where the PRIs are fairly active and well entrenched, they are themselves implementing the projects directly instead of the DWSM. It has been planned that after gaining experience in the first phase, the sector reform approach would be further improved and expanded to the remaining districts of the country. It is possible to institutionalize community-based rural drinking water supply programme if the PRIs/ local communities are empowered to generate resources, and are trained and equipped to plan, implement, operate, maintain and replace water supply schemes themselves.

Institutional arrangement

Under the sector reform, the State Government and / or its sector agency is the **co-ordinating agency** for the project. Their role is primarily that of a facilitator. For the implementation of the projects, in each State, exclusive institutional arrangement at State-level, district–level and grassroot level has been envisaged. At national level, there is a National Body, which has members from various fields and acts as a **National Scheme Sanctioning Committee** (**NSCC**). This body is responsible for overall co-ordination and guidance. At State-level, the existing institutional set-up or a specially constituted **State Water & Sanitation Mission** (**SWSM**) is responsible for overall policy guidance, co-ordination with Central Government as well as with other State Departments and sector partners, monitoring & evaluation of the project implementation, auditing, etc. The district-level, **District Water & Sanitation Mission** (**DWSM**) is a multi-disciplinary body, registered as a society, and functions under the supervision, control and guidance of the District PRI. In some Districts, the District PRIs are themselves implementing the project, instead of the DWSM. The DWSM / District PRI is responsible for formulation and management of project, receipt and accounting of central funds, selection of private sector partners, NGOs, sensitization of PRI functionaries / Government officials / opinion makers, formation of Village Water and Sanitation Committees (VWSC), community mobilization, IEC campaigns, capacity building, etc.

Under the sector reform pilot project, in each village, after the sensitization, awareness campaign and capacity building, demand is generated. A Village Water and Sanitation Committee (VWSC) is constituted for the purpose of actual planning, implementation, operation and maintenance of the system. This is a committee of the Gram Panchayat (GP), which is the grassroot level body of the three-tier Panchayati Raj Institutions. The VWSC is regulated by a set of bylaws under the provisions of the State Panchayati Raj Act/ Rules. This body is in overall charge of the implementation of the scheme(s) and is the backbone of the reform process. In this body, suitable representation is given to women, weaker sections of the society and provision is also made for the co-option of other stakeholders, subject matter specialists, etc..

Sector reform pilot projects lay stress on women's empowerment through these VWSCs because in India, collection of drinking water is generally a woman's duty. Since women are the principal stakeholders in this programme, it is important that women are involved in all stages of rural water supply schemes, particularly while taking decisions on the location of the handpumps, standposts or spot sources in villages. Experiences have shown that where women are involved in all stages of the schemes, the performance of the water supply systems has been better and more effective.

Under the project, the **scheme cycle** is envisaged to be about 36 months, consisting of:

- Institutionalizing phase – not more than 3 months;
- Sensitization and Identification phase – not more than 12 months;
- Scheme / System planning phase – not more than 9 months; and
- Implementation and Commissioning phase – envisaged to be not more than 12 months.

Under the project concurrent activities like institutionalization of community based water quality monitoring and surveillance, monitoring and evaluation of various aspects

of the project / schemes and other associated activities are also taken up for implementation.

Earlier initiatives

Government of India is hopeful that community participation in the rural drinking water supply sector will pervade the whole country in the form of a mass movement and the local governments will be empowered to take their own developmental decisions. Since the process is new, it may take some time to bear fruit, but such initiatives have been successfully implemented in some form or other in States like Uttar Pradesh, Kerala and West Bengal, as reported in the following sections.

SWAJAL project

The SWAJAL project is being implemented in the State of **Uttar Pradesh** and the newly created State of **Uttaranchal**, in 1,000 villages covering 19 districts, with World Bank assistance. The objectives of the project are:

- to assist the State Governments to identify and implement an appropriate policy framework to promote long-term sustainability of the rural water supply and environmental sanitation sector;
- to deliver sustainable health and hygiene benefits to the rural population through improvements in water supply and environmental sanitation;
- to improve rural income through time savings and income earning opportunities for women;
- to test alternatives to the current supply driven service delivery mechanism; and,
- to promote sanitation and gender awareness.

The beneficiaries have agreed to bear part of the capital cost and full operation and maintenance cost of the project. The project seeks to empower the community, to enable them to take the necessary decisions regarding project planning and implementation. Community level procurement of goods, works and services is a unique feature of this Project. To ensure that each player is equipped with the skills to fulfil their roles and responsibilities, capacity building is in-built in the project design. The major achievements of the projects so far have been the following:-

- It has been proved that the partnership between village communities, NGOs and Government, where the Government mainly takes up the role of a facilitator, has worked successfully.
- The project has demonstrated that as long as the communities are taken into confidence, they are indeed willing to contribute towards capital costs and also willing to operate and maintain their own schemes in the future.
- The project has demonstrated that the alternative delivery system vis a vis the present top-down Government dominated system is viable.
- An enormous amount of capacity has been built in the communities and the NGOs, which can be harnessed for projects in other development areas.

The overwhelming success of the SWAJAL Project has been the main motivating factor for the expanding the concept to 63 Pilot Districts across the country.

West Bengal Pilot Project

Apart from the SWAJAL project, there is the experience of the West Bengal Pilot Project, which responded to the community demands for safe drinking water in an Arsenic-affected area. In 1998, a number of village youth clubs in **West Bengal** requested a local non-government organization, the Ramakrishna Mission (Lokashiksha Parishad), to assist them in solving the problem of a shortage of potable drinking water in their villages. A project proposal was prepared and was funded by the Central Government. While the project primarily aimed to supply safe drinking water to 115 hamlets in five districts of the State, the presence of arsenic in the groundwater of 26 hamlets caused the project to look closely at the problem of providing arsenic-free water. During the project preparation, communities indicated that they were willing to contribute to the cost of the project and were prepared to operate and maintain the future infrastructure themselves. Households participating in the project contributed 30% of construction costs and 100% of O&M costs. Community mobilization campaigns and general training programmes were held to enable villagers, Village Water and Sanitation Committees (VWSCs) and Youth Clubs to actively participate in the project. VWSCs were responsible for overall construction / installation of handpumps and community arsenic removal plants where used. This project has demonstrated that:

- communities are willing to pay for safe drinking water;
- effective supply chains need to be developed for sustainable solutions especially for treatment plants;
- projects need a good communication strategy; and
- inter-village exposure visits are effective.

Kerala experience

Another unique experience relates to the Ollavana Gram Panchayat in Kozhikode district of the southernmost State of India, **Kerala.** Faced with an acute water supply problem, in spite of the efforts of the State Government, the people of Ollavana decided to intervene and experiment with operation of rural water supply scheme with their own resources.

The scheme works on fairly simple principles. A co-operative society is formed, which charges membership fees depending upon the cost of the scheme. The scheme generally consists of an intake well, an overhead tank and a distribution system with household connections. Expertise, material and labour are sourced locally. Operational

developments and improvements were induced subsequently as per the requirements. Different schemes have distinct, but equally simple procedures for consumption, maintenance and billing.

The full capital cost was borne by the villagers and they have also shouldered the full operation and maintenance of the scheme implemented by them. The local community has demystified the water supply technology and shown that local initiatives can and do succeed. This experiment has also revealed that community managed schemes are better constructed and better managed and more cost effective than the heavily subsidized schemes run by the State.

Conclusion

Such examples of community participation in the rural drinking water supply sector are rapidly increasing. These experiences could be replicated throughout the country with constructive efforts being put in by not only the Government, but also the people, their political representatives, NGOs, media and the private sector. As the sector reform pilot projects are very complex in nature and quite large in magnitude, implementation of 63 pilot projects itself would be a challenging task.

Having achieved appreciable coverage through the normal programmes implemented with 100% Government funds, it is now envisaged that these programmes should be reoriented to become community-based demand-driven programmes as soon as possible. This transformation would depend on the time taken by the sector reform pilot projects to gain success and for replicable models to emerge. It is envisaged that sector reform pilot projects under rural water supply would go a long way to improving the quality of life of the common people, especially the rural poor. It would empower them to shoulder the responsibilities of taking up other related rural development programmes on a community-based structure, and revolutionize the total development activities on a long-term and sustainable basis.

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S K TRIPATHI, Department of Drinking Water Supply, Government of India.

BHARAT LAL, Department of Drinking Water Supply, Government of India.