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INNOVATIONS IN DEVELOPMENT

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UTTARAKHAND DECENTRALIZES RURAL WATER SUPPLY

Uttarakhand Rural Water Supply and Sanitation Project

MINISTRY OF FINANCE
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SUMMARY

Water Supply Comes to Rural Uttarakhand

India has invested almost $2.5 billion each year to improve water supply for over 700 million rural people, making it the largest such program in the world. Most rural water supply and sanitation systems in existence today have been designed and implemented by state-run agencies in a top-down manner with a focus on building infrastructure. Not surprisingly, government data show that 96 percent of the rural population has been 'covered' with a tap or a well within a reasonable distance from their home.

In practice, however, many rural water supply systems are no longer functional. Maintenance has been neglected, water sources have dried up, the quality of water has deteriorated, or systems have long outlived their use. Consumers have also treated water as a right to be provided free-of-cost by the government, rendering their water supply systems both financially and environmentally unsustainable. As a result, the promised minimum of at least 4 buckets of water per person per day dœs not often reach the people.

In 1999, India sought to decentralize the delivery of rural water supply and sanitation services. Henceforth communities would choose the service they wanted and were willing to pay for. They would also plan, construct and maintain their own systems, while the government's role would change from being a 'water service provider' to a 'facilitator'.

Uttarakhand has now become the first state in India to implement this decentralized approach in both letter and spirit across its entire territory. In keeping with the 73rd amendment of the constitution, it has transferred the control of 'funds, functions and functionaries' to the lowest rung of the local governance infrastructure, the Gram Panchayats.

By March 2013, 5,000 habitations had built their own water supply systems, benefitting some half a million rural residents, with support from the World Bank's Uttarakhand Rural Water Supply and Sanitation Project. Strong community involvement has reduced the cost of the schemes, curbed the leakage of funds, and led to huge savings for the state exchequer. Women, who have traditionally borne the brunt of fetching water, have been involved at all stages of planning and implementation.

Catchment areas have been protected to recharge springs and maintain water quality. Given the state's mainly hilly terrain, most schemes are gravity-based piped systems that bring 24/7 water supply to rural homes without using power. Communities have increased their capacity to plan and implement works, equipping them to take on other development projects in future.

The project has twice received the Uttarakhand Government's Right to Information (RTI) award for transparency and good governance. The Government of India's National Rural Drinking Water Program has mandated that other states follow similar policies and practices.

CONTEXT

Water scarcity is a major challenge for Uttarakhand where almost 90 percent of the territory falls within the Himalayan region. Three out of four of the state's almost 9 million people live in the rural areas with densities varying from around 40 people per square kilometre to over 800.

Many of the state's rural water supply systems no longer meet community needs. Frequent landslides damage water pipes and other infrastructure. It often takes weeks or even months for technicians from the state-run Uttarakhand Jal Nigam (UJN) or the Uttarakhand Jal Sansthan (UJS) to reach remote villages.

Moreover, not enough attention has been paid in the past to water quality or to ensure that water sources remain sustainable. Streams and springs are depleting and nearly a third of the state's rural water supply systems suffer from water shortages, especially during the summer months. Women and children have to spend between one to three hours a day to collect water - even longer in hilly locations – or potable water has to be brought in from other sources by tankers and mules.

In addition, the large majority of the state's rural population - some 75 to 80 percent - does not have access to sanitary latrines. This, together with the acute scarcity of drinking water and poor drainage facilities has become a major cause of health problems in the state.

The Uttarakhand hills face an acute scarcity of water and streams and springs are depleting

CHALLENGES

An earlier pilot in Uttarakhand (Swajal Project 1996 - 2002) showed that rural communities can indeed plan, construct and maintain their rural water supply systems. Nevertheless, decentralizing these functions across the state was a challenge. All levels of political leadership – parliamentarians, legislators, gram pradhans – needed to be convinced of the benefits of decentralization and, with each new election, the case had to be made afresh.

Importantly, the mindsets of sector personnel needed to change. They would need to adjust from being the designers and builders of schemes to becoming the trainers and facilitators of communities who would henceforth take the decisions in such matters.

On a positive note, Uttarakhand had the advantage of cohesive rural communities that had developed trust and confidence in the decentralization process through the outstanding success of the Swajal pilot in the state. With training in a range of technical and bookkeeping functions, communities were keen to take on their new roles and responsibilities.

Given the challenges, the program only gained momentum after the first three years, during which time mindsets of sector personnel were changed and Gram Panchayat and other elections that delayed community processes were completed.

Uttarakhand's cohesive rural communities were keen to take on their new responsibilities

INNOVATIONS

The project decentralized decision-making at all stages - planning, procurement, construction and management - to panchayats and communities in all 13 districts of the state. They were supported by sector institutions and NGOs with strong grassroots experience who motivated and trained the communities to take on their new roles. Several consultative meetings were held with hundreds of district and village panchayats before consensus was reached on the design of programs, in addition to deliberations with the World Bank team and sector institutions. Several implementation issues were resolved and the model constantly refined to arrive at a realistic program. A number of innovations were introduced:

Water, sanitation and source sustainability

As the health of communities depends not only on clean water, but also on better sanitation and safe water sources, an integrated approach towards all three was adopted. Ensuring the sustainability of water sources was made an integral part of the program. Trees were planted in the upper catchment areas and check dams, contour trenches, and recharge pits were constructed to ensure the sustainability of streams and springs. Awareness of health and hygiene was raised, water testing kits were issued, and the safe disposal of both liquid and solid waste was ensured. State government programs and funds for all these activities were integrated.

Campaigns mobilized communities and raised awareness. A quarterly newsletter shares experiences

Roles and responsibilities redefined

The roles and responsibilities of Gram Panchayats (GP) and sector institutions were redefined. Decentralized institutional arrangements were developed, strengthened and operationalized. Uniform policies for capital cost contributions and O&M costs were adopted across the state.

Communities choose their systems

Communities were given various technological options from which they could choose. For each option, the capital cost, monthly tariffs, O&M requirements, and the level of service they could expect from each were explained. The final decision was taken at community-wide meetings where villagers confirmed their willingness to share the capital costs, pay O&M costs in full, and undertake full responsibility for the operation and maintenance of their systems. One-time contributions towards capital costs - either in cash or kind, including labour - and estimated O & M costs for a year were collected upfront and deposited in bank accounts opened specifically for the purpose. The process was led by Users' Water and Sanitation Committees formed with the help of NGOs.

Communities plan and construct

State RWSS funds - ranging from Rs. 2 lakh to Rs 40 lakh per scheme - were disbursed

Decisions were taken and grievances sorted out at community-wide meetings

Communities planned and constructed their water supply systems

Most systems were gravity based, bringing 24/7 water supply and saving power costs

directly to the bank accounts of local user committees. Accounts were maintained by the Gram Panchayats in accordance with formats prescribed by the Accountant General. Capital contributions per family usually amounted to Rs. 600 for private water connections and Rs. 300 for public stand-posts, with contributions being halved for vulnerable families from SC/ST groups. The remaining construction costs were met by the GoI and the state government.

O&M costs met in full

O&M costs were recovered in full and village panchayats and water user committees were trained in the operation and maintenance of their systems. Households paid a minimum of Rs.5 per month for hand pump and stand post connections, while those with private connections paid Rs.45 a month. Charges were higher in the hills, but were subject to a ceiling of Rs.10 for hand pumps and stand posts, and Rs.55 for private connections. In high-cost multi-village schemes, the state subsidized these costs in a transparent manner.

Transparency maintained at all stages

Complete transparency was maintained at every stage. Project details, names of committee members, maps of proposed pipes and standposts, as well as the details of the contractors employed and the funds disbursed at each stage were prominently displayed on blackboards and village walls. Communities monitored the progress of their schemes during all the phases of implementation, as well as after the schemes were complete. Grievances were discussed at community-wide meetings where most issues were sorted out. A number of innovative independent reviews including third party quality checks, social audits, beneficiary assessments and sustainability evaluation exercises were made an integral part of the program.

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Women were involved at all stages of planning and implementation

Transparency was adhered to and monitored

Sector institutions provide support

State-run sector institutions - Uttarakhand Jal Nigam and Uttarakhand Jan Sansthan - provided communities with technical assistance, financed part of their water supply works, and provided back-up support and oversight. They also remained responsible for inter - village bulk water supply and multi-village schemes as well as for meeting contingencies such as restoring water supply systems after landslides and earthquakes. To ensure that systems remained sustainable, they monitored the technical, financial, institutional, social, and environmental aspects of the works. Schemes in randomly selected villages were audited by independent financial and technical auditors. Periodic reviews were conducted to learn from field experience and improve strategies and design.

Women play key role

As women have traditionally been responsible for fetching water in rural communities and have a high stake in the sustained success of their systems, the project involved women at all stages of planning, implementation and maintenance of the works. Women were trained to participate in village deliberations in an informed manner as well as to operate and maintain their systems. All village water user committees and sub-committees in charge of procuring materials and services were mandated to have 35 percent women members.

Information placed online

Water institutions and rural communities have been provided with online access to automated real time data on water flows, power consumption, and chlorine levels to enable them to better manage their systems. An online sector information system has also been established to monitor the progress of the sector-wide approach across the state.

IMPACT

By March 2013, 5,000 habitations had built their own water supply systems benefitting more than 750,000 rural residents (project target is 1.2 million). A number of benefits were recorded:

Time and effort saved

An independent study found that making water available nearer village homes had a huge impact on women's lives. After systems became operational, it took the women only 20-30 minutes to fetch water, saving them from the daily trudge of some 3-4 hours a day across hilly terrain carrying heavy pots of water on their heads. Freeing the women from this daily chore enabled them to spend more time in taking care of children, earning an income, or pursuing leisure activities.

Power costs reduced

Some 80 to 90 percent of the new water supply systems rely on gravity to bring water to village households, saving on power costs. Earlier, engineering approaches to water supply tended to pump water up hillsides from the river below to reach village homes.

Sanitation improved

While only 21 percent of rural households had individual latrines before the project (2006), their number increased to 80 percent by Feb 2012. About 525 habitations have received government awards for remaining free of open defecation. This is expected to result in fewer water-borne diseases and improved health outcomes.

Local capabilities built

The new decentralized approach has been enthusiastically received by local governance institutions. With increased capacity to design, implement and manage the works - in addition to managing procurement, finances and accounting - they are now equipped take on other development projects within their areas.

Water sources protected

The protection and management of water sources in catchment areas has improved the environmental sustainability of water supply schemes.

Leakage of funds reduced

Decentralization to local communities has eliminated layers of bureaucracy and reduced the leakage of funds - estimated to be about 40 percent of the total funds deployed. Decentralization has also reduced the time and cost of lodging complaints with the authorities, paying bills, getting bills corrected, and obtaining sanctions for new water connections. Repairs are now much quicker and more long-lasting because of strict supervision by communities.

Sizeable savings for state exchequer

Detailed assessments show that decentralizing service delivery to local communities is saving the Uttarakhand government about Rs. 18 crore a year. This includes savings in institutional, capital and O&M costs, as earlier the sector institutions tended to focus on building larger

and more capital-intensive schemes. Savings are expected to increase to Rs. 52 crore a year as more villages implement the program.

LESSONS

The project has largely demonstrated that:

- Community-led delivery systems are not only more desirable than the present top-down government-dominated system, but also feasible.
- As long as demand-based approach is adopted, communities are willing to contribute towards capital costs and plan, implement, operate and maintain their own schemes.
- The possibility of misappropriating and misusing the funds is minimal if transparency at each stage is adhered to and monitored.
- When properly trained, communities can efficiently and effectively resolve disputes, procure materials, conduct financial transactions, and maintain records and books in a satisfactory manner.
- Partnership between village communities, NGOs and the government can be successful where the government takes the role of facilitation and co-financier.

GOING FORWARD

The World Bank has supported the government at each stage of the sector's development. In the 1990s, the first generation of reforms introduced decentralized delivery of services through community managed demand-based approaches and, in the 2000s, the second generation scaled up these community-led models. The third generation of reforms is now promoting sector-wide approaches that integrate rural water supply, sanitation, and source sustainability along with higher levels of service, including 24/7 metered water supply.

The Uttarakhand Rural Water Supply and Sanitation Project has built on the foundations laid under a World Bank pilot that pioneered the community-led model in the state (Swajal 1996-2002). Lessons have also been incorporated from six World Bank-funded rural water supply and sanitation projects in India (Kerala, Karnataka, and Maharasthra), Sri Lanka, Bangladesh, and Nepal.

By June 2014, the project aims to cover the remaining villages with decentralized water supply and sanitation services, benefiting at least 1.2 million rural people. The remaining 20 percent of households are also expected to be covered with household latrines by then.

The initial delays encountered in changing mindsets have provided multiple lessons for other states wishing to adopt the sector-wide approach, as well as for the GoI's reform program.

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