Providing a "plus" to community-managed rural water supply: Chhattisgarh PHED

Chhattisgarh

COMMUNITY MANAGEMENT OF RURAL WATER SUPPLY

Community Water *plus*

Three interesting features in this case

- Community management can work with minimal support but is susceptible to failure
- A safe sustainable source of water is a limiting factor in the service, which is beyond the technical and financial capabilities of community service providers
- Villages studied have experienced varying degrees of urbanisation, which has led to v increase in demand for water for domestic purposes. Hence, water systems must keep pace with economic development.
- With the change in funding patter by Government of India that is increasingly channelling the funding through Panchayat Raj Institutions, public water utilities need to shift their focus on supporting community service providers from centralised, engineering-focused interventions

Key data on the Chhattisgarh context

All India data for reference in parenthesis
Water supply coverage: 97% (96%)
GDP per capita: $3,340 ($4,243)
HDI: 0.358 (0.467)
Devolution Index Rank: 9 out of 24

Photo: Prakash C Dash

Community Water Plus, a research project, has investigated twenty case studies of successful community managed rural water supply programmes across 17 states in India. Through these case studies, the research has gained insight into the type and amount of support to community organisations that is needed, and the resources implications of this 'plus' – in terms of money, staffing, and other factors. This document captures the inputs that contributed to improving water supply to households and an assessment of cost by the Public Health and Engineering Department (PHED) in Chhattisgarh.

Since Chhattisgarh's constitution in 2000, the PHED has been supplying drinking water in the entire state. In rural areas the PHED is implementing piped water supply schemes in line with the State's vision. The piped water schemes are set up and after initial support handed over to the Gram Panchayats or Village Water Sanitation Committees (VWSCs), for operation and maintenance (O&M). The PHED provides crucial support in aspects such as training the operator and post construction support involving water quality testing, assessing functionality and technical assistance for major repairs. This case study analyses the support provided by the PHED to VWSCs so that they carry out effective management of the piped water supplies.

The enabling support environment

The PHED fulfils the role of the enabling support environment by extending on request and supply-based support to VWSCs in the following forms.

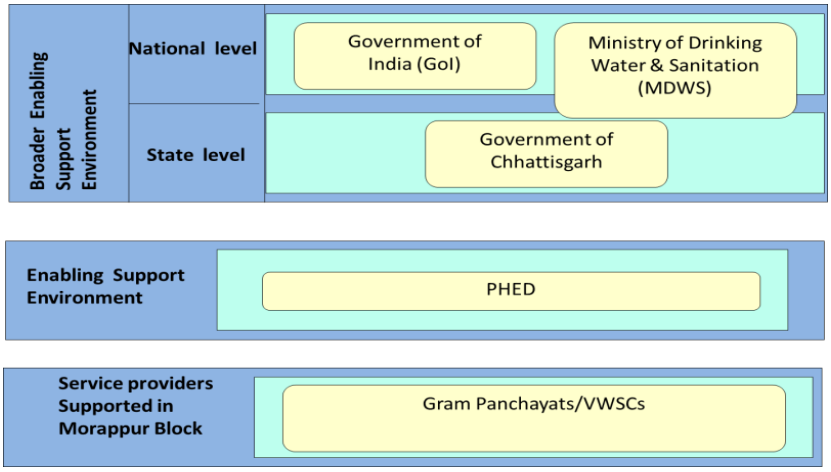

Figure 1 Institutional set-up in Chhattisgarh

- **Training and handholding** – PHED engineers plan and design schemes, while private contractors implement them. After construction PHED operates the scheme for three to six months. It concurrently provides technical training to community pump operators on its operation. This initial handholding is a critical support arrangement that ensures that schemes are actually functioning. The Village Water and Sanitation Committee are trained in water quality testing. However, no formal training is given to Gram Panchayat in scheme operation.
- **Capital and technical assistance** - is provided for major repairs and capital maintenance that exceed the capacity of Gram Panchayat.
- **Subsidy/grant** – in addition to the capital expenditure, a grant is given for operating expenditure to successful schemes providing water all year round.
- **Monitoring** – involves regular assessment of scheme functioning.
- **Fund mobilisation** – for major repairs are done following a request by the Gram Panchayat.

Village Water and Sanitation Committee as the service provider

The water supplies are managed by VWSC, who are sub-committees of the Gram Panchayat. Gram Panchayat takes over scheme operation if water committees fail or are not in place.

Concretely this means that in most villages, the schemes are run by community pump operators and the book keeping was done by the Gram Panchayat secretary. In the villages studied, the income and expenditure for water supply are systematically tracked.

The Gram Panchayat being the service provider, sometimes uses its authority as local self-government. With community support it can take decisions of stopping pensions or ration card benefits to reduce non-payment rate effectively by defaulters.

Further, the Gram Panchayat maintains accountability by information sharing and taking user feedback and complaints in the Gram Sabha meetings.

Community participation includes informing people about the plans and arrangements, allowing limited amendments, involving them in siting boreholes and overhead storage tanks, and approving tariff increases or salaries for the pump operator in the Gram Sabha.

Service received by households

Water sources across villages comprise community-managed household connections, public stand posts, private open well and hand pumps managed by PHED. Coverage rate with household connections vary from 63% being highest to 43% as lowest. In all villages groundwater from boreholes is supplied through distribution network.

Table 2: Service levels received in intervention villages at household level (n=90)

	Quantity	Accessibility	Quality	Continuity	Reliability
High	21%	58%	99%	44%	98%
Improved	22%	1%	0%	20%	2%
Basic	16%	8%	1%	36%	0%
Sub-standard	29%	16%	0%	0%	0%
No service	12%	18%	0%	0%	0%

The majority of consumers receive acceptable service levels confirming service effectiveness. However, 41% still receive inacceptable quantities of less than 40 lpcd and 34% spend over 30 minutes a day on collecting water.

User satisfaction varied from very satisfied to not satisfied (see Table 2). Dissatisfaction reasons included distance to the nearest water source and short supply duration. Equity was an issue across villages. Marginalised groups at village edge were less benefitted and had less deciding power in system designs and pipeline layouts, causing worst coverage in their hamlets.

Table 2: Satisfaction with water supply

	Kutulbod Batagaon	Amatola	Belgaon
Very satisfied	60%	57%	97%
Somewhat satisfied	37%	27%	3%
Not satisfied	3%	17%	0%

The costs

Capital costs - a total of 1969 INR/person - are completely borne by the state water supply agency. Of all the capital costs, only around 1% is for software support, such as awareness raising in the communities. In terms of recurrent costs, it is to be noted that much of this comes from funding mechanisms from the national government, state government and local government. Of the 98 INR/person/year, communities pay around 46%. These are roughly the costs of minor operation and maintenance, pump operator's salary, electricity, spare parts, salary for water quality testing and monitoring and coordination with other institutions

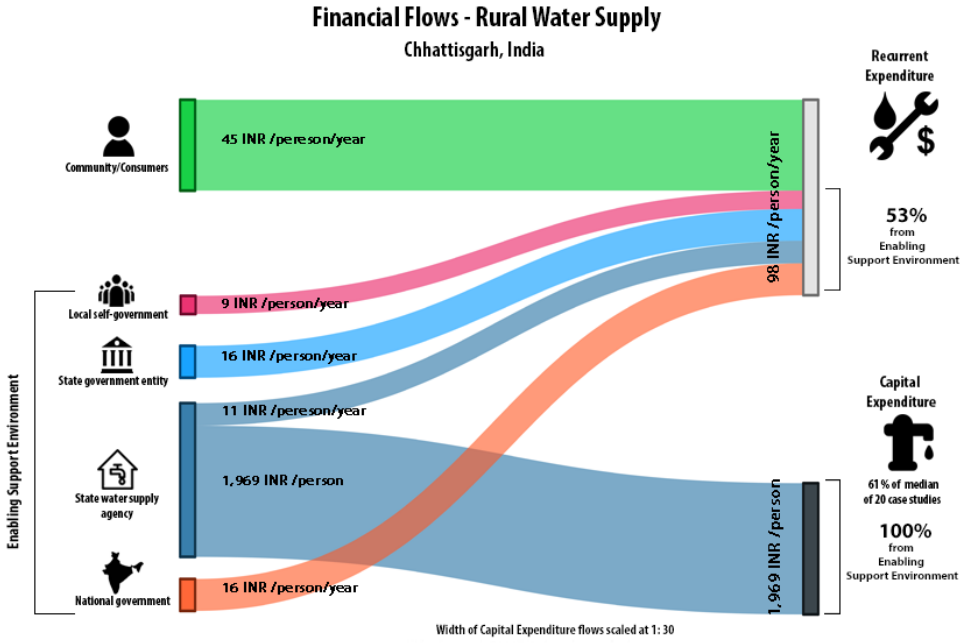

Figure 2: Capital and recurrent costs of service provision in Chhattisgarh

Conclusion

The research study found Gram Panchayats were the community level service providers. They manage the piped schemes in majority villages except one with an independent functioning water committee. The Gram Panchayat performs several functions like book keeping and pays significant amounts of operation and maintenance cost. The community is indirectly managing the scheme through Gram Panchayat that is an elected body of the community. Communities are consulted about major decisions through village meetings or informal channels. Therefore, the service delivery model is classified as a form of direct public provisioning with community involvement.

PHED is the main support institution supporting communities in water supply management. For initial three to six months after construction PHED staff and engineers operate the schemes and involve local technicians and the service provider. This crucial support arrangement ensures effective system functioning and building community's capacity to run the schemes after handover. Ongoing support after handover is limited to water quality testing and assessing functionality. Systematic support was found lacking due to absence of special funds and staff trained in community engagement.

The findings suggest that the current model of supporting community-managed rural water supplies in Chhattisgarh is successful in delivering acceptable services to a majority of users. Although challenges persist in water quantity levels received due to inadequate water pressure. Equity in access to scheme benefit was an issue in all villages though it was not deliberate.

The type of service provision can be classified as direct public provisioning with community involvement. Gram Panchayat as elected body performs a lot of functions directly and pays for significant amounts of the service provision. The Gram Panchayat have effective mechanisms for accounting and managing cash, but there is scope for improvements in technical capability such as water security planning which indicates limited professionalisation of service provider.

About this note

This is a summary of a full case study as part of the Community Water Plus project. The original case study was written by Matthias Javorszky, Prakash C. Dash and Pramil K. Panda. The full case study can be downloaded **http://www.ircwash.org/projects/india-community-water-plus-project**

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