

## Gravity-fed water supply in Mandi district

Himachal Pradesh

# COMMUNITY MANAGEMENT OF RURAL WATER SUPPLY

## Community Water *plus*

### Three interesting features of this case

- Communities can manage water supplies with limited support if the system is technologically simple, and there is substantial up-front support.
- Transforming public water bodies to support community management requires large-scale programmes, small scale pilots can be ignored.
- Community management does not ensure equity.

### Key data on the Himachal Pradesh context

All India data for reference in parenthesis

Water supply coverage: 96% (96%)

GDP per capita: \$5,265 (\$ 4,243)

HDI - 0.652 (0.467)

Devolution Index rank: 12 out of 24

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. In this document we capture the inputs that contributed in improving water supply to households and an assessment of costs of gravity-fed schemes developed through the Indo-German bilateral pilot in Himachal Pradesh.

Though Himachal Pradesh is blessed with plenty of natural water resource, service delivery is often a challenge, especially in highly dispersed rural habitations. The villages in this study were provided with gravity-fed drinking water systems under an Indo-German bilateral pilot project. Significant software support from the state Irrigation and Public Health (IPH) department was provided during the implementation phase, but ongoing support has been lacking. This has led to service levels dropping over time.



## The enabling support environment

The support entities in the intervention village are GIZ and IPH and a local NGO, which was involved in delivery of some parts of the project.

- The GIZ staff provided technical advice and project management, which involved preparatory work including selection of pilot villages, internal training for IPH staff and developing the programme design. It is the main funder of capital costs, with 10 per cent contribution from villages towards hardware costs. GIZ also covered the software costs.
- The IPH through its dedicated project cell was responsible for delivering the project and conducting detailed technical work. IPH took the responsibility for the construction, maintenance and operation of water systems and tariff collection. It also provided significant software support during the implementation phase, but ongoing support has been lacking.
- GIZ and the IPH attended regular meetings to monitor physical and financial progress, but only during the capital investment phase.
- External bodies were also engaged including consultants to deliver some research activities and local NGOs to deliver multiple Information Education and Communication (IEC) activities during capital investment phase.

## Community service provider

Village Water and Sanitation Committees (VWSCs) were established as part of the IPH-GIZ project to play the role of community service provider. However, this model has sustained only in one village (Chahadi). In other villages, more informal committees have superseded the VWSC with representation from every household within the village, or simply collapsed, and the systems are now managed on an ad-hoc basis.

Tariff collection follows a similar pattern, with some villages having regular collection and building up of modest reserves. The remaining villages collect contributions from community members only when there is need to make repairs. None of the villages have employed staff to maintain the system. Villages rely on varying levels of volunteerism for the limited operation and maintenance required of the gravity flow systems.

In the control village the level of service delivery is high as the community employs a system operator, ('Jal Rakshak') who is responsible for the limited operation required and the most minor maintenance tasks. The community has no financial responsibility as the salary of the Jal Rakshak is paid by the IPH.

## Service received by households

The water sources consists of a mix of VWSC managed and IPH managed public standposts and individual household connections or shared connections.

Villages with VWSC managed gravity scheme enjoy an excellent service, which provides an essentially unlimited quantity of water, which is perceived as high quality. Proximity of service reservoir to settlement also contributed to uninterrupted water supply as any breaks in the pipeline could be fixed quickly.

The only concern is reliability, which was reported as sub-standard possibly due to frequent breakdowns due to long supply pipeline from the water source. Due to lack of system for routine maintenance, each breakdown took a minimum of 3-4 days to get fixed. Households in the control village used the IPH supply system. The majority of them had access to household connections and few were using public stand posts. The service levels of household connections were generally very high and majority households received 24x7 supply of water.

## The costs

Capital costs - of a total of 3,537 INR/person - are largely done by the external support entities in the study area. The state water supply agency covers around 39% of these capital costs. Community contributions to the initial implementation costs are minor. Of all the capital costs, around 62% is for software support. In terms of recurrent costs, it is to be noted that again a major part comes from the communities. Of the 106 INR/person/year, communities pay around 97%. These are roughly the costs of salaries, minor operation and maintenance. Local government contributions are the costs of major repairs. The contribution of IPH in ongoing support is only for chemicals.

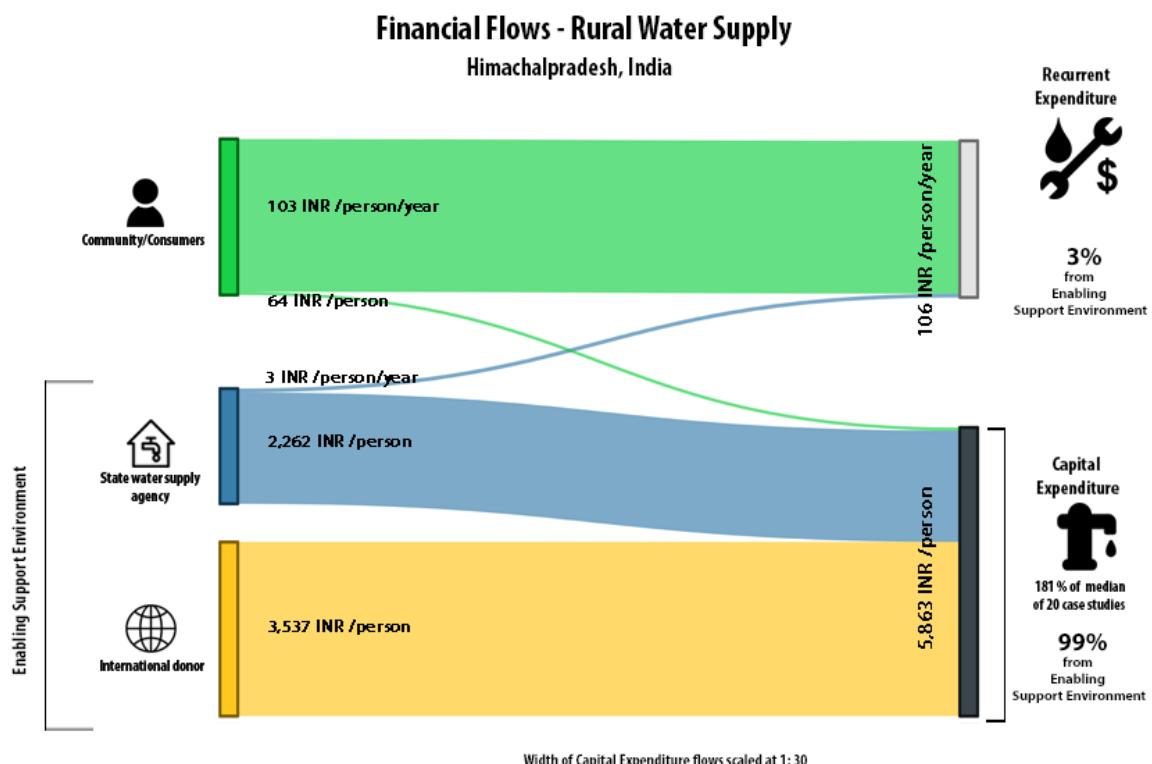


Figure 2: Financial flows for capital and recurrent costs

## Conclusion

The study concluded that even with little or no on-going support, community management can still be successful, but this success can be sustained only till a point. In case of factors, which are beyond the coping capacity of the community, the service level is likely to decrease and is unlikely to improve without external support.

The relative success of the community managed water supply in the study villages was due to the simple technology, which requires limited maintenance, negligible running costs and the voluntarist approach of the communities for managing and operating the water systems that helped in maintaining a high quality service to users.

Although the WASH project was intended as a pilot for future implementation of community management this model has not been adopted, with the IPH following a much more limited form of community management with only simple tasks being transferred to communities.

## 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 Benjamin Harris, Dr Urmila Brighu and Rajesh Poonia. The summary was prepared by Ruchika Shiva. The full case study can be downloaded <http://www.ircwash.org/projects/india-community-water-plus-project>



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