

Evaluating waterpoint sustainability and access implications of revenue collection approaches in rural Kenya

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Rationale

- Water policies in many sub-Saharan African countries expect rural communities to cover the cost of rural water supply operation and maintenance
- Rural communities adopt a diversity of approaches to revenue collection, including payment upon breakdown, monthly or annual fees, and pay-as-you-fetch payments
- However, little is known about the impact different payment approaches have on the operational and financial performance of rural water supplies and the decisions of households to use an improved water source
- This study sought to understand whether pay-as-you-fetch and monthly fee arrangements lead to different outcomes in terms of revenue, repair times, and water source choices



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Methods

- The study site was Kwale County in Kenya, which played host to the first large scale deployment of the Afridev handpump by way of a programme that installed 550+ handpump-equipped boreholes between 1983 and 1995
- All water points in two sub-counties (Msambweni and Lunga Lunga) were mapped in 2013, and respondents were asked what payment arrangements they had in place and whether financial records were being kept by water committees
- In total, financial records were identified at 100 communities, and data used for this study spanned a 27 year period
- A survey of more than 3000 households was then conducted, which included questions about water source choices
- Various statistical techniques were applied to determine whether payment approach was significantly associated with amount of revenue collected, handpump repair time, and improved drinking water source usage

Results

- Pay-as-you-fetch arrangements generated significantly higher levels of revenue (compared with monthly fee payments)
- Water committee cash flows strongly mirrored rainfall season, with wetter periods leading to reduced revenues and expenditures
- Water points with pay-as-you-fetch arrangements had significantly faster handpump repair times (compared with monthly fee payments)
- Pay-as-you-fetch arrangements were significantly associated with an increased likelihood of a household choosing an unimproved drinking water source (compared with monthly fee payments)

Implications

- The findings illustrate a tension between financial sustainability and universal access
- If "safe water for all" is to become a reality, policymakers and practitioners need to resolve this tension and ensure rural water services are both sustainable and inclusive

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