

## A multi-decadal and social-ecological systems analysis of community waterpoint payment behaviours in rural Kenya

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### Rationale

- Community-based financing of rural water supply operation and maintenance is a well-established policy principle in sub-Saharan Africa
- Yet evidence from over 90,000 waterpoints in five sub-Saharan African countries suggests a majority of communities fail to establish and sustain a revenue collection system
- This situation is likely to have major implications for the operational performance of rural water supplies and adversely impact the health and welfare of millions of water users forced to resort to unsafe alternatives



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- This study sought to empirically assess the prevalence and determinants of financial contributions among water users

### 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 consisted of more than 53,000 household payments spanning a 27 year period
- A survey of more than 3000 households was then conducted to collect information about socio-economic and water use characteristics
- Multivariable regression analysis was carried out to identify factors associated with the proportion of water users paying their water user fees each month

### Results

- Non-payment and late payment were prevalent: over the long term, around 1 in 4 households did not pay their monthly fees each month
- Payment rates were significantly higher when:
  - ◊ water was considered palatable
  - ◊ groundwater had low pH
  - ◊ the water point was located close to user households
  - ◊ water was used for productive purposes
  - ◊ there was little rainfall