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Community management of rural water supply in Malawi: part of the sustainability problem, not the solution

Teaser

Community management has been seen since the 1990s as the key to ensuring clean water supply in rural villages in low-income countries. Community management approach is 'the idea that communities should operate and maintain their own water supply systems' (Schouten and Moriarty, 2003). The core of the community management model is the Water Point Committee, typically a group of 6 to 10 villagers elected or otherwise delegated by their community to take responsibility for a water point such as a borehole with handpump, a protected spring, or a gravity-fed tap. Its proponents argue that community management is both efficient and empowering, because it places responsibility on water users themselves. However, a growing body of evidence is calling the model into question. This Policy Brief contributes to that debate, drawing on a study conducted in four districts of Malawi and covering 338 water points.

The study tested ten determinants of water point sustainability, and critically examined the way that community management works in practice. It found that technical factors – such as installation quality – are in fact the key determinants of sustainability. Community management itself has only limited positive impact on water point functionality, while generating problematic social side-effects, including erosion of trust and consolidation of existing inequalities. These findings seriously challenge the assumptions that underpin the community management model, and suggest that true sustainability requires greater professionalization of water point installation and management, and on-going public investment in recurrent costs.

Keywords

Water, Malawi, sustainability, community management, Africa.

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Introduction

Received wisdom suggests that community management is an important component of sustainable water supply in rural areas and small towns. Despite the growing shift in emphasis "from system to service" (Schouten and Moriarty 2003, Lockwood and Smits 2011) and on "community management plus", in reality the basic community management model remains standard practice in Malawi, as in many other low-income countries. In this model, agencies (NGOs, or sometimes governments) install a water point, then hand over full responsibility to a committee of users. District Water Offices are supposed to provide post-construction support, but have limited capacity and receive very little funding (Lockwood and Kang 2012).

The arguments for community management derive from the broader literature on participation, and centre on two claims (Nelson and Wright 1995; Mohan and Stokke 2000). First, that it is efficient: users know immediately when a breakdown has occurred, have a clear interest in fixing it, and (thanks to initial training and regular savings) have both the necessary skills and the money readily available.

Second, that it is empowering: users gain new skills and capacities for collective action via the introduced institution of the democratically-elected, gender-balanced, locally-accountable water point committee.

If community management indeed works, it should work well in Malawi, which enjoys several advantages: standardisation on the Afridev pump type; relatively high population density; good roads; accessible water table; and absence of armed conflict. Access to safe water in Malawi has indeed increased from 43% in 1990 to 90% in 2015 (WHO/JMP 2016), so it appears that the country is a success story. However, this paper suggests that fundamental problems with community management call into question the sustainability of these recent achievements.

Methodology

To answer the research question 'what factors influence water point sustainability, how and why?' a mixed methods study was conducted in four districts in Malawi in 2011-2012. Ninety-six water points in 24 VDCs (group villages) were randomly sampled for in-depth structured surveys, normally three per site: two with users, and one with a 'manager' i.e. a member of the water point committee. A further 242 water points were surveyed in person (totalling 338 water points at which fieldwork was conducted), and basic data was collected from VDC members on the remaining 341 water points in the sampled VDCs, so the study covered 679 water points in total. Statistical testing was conducted on a nationwide database of 50,000 water points, as well as on the primary data, and quantitative and qualitative findings were triangulated. Further details on research design and methods are given in Chowns (2014) and Chowns (2015).

Figure 1: Functioning water point, Mzinda VDC, TA Mbwana Nyambi, Mangochi district, Malawi (20 October 2011)

Part One of the study tested the influence of ten key proximate determinants of sustainability, listed in Figure 4. Part Two examined the 'efficiency' and 'empowerment' assumptions implicit in the underlying community management model.

Figure 3: Location of study districts

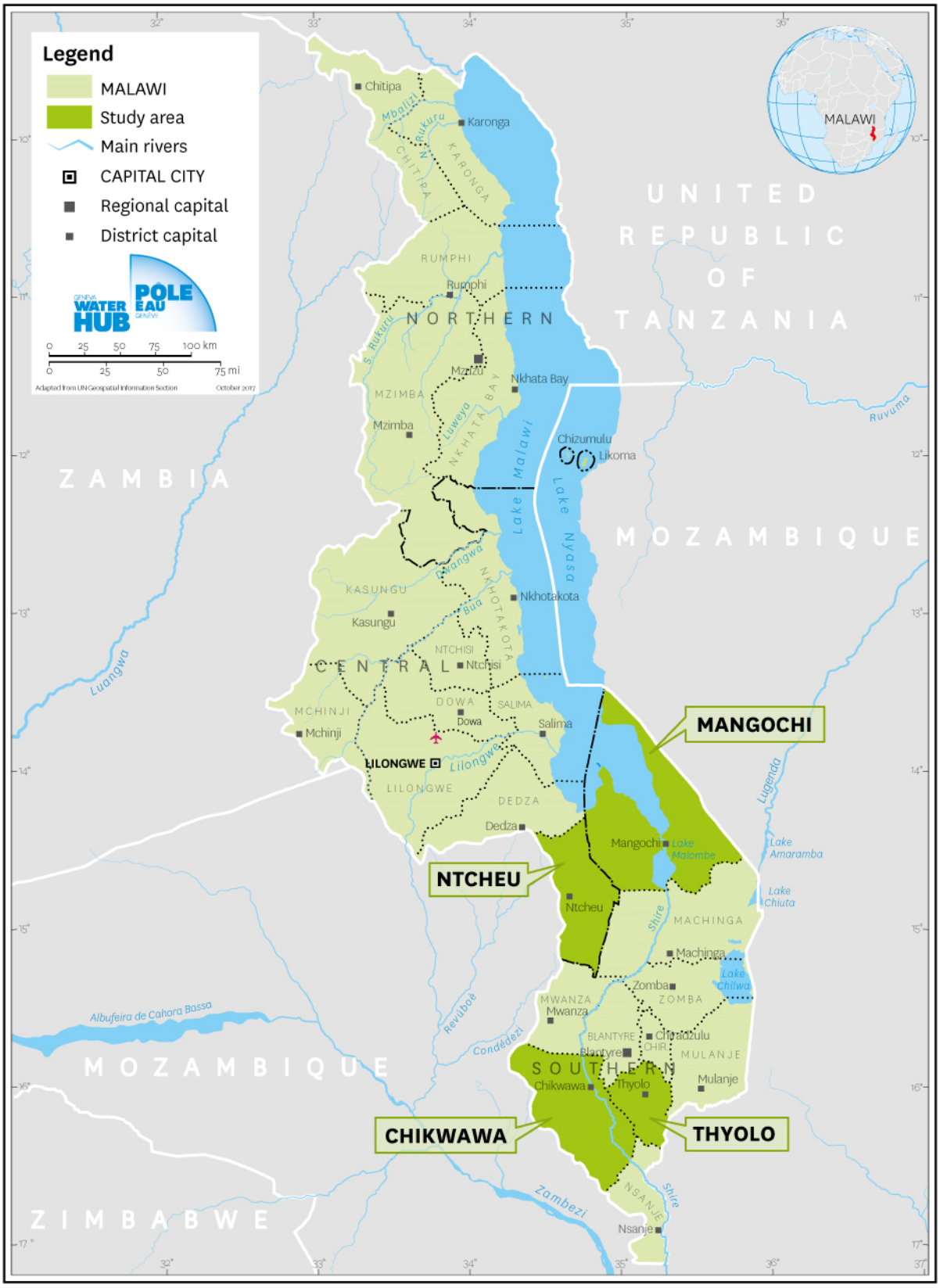

Figure 4: Determinants of water point sustainability – variables tested

Design and installation variables	Post-construction variables
o Type of technology o Quality of installation o User numbers o System age	o Frequency of maintenance o Accessibility of spare parts o Availability of maintenance and repair skills o Availability of funds for maintenance and repair o Availability of external support o Incidence of theft

Results and discussion

Findings regarding the determinants of sustainability are summarised briefly in Table #; for more details see Chowns (2014). Two clear results emerge.

First, technical factors (water point type and installation quality) are both strongly associated with water point sustainability. The logic is clear: if a water point installation is poor quality in the first place, then it will be very difficult to keep it working – no matter how skilled and dedicated the committee. Observations, surveys and interviews suggested wide variation in installation quality, due to factors such as lack of technical skills among installers, allocation of contracts on non-merit basis, and lack of supervision, inspection, or penalties for poor quality work. The findings clearly indicate that paying more attention to technical quality of hardware would have a significant impact on sustainability.

"We were trained but we have no skills."

Manager at water point #495, explaining why they do no maintenance or repairs

Second, community management does not work nearly as well as it is supposed to. The core assumptions of the model are seriously called into question by the findings: preventive maintenance is almost never done; repairs are often slow and sub-standard; and committees are unable to collect and save funds. Committees are generally dormant or defunct, and often have to be reconstituted (amid conflict over finance) when a breakdown occurs, and users struggle to hold committees to account.

"People refuse to contribute because they don't believe the [committee], they think that they use the cash for their families."

Manager #23, explaining why they have no money in the borehole maintenance fund.

These findings clearly call into question both the 'efficiency' and 'empowerment' claims for community management.

"In the past the Treasurer used the money for business"

Manager #48

First, they show in the study area that community management is inefficient; its assumptions regarding maintenance, repairs, and savings are simply not borne out in practice. The 'just in case' financial management model based on regular advance payments into a collective fund is clearly unworkable; cash-strapped poor rural households are (unsurprisingly) unwilling to put money aside into such a fund when there are other more immediate calls on their purses – especially if they do not trust that the money will be safeguarded. Instead, when

"Some people don't contribute because people in the past contributed and the WPC misused the cash"

User #19

"Communities suspect their funds are being embezzled … people don't actually believe that … the people who are entrusted to keep that money will do a fair job".

Local NGO worker #3, explaining why users do not contribute to the water point.

breakdowns occur, communities struggle to scrape together the funds required – a process that may take some time and cause some friction, but is clearly more financially rational for households.

Community management is also inefficient in another sense, since it requires the active involvement of many more people than necessary. In a VDC with, say, ten water points, it is superfluous and expensive to train ten committees of 10-12 people each, when all that is really needed may be one skilled Area Mechanic with a bike, a phone, and (crucially) an effective means of financing his or her work.

Secondly, and perhaps even more worryingly, community management is disempowering.

Users feel disempowered by their inability to hold the committee to account, while committee members feel disempowered by the difficulties they experience in fulfilling their functions. Committees, far from being new arenas in which 'lowers' can challenge 'uppers' (Chambers 1994), are adapted through a process of 'institutional bricolage' (Cleaver 2012) and instead tend to reproduce existing social inequalities. Conflicts over funds tend to undermine trust and erode social capital. Reliance on agencies and local 'big men' to fix problems (rather than calling on state support in the form of the District Water Office) tends to reinforce clientelism and erode the social contract.

"The committee is higher than the community."

User at water point #108, explaining why the users cannot hold the water point committee accountable because its members have higher status than other villagers.

"The committee is there but it is not active because people don't listen to these committee members and they are not respected or recognised … So they just stopped doing anything at this water point."

User #100 at water point #537.

"The Village Head… sometimes he gets the funds and misuses it. He has the powers and controls the [committee]".

Manager #19.

"We are waiting for some organisation to come and give us funds to fix it"

Manager at water point #536, explaining why the community has not attempted to repair it. themselves.

Community management was originally conceived as a 'software' solution to a 'hardware' problem – a means to ensure that technical breakdowns were quickly fixed. But the findings of this study show that in many cases the management model is less sustainable than the hardware of the water point itself.

Recommendations

It would be easy – and wrong – to interpret these problems of community management as a case of 'civil society failure' (Mansuri and Rao 2013). Instead, I suggest it would be more accurate to see this as an example of donor failure and state failure. Community management remains the dominant model because it works better for agencies and governments than for local water users themselves. It enables those with resources – donors and the state – to abdicate responsibility for long-term sustainability of water services, placing this burden instead on unpaid and unsupported citizens. This strategy is short-sighted, because it jeopardises the long-term sustainability of the costly, mostly aid-funded, capital investments. It is also, quite simply, unfair.

This paper therefore makes two key recommendations to agencies and governments involved in rural water supplies:

- First, do more to ensure that all new water point installations meet key quality standards, to reduce the need for expensive repairs and maintenance later on. Mechanisms could include improved inspection or auditing of installations, performance-linked installation contracts, and training of specialised personnel.
- Second, and even more importantly, professionalise water service management, and fund recurrent costs directly – at least in the short to medium term. In practice, this means moving away from the committee model, and instead investing in training a smaller number of Area Mechanics and financing their work directly, via contracts with District Water Offices. This may even be cost-neutral, since there will be significant savings on water point committee training.

Of course, there is still an important place for community participation in water governance. Key roles for users include decision-making about preferred supply options, and monitoring water point performance. But this participation should be encouraged and emergent, not induced and imposed; and should be clearly separated from 'financial participation'. Communities are not required to bear the recurrent costs of other public services such as education or health, so why should they have to do so for water? We know that the public health benefits of safe water

exceed household willingness-to-pay (Null et al 2012), and so user financing will be insufficient; for public health reasons, clean water supply should be subsidised.

The challenge of sustainability is twofold: technical and financial. Currently, the community management financial model undermines technical sustainability, and thus is part of the problem, not the solution. The collective action on which it rests has high costs – in terms of money, time, co-ordination, and conflict – which fall unfairly on those with least resources. If we want to meet Sustainable Development Goal 6 we must admit the limitations of the community management model, and acknowledge that sustainability of rural water supply requires ongoing public investment in recurrent costs.

Figure 5: Derelict water point, Masitimale VDC, TA Kwataine, Ntcheu district (25 July 2012)

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Figure 6: Community members working on a water point, Lihako 1 VDC, TA Chakhumbira, Ntcheu District (19 July 2011)

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