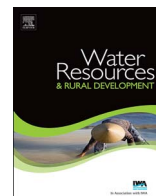


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# Water resources and rural development

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## Can ‘functionality’ save the community management model of rural water supply?



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### ABSTRACT

As attention increasingly turns to the sustainability of rural water supplies - and not simply overall levels of coverage or access - water point functionality has become a core concern for development practitioners and national governments, especially in Sub-Saharan Africa. Within the long-enduring Community-Based Management (CBM) model this has resulted in increased scrutiny of the “functionality” of the local water point committee (WPC) or similar community management organisation. This paper reviews the literature written from both practice-focused and critical-academic perspectives and identifies three areas that pose challenges to our understanding of water point functionality as it relates to CBM. These concern the relative neglect of (i) the local institutional and socio-economic landscape, (ii) broader governance processes and power dynamics, and (iii) the socio-technical interface. By examining these three areas, the paper engages with the specific issue of WPC functionality, whilst also considering broader issues relating to the framing of problems in development and the methodological and disciplinary ways that these are addressed. Furthermore, by focusing on community management of rural water points, the paper lays the ground for a more substantial critique of the continuing persistence of the CBM model as a central development strategy.

### 1. Introduction

Community-Based Management (CBM) has proven an enduring strategy for operationalising mainstream participatory development in the rural water supply sector. In its present form, this participatory agenda took hold in the 1980s – the first UN ‘Water Decade’ - in the face of general disillusionment with top-down and supply-driven approaches (Garn, 1997; Sara and Katz, 1997). Added impetus was then given to the CBM model at the start of the 1990s where community management, coupled with a strong focus on user financial contributions, became a cornerstone of first the 1990 New Delhi Statement (UN, 1990) and then, two years later, the influential Dublin Statement on Water and Sustainable Development (UN, 1992). This drive towards public participation and decision-making at the local level was echoed more broadly in Agenda 21, a core output of the 1992 ‘Earth Summit’ in Rio de Janeiro. As a result of these developments, CBM became a central tenet of major policy and practitioner discourses on rural water supply (Nicol et al., 2012; Schouten and Moriarty, 2003).

With the advent of the Millennium Development Goals (UN, 2000), added emphasis was placed on extending the provision of improved water sources to the many millions of people around the world who lacked them. Despite the use of the term ‘sustainable’ within Target 7C of the MDGs, which sought to ‘halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation’, the development efforts that followed this mandate were strongly oriented towards attaining

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increased levels of coverage. In relative terms securing the longer term sustainability of supplies took second place to achieving the targets for coverage (Chowns, 2014; Glotzbach et al., 2013).

It could be argued that part of the implicit appeal of the CBM concept for key development players (international donors, development organisations, and governments) is that it allows them to highlight a concern for sustainability whilst at the same time distancing themselves from much of the responsibility for delivering it: in the case of rural water supply, to ‘shrug off responsibility once the pumps are installed’, as Colin (1999: 13) has put it. Instead, it is the community, and local level organisations, who are charged with ensuring that this criterion is met (Harvey and Reed, 2007; Mansuri and Rao, 2013). However, there has been growing concern about the high failure rates of newly installed water points, often within the first few years of construction (Duti, 2012; RWSN, 2009).

The concept of ‘functionality’ has emerged as a central motif within current development efforts to provide people with a safe and affordable water supply, now under the auspices of the Sustainable Development Goals (UN, 2015a). It has notably achieved currency in Sub-Saharan Africa (SSA) in relation to securing the sustainability of hand-pumped water supply (Lockwood and Smits, 2011). The need for improved functionality in this region is great due to a perceived deficit in government capacity to deliver and maintain services, and disappointing results of the MDG initiatives.<sup>1</sup> This contrasts with the picture globally where the target was surpassed in 2010, five years ahead of schedule (UN, 2015b).

As CBM is intended to create a relationship between the water point (WP) and the user population, it is not only the functionality of the physical infrastructure (the pumps and pipes) that is of concern, but also the functionality of the community organisation charged with managing it (Bey et al., 2014; RWSN, 2014; Welle and Williams, 2014; Whittington et al., 2009). In rural SSA, as elsewhere, this is typically the water point committee<sup>2</sup> (WPC). Thus the functionality of the WP is often deemed to be dependent on the functionality of the WPC and significant efforts are directed towards identifying ways in which this could be strengthened. As we discuss below, the literature has not yet produced one dominant definition of WPC functionality, but it broadly concerns the identification of operational components (such as financing and cost recovery, operation and maintenance) which contribute to longer term sustainability.

This paper reviews the literature written from both practice-focused and critical-academic perspectives and identifies three areas which pose challenges to our understanding of water point functionality as it relates to CBM. The bulk of the literature reviewed, though not all of it, focuses on SSA for reasons outlined above. Furthermore, the scope of the review relates specifically to rural water supply from handpump-equipped boreholes and wells, and not from other sources such as gravity-fed piped supplies and springs or boreholes equipped with diesel, electric, or solar pumps.

Three areas of concern are highlighted by our review:

- 1) A great deal of attention is devoted to the form and functioning of WPCs, whilst there is too little understanding of the local socio-economic milieu, and plural institutional landscape in which they are embedded.
- 2) There is a tendency to consider the functioning of WPCs as a techno-managerial exercise which can be divorced from power relations spanning scales of organisation. Even though development donors and practitioners are increasingly aware of the need to understand how broader governance processes and power dynamics influence the ability of local WPCs to function as intended, these studies are typically unsatisfactory in their conceptualisation and implementation, for reasons discussed below.
- 3) There is a dearth of approaches which address the socio-technical interface of rural WP supply – the ‘hardware’ and ‘software’ components of functionality are often treated separately rather than as interrelated – and more research is needed to better understand the ways in which each one affects the relative functioning of the other.

By examining these three areas, this paper engages with the specific issue of WPC functionality, whilst also considering broader concerns relating to the framing of problems in development and the methodological and disciplinary ways that these are addressed. Furthermore, by focusing on community management of rural WPs, the paper lays the ground for a more substantial critique of the continuing persistence of the CBM model as a central development strategy.

In what follows we address each of the three areas, drawing variously upon both the practice-focused and critical-academic literature.<sup>3</sup> Before doing this, we first briefly examine the concept of functionality as it has come to be applied in the development of rural water supply and in particular how it relates to the WPC. We conclude by outlining the methodological implications of the findings of this review, bringing the various strands of the review together to argue an agenda for future research.

<sup>1</sup> Even in countries where the MDG targets were officially met, such as Malawi, there is considerable skepticism about the ongoing viability of the services provided (Chowns, 2014; Glotzbach et al., 2013).

<sup>2</sup> Other terms are commonly in use – e.g. Water User Group, Water User Association, WASHCO, COWSO – but for simplicity we use the term water point committee (WPC) in this paper to refer generically to the community organisation for managing the water point.

<sup>3</sup> In making a distinction between these two bodies of literature, we draw upon Burawoy’s (Burawoy, 2005) classification of types of sociological knowledge production. Thus a key difference between the two categories we use in this paper is that critical-academic knowledge is characteristically reflexive, placing a strong focus on the examination of taken-for-granted assumptions and values. In contrast, the practice-focused literature tends to be far more instrumental, involving “the expansion of research programs that are based on certain assumptions, questions, methodologies and theories that advance through solving external anomalies or resolving internal contradictions” (Burawoy, 2005: 139-140). It should be noted, however, that these are idealised categories employed for the sake of analysis and explanation. In reality, the boundaries tend to be more blurred. What’s more, we are talking here of a distinction between two forms of knowledge – whether generated in an academic institution or within the NGO sector – and not between ‘academics’ and ‘practitioners’ per se.

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