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The paradox of cost recovery in heterogeneous municipal water supply systems: Ensuring inclusiveness or exacerbating inequalities?

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ABSTRACT

Over the past decades 'water for all' has become a dominant development mantra, illustrated by global strategies like the Millennium Development Goals (2000–2015) and the Sustainable Development Goals (2015–2030). Cost-recovering tariffs have been placed at the core of these strategies on the grounds that they warrant more inclusive water services by enhancing utilities' performance, ensuring efficient demand management and empowering consumers. This paper questions these assumptions for cities in sub-Saharan Africa, where inclusive urban water services are to be achieved in a context of extreme socio-economic inequalities and the water utility provides water through heterogeneous service modalities. Drawing from empirical evidence from Maputo and Lilongwe, we conclude that in this context the implementation of full cost recovery principles may exacerbate rather than reduce inequalities in access to drinking water. Water utilities tend to outsource service provision to lower income areas to small-scale or "social" private sector. These providers apply full–cost recovery principles more rigorously, as they cannot operate in a deficit. Moreover, they are unable to (cross)-subsidize and they do not enjoy economies of scale. As a result, wealthier neighbourhoods, where the water utility provides services directly, often access water at subsidised rates, while in low income areas, where service provision is outsourced, people access lower quality services at a higher price.

1. Introduction

1.1. The neoliberal turn and the institutionalization of the cost recovery principle

In 2003, the controversial report of the World Panel on the Financing of Water Infrastructure stated that "the dream of pure water for all is within the reach of humanity" (Camdessus Report, 2003:v). The report contends that achieving this 'dream' requires "the various parties [to] accept to change their approach, in some cases radically" (Camdessus Report, 2003). The report identifies the refusal to implement cost-recovering tariffs as the main cause for the failure of achieving universal access to water services. While recognising that in some cases, especially in rural areas, cost recovery is unfeasible, the report considers closing the revenue cycle as a crucial goal. Where subsidies are being implemented they should be designed and planned in a way to ensure the "transition to higher tariffs" (2003:19). The sentiments of the Camdessus Report are shared by a host of international financing agencies and donors. The World Water Council's vision entails the "move to full-cost pricing of water services for all human uses" as one of its key messages (World Water Council, 2000:2). Similarly, the World Bank places cost-recovery at the core of water and sanitation sector reforms (World Bank, 2004) and, more recently, the African Development Bank (2010:vi) indicated that a "robust cost-recovery system" is necessary "to achieve financial sustainability of water sector projects and programmes".

In the water services sector, cost recovery principles have been pursued through different strategies. The privatisation decade (1993–2003) signalled a first turning point, during which many countries in sub-Saharan Africa, including Senegal (1995) Uganda (1998–2001), Mozambique (1999), Namibia (2000), Zambia (2001), Kenya (2002) and Tanzania (2002), implemented reforms promoting private sector participation, full cost recovery and

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consumer choice (Bakker, 2007; Rusca & Schwartz, 2012a). More recently, the commercialisation of public water utilities, which entails running a public service provider according to business principles by, among others, prioritising efficiency and cost-recovery, became more prominent (Bakker, 2003; Herrera & Post, 2014; Smith & Hanson, 2003). The past decade has also witnessed the reappraisal of small-scale water providers, mostly celebrated for their 'private-sector' characteristics, including their ability to recover costs (Kjellén & McGranahan, 2006; Njiru, 2004). In this context, SSIPs are increasingly regarded as an alternative service modality that can effectively complement the efforts of the formal, centralised water provider.

These reforms have institutionalised full cost recovery to the extent that it is now an undisputable principle and many development actors see subsidies as "an anathema" and an unsurmountable obstacle to financial sustainability of water utilities (Mitlin, 2008:38). The degree to which cost-recovery has become an important narrative in the water supply and sanitation sector is most aptly illustrated by the fact that also NGO-led grassroots development projects now incorporate cost-recovery in their design (Jaglin, 2002; Rusca & Schwartz, 2012b).

1.2. Water services and inclusive development in the global South

Recently the term inclusive development gained prominence in the international development establishment. It emerged from concerns about rapidly growing inequalities and exclusion from development, whose effects "are staggering, deepening inequality across the world" (UNDP, 2015). In the context of water supply, the operationalization of inclusive development entails the design of strategies that ensure improved access to basic services to lower income households, whilst preserving the status of the ecosystem on which the poor depend (Gupta, Pouw, & Ros-Tonen, 2015). As full cost recovery is argued to ensure more efficient services, improve utility performance, and thus, lead to service expansion and universal access, this measure is assumed to warrant more inclusive water services.

In this paper we question this assumption for cities in the global South, where inclusive urban water services are to be achieved in a context of extreme inequalities and heterogeneous water supply systems. In most cities in the global South the water utility provides services through different service modalities (Alda-Vidal, Kooy, & Rusca, 2017; Boakye–Ansah, Ferrero, Rusca, & van der Zaag, 2016; Nganyanyuka, Martinez, Wesselink, Lungo, & Georgiadou, 2014; Hossain, 2011). Formal service provision often comprises different technologies, water sources and organizational structures, a variety of financing arrangements and pricing regimes, and differentiated service levels in terms of water quality, water quantity and the convenience of accessing water. In this context, we argue, implementation of full cost-recovery principles may exacerbate rather than reduce inequalities.

These arguments are developed in two ways. First, we present the debate on full cost recovery through a literature-based discussion. Secondly, we illustrate our arguments by presenting the cases of Lilongwe, Malawi and Maputo, Mozambique, where utilities provide water through different service modalities. The research for developing the two cases was done between 2014 and 2016. Data were collected through semi-structured interviews with key stakeholders, including donors, non-governmental organisations, water utility representatives, small-scale water providers and consumers in Lilongwe and Maputo. Further, a household survey ($n = 495$) was done in both high and low-income areas of Lilongwe. We compare the different service modalities *within* each city by looking at technologies, water sources and organizational structures, financing arrangements and service levels. Through this comparative analysis we show that although the full cost recovery principle is promoted as a cross-cutting approach to ensure sustainable services, in practice it is unevenly implemented in the different formal service modalities. Paradoxically, it is rigorously implemented in service modalities catering to the urban poor, whilst prices in higher income areas often incorporate subsidies. Water utilities outsource service provision to the lower income areas to private operators or community-based organizations. These organisations apply the principle of full cost recovery more rigorously for different reasons. First, these intermediary organizations cater to a largely low-income population and, thus, their ability to (cross)-subsidize services is minimal if not absent. Secondly, these small-scale businesses do not enjoy scale economies. Last, both social and small-scale private sector run their operations like a business and, thus, they are not in the position to operate in deficit.

2. The case for full cost recovery

The need to implement full cost recovery has been widely promoted in both policy and academic circles. The argument for cost-recovering tariffs is mainly grounded on three interrelated narratives. The business administrative narrative takes the utility as its points of departure. The incentivising argument places specific focus on the environment and the availability and quality of water resources. The third narrative relates to cost-recovery as a way for consumers to meet their responsibility of paying for services.

2.1. The business administrative case for cost recovery

The first narrative relates to the functioning and performance of public utilities. Underlying this perspective, is a particular problem frame in which under-pricing of services leads to low operating performance and underinvestment in infrastructure (Kessides, 2004). Pricing policies that fail to recover costs are considered to undermine the financial viability of the water utility, resulting in poor service provisioning and, in turn, increased inequalities (Kessides, 2004). Further, cost recovering tariffs are viewed as a necessity for ensuring a utility's ability to repay loans for capital investments (Baeitti, Ginneken, & van Kingdom, 2006). For the World Bank (1998:44 in McDonald, 2002) it is simply "a matter of good public fiscal practice".

Although the primary focus is on the utility, the business administrative argument for cost recovery is often linked to inclusion of the poor. Full cost recovery is viewed as a prerequisite to ensure network expansion and, thus, access to water for lower income residents excluded from formal service provision (Wittington, 2003). Franceys and Gerlach (2008;x) argue that the inability to set cost recovering tariffs, often under the guise of achieving social objectives, constrains water utilities' capacity to expand services to low-income areas. This sentiment is echoed by Berg and Mugisha (2010) who contend for the case of Kampala that the combination of social tariffs, low consumption rates and bill collection risks in low income areas, make network expansion financially unattractive for Uganda's National Water Sewerage Corporation. Similarly, the United Nation's Global Water Supply and Sanitation Assessment 2000 Report ranks inadequate cost recovery at the top of the sector constraints, together with logistics and inadequate operation and maintenance. The Report argues that existing funds are only sufficient to sustain operation and maintenance investments, while expansion is out of reach. The result of setting 'inappropriate' tariffs is that poor urban dwellers end up paying more for water purchased from 'unreliable and unsafe' private water providers (Collignon & Vézina, 2000; Franceys & Gerlach, 2008; Goreses & Franceys, 2008; Rogers, de Silva, &

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