Review Paper

Unravelling pro-poor water services: what does it mean and why is it so popular?

Akosua Sarpong Boakye-Ansah, Klaas Schwartz and Margreet Zwarteveen

ABSTRACT

In dealing with the challenge of providing water services to urban low-income areas, the concept of 'pro-poor water services' is popular in the policy literature. Based on an extensive literature review, this article examines the relation between the implementation of pro-poor water services and the equity of access. Pro-poor water services comprise a set of technological, financial and organisational measures employed by utilities in developing countries to improve service provision to low-income areas. In practice, the combination of low-cost technologies which limit consumption, measures to enforce payment for services, and the use of community-based and private suppliers, means that pro-poor service often entails the utility delegating part of the responsibilities, costs and risks of providing services to those living in low-income areas. Indeed, it is by partially withdrawing from these areas that utilities succeed in reconciling the objective of improving service delivery with the realisation of their commercial objectives. Our analysis shows that in implementing pro-poor service delivery strategies, there is a risk that concerns about cost recovery and risk reduction on the part of the utility prevail over those about the quantity, quality and affordability of the service for the poor.

Key words | low-income areas, pro-poor water services, service differentiation, urban poor, water utility

Akosua Sarpong Boakye-Ansah (corresponding author)
Klaas Schwartz
Margreet Zwarteveen
Department of Integrated Water Systems and Governance,
IHE-Delft Institute for Water Education,
Westvest 7, 2611AX Delft,
The Netherlands
and
Amsterdam Institute for Social Science Research,
University of Amsterdam,
Nieuwe Achtergracht 166, 1018 WV, Amsterdam,
The Netherlands
E-mail: *a.boakyeansah@un-ihe.org*

INTRODUCTION

Past efforts of development agencies and governments to improve access to potable water have paid off: 96% of the world's urban populations now have access to improved water sources (WHO & UNICEF 2015). Not all urban dwellers, however, benefit from this improvement. Most notably, in low-income areas of cities in Sub-Saharan Africa, only 64% of the population have access to improved water sources and a mere 5% access water through sources located on their residential premises. Viewed from the perspective of the service provider, the task of providing water services to low-income areas is challenging. A first major challenge stems from the socio-economic and legal characteristics of the people living in these areas. Often employed in the so-called informal sector, they not only have low income levels, but their incomes also fluctuate strongly depending on the availability of work. Because of low and fluctuating income levels, members of poor urban households often find it difficult to pay monthly water bills (Berg & Mugisha 2010, p. 592). The fact that the urban poor often do not have formal land tenure for their dwellings is an additional

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reason why water utilities are either reluctant or legally unable to extend networked infrastructures to their houses.

A second challenge utilities face when attempting to provide water service to the poor relates to how low-income areas grow and evolve. With an urban growth rate of 4.58% and a growth rate of 4.53% for low-income areas, in Sub-Saharan Africa, 'slum growth is virtually synonymous with urbanization' (UN-Habitat 2006, p. 22). African informal settlements house an estimated 50–60% of the urban population (Cross & Morel 2005, p. 52). Yet, most of this growth happens spontaneously and in unregulated ways, which makes it challenging to plan, invest and develop infrastructures for these informal settlements. This combination of reasons explains why water utilities have come to associate low-income areas with high rates of illegal connections and low rates of bill payment (Heymans *et al.* 2014, p. 3). A proliferation of illegal connections, in turn, produces high levels of unaccounted-for water (Castro & Morel 2008, p. 291). Furthermore, the relatively low water consumption rates among consumers in these areas make service provisioning commercially unattractive, while the recovery of costs is often cumbersome. Indeed, most utility managers do not view 'low-income areas as a "business opportunity", but rather a burden or a risk' (Heymans *et al.* 2014, p. 3). Water utilities prefer to focus on areas which are less risky and that allow for easier and more secure cost recovery: middle- and high-income areas where consumption rates are (expected to be) higher (Castro & Morel 2008).

In attempts to reduce risks while sustaining commercial viability, utilities are resorting to a range of distinct service delivery strategies for low-income areas (Water and Sanitation for the Urban Poor (WSUP) 2015, p. 5), often referred to with the term 'pro-poor' water services. In itself, the concept of pro-poor has been around for a few decades (Komives 1999). Yet, it is relatively recent that donors and government organisations have started to use the term for differentiating water services provision between low- and high-income areas. Articles and policy documents speak of 'pro-poor strategies' (Cross & Morel 2005; Berg & Mugisha 2010), 'pro-poor units' (Water and Sanitation Programme (WSP) 2009), 'pro-poor water service delivery' (Ryan & Adank 2010), 'pro-poor technologies' (Paterson *et al.* 2007), 'pro-poor water provision' (Appelblad Fredby & Nilsson 2013), 'pro-poor WASH Governance' (UN-Habitat 2016), 'pro-poor water governance' (Connors 2005), 'pro-poor utilities' (WSP 2009), and even 'pro-poor private participation' (MacGrannahan & Sattherwaite 2006). In general, these documents employ the term pro-poor to refer to a form of service provision specifically designed to alleviate the barriers that water consumers in low-income areas face when accessing water services (Mason *et al.* 2016): prohibitive costs, the physical location of infrastructure and the regulation of services. Many utilities in the so-called Global South have established dedicated 'pro-poor units' or departments, which have the specific responsibility to provide services to low-income areas (WSP 2009). Funding for these units or departments may come from different sources and may be organised differently from that of 'normal' service provision. Underlying the establishment of pro-poor units is the conviction that serving low-income areas requires distinct strategies and a targeted commitment to implementing these strategies (WSUP 2015, p. 7).

In this paper, we shed light on the concept of pro-poor services in urban water provisioning, focusing in particular on how the implementation of service differentiation entails changes in the equity of access. Our interest in this emerges from a wider discussion in the water management and governance literature on the importance and meaning of equity in domestic water provision (see, for instance, Goff & Crow 2014) – a discussion that is importantly prompted by concern about how the so-called neo-liberal turn in water governance prioritises profits over people (Bakker 2002), but was also energised by the explicit adoption by international agencies like the WHO/UNICEF Joint Monitoring Program (JMP) (WHO & UNICEF 2011) of equity as a major goal.

We use an extensive review of the relevant literature to, first of all, illuminate how the concept of 'pro-poor services' is understood and used within water utilities. Our review shows that use of the concept involves and is part of a broader shift in thinking about how responsibilities, costs and risks of water services provision should be organised: from one of Modern Infrastructural Ideal (MII) to an acceptance of the co-existence of many differentiated forms of service delivery. We then go on to show how this differentiation also entails a change in thinking about and dealing with equity, as it entails creating and accepting differences

in access to services between areas and people. One relatively straightforward way of defining equitable access that serves the purpose of this article is: 'access being similar for all people irrespective of where they live, whether they belong to vulnerable or marginalized groups, and to the associated costs being affordable for all users' (UNECE & WHO 2013).

Our analysis reveals that there is a mismatch between the argumentation to promote pro-poor services and the reasons that explain its popularity: whereas pro-poor services are promoted to better tailor services to the needs of the urban poor, the enthusiasm of utilities to embrace the concept mainly stems from how it allows them to demarcate 'the poor' (or low-income areas) as a distinct customer category. In developing this argument, the article first illustrated how the idea of pro-poor services marks a *de facto* shift away from the MII. The article then identifies three dimensions of pro-poor services provisioning (the organisation, the technology and the financing) and explains how these dimensions can be viewed and are presented as 'pro-poor'. The article continues with a critical examination of the practical implementation of 'pro-poor services', discussing this against idea(l)s of equity.

FROM MII TO PRO-POOR SERVICES

For a large part of the 20th century, the MII (see Graham & Marvin 2001) served as the reference against which actual developments in the water services sectors in both developed and developing countries were assessed. The MII has it that services are to be provided through 'public or private monopolies, for singular and standardised technological grids across territories [and] the "binding" of cities into supposedly coherent cities' (Graham & Marvin 2001, p. 91). The MII thus implies having a single water operator extend services across the city territory through a standardised and centralised network, with in-house connections for all consumers – irrespective of income or other differences. When following this ideal, serving low-income areas basically means extending the network into these areas. The provider can finance the provision of services to poorer clients either through cross-subsidies and differentiated tariffs – with middle- and high-income consumers subsidising the costs for low-income consumers – or by complementing funds from a nation's budget (Jaglin 2008, p. 1905). For a long time, the MII continued to implicitly serve as the norm against which actual water service provision was measured and assessed, even when in many cities in developing countries, it provided a very inaccurate metaphor to describe and make sense of actual water provisioning realities. In recognition of this, Bakker (2003) proposed replacing the metaphor and idea of MII to describe urban water services in developing countries with the metaphor of as '"archipelagos": spatially separated but linked "islands" of networked supply in the urban fabric' (see also Schwartz *et al.* 2015; Furlong & Kooy 2017).

Also, water sector professionals are increasingly realising that attaining the MII is unrealistic. This is why they have started to call for a new paradigm of water services provision (Mara & Alabaster 2008, p. 120), one in which the MII idea and ideal that access and affordability to water should be similar to all customers or clients is being replaced with that of service differentiation (see Jaglin 2008, p. 1905). Service differentiation entails explicitly distinguishing between different water service strategies and between different customers or clients. This happens by employing different technologies, adopting variations in the ways in which service provision is organised and by differentiating funding and cost-recovery mechanisms. The rationale for service differentiation is that water requirements and conditions differ from one neighbourhood to the next. Utilities adopt it because of the recognition that they are not equipped to provide the same conventional services to consumers whose water needs are different, while their willingness and ability to pay for services may also differ (Njiru *et al.* 2001, p. 277; see also Mara & Alabaster 2008). It 'reflect(s) a pragmatic move towards accommodating social and spatial disparities in a polarized city' (Jaglin 2008, p. 1898).

PRO-POOR SERVICES: APPROPRIATE TECHNOLOGY, FINANCE AND ORGANISATION

As noted, the idea of pro-poor services rests on differentiating services across spaces and people. More specifically, it signals a set of mechanisms and methods to differentiate services to those consumers who are characterised as poor. In

practice, three ways of doing this can be distinguished. First, the technologies used for providing services are adapted to better suit the needs and abilities of the urban poor (appropriate technology). Secondly, the management and organisation of service delivery are adapted from one single provider that covers the whole service delivery and process to multiple, small-scale providers who receive bulk water from the utility. Thirdly, the combination of different technologies and a distinct organisation of service delivery are funded through a separate financial regime, one that caters to the affordability of the service for low-income households. These three dimensions are strongly interlinked. Below we discuss each of them in detail.

Appropriate technology

The central tenet of appropriate technology is that there needs to be a fit between the technology used for providing services and the users of those services. The concept was first coined and promoted by Schumacher (1973) when he used the term 'intermediate technology' to describe a technology that is 'vastly superior to the primitive technology of bygone ages, but at the same time much simpler, cheaper and freer than the super-technologies of the rich'. In water supply terms, conventional centralised networks with in-house connections can be seen to represent the 'super-technologies of the rich': these are deemed too expensive or difficult to operate for poor consumers. What, then, constitutes a technology that is thought to be (more) appropriate or suitable for users in low-income areas? According to the literature, the first and probably most important characteristic of pro-poor technologies is that they should be affordable: those with low(er) incomes should be able to cover the costs of investment, operation and use (Mara 2003, p. 453). Interestingly, in water provision, the affordability argument seems to apply more to the utility than to the consumer. The construction or extension of conventional centralised networks in or to low-income areas is often an expensive endeavour for utilities: the capital costs involved are high, especially when these areas are geographically remote. Especially when they themselves are responsible for recovering the costs of investment, utilities are hesitant to make such an investment, also because chances of recovering these costs here are much lower than elsewhere. The use of low-cost technologies thus allows utilities to provide services to low-income areas with lower commercial risks (Kayaga & Franceys 2007, p. 277).

A second important characteristic to make a technology suitable or appropriate for low-income areas has to do with matching it to the distinct socio-spatial characteristics of these areas: high population densities and unplanned growth. Here again, the challenges faced by utilities appear more prominent than those faced by poor consumers (Criqui 2015, p. 95; see also Kayaga & Franceys 2007). The Water Utility Partnership (WUP) (2003), for instance, refers to the haphazard layout and the difficult geographic and environmental conditions that characterise low-income areas. Such conditions require improving the flexibility of the infrastructure for water provision (Gulyani *et al.* 2005).

A third characteristic of appropriate technologies that is often mentioned focuses on the requirements of (responsibilities for) operation and the maintenance of technology. Where conventional networked infrastructures tend to rely on highly trained utility staff to operate and maintain the network, so-called appropriate technologies often entail a delegation of operation and maintenance responsibilities to local users. This means that technologies need to be easier to operate and maintain: the same skills and expertise – but also the same resources and support – cannot be assumed to exist among inhabitants of low-income areas (Hunter *et al.* 2010). The involvement of users in the operation and maintenance of technologies (Solo *et al.* 1993, p. 6) has two dimensions. First of all, user involvement requires that the technology is socio-culturally acceptable to users (Mara 2003) and secondly, the involvement of users requires the technology to fit with the available capacities within low-income areas.

A fourth characteristic links the technology to the amount of water consumed, which is assumed to be lower in low-income areas. This is so mainly because the ease of accessing water is lower as compared to conventional in-house connections, whereas the greater distance between the consumer and the water source (kiosk or standpipe) also often reduces consumption rates (Gleick 1996). Again, this relatively low per capita consumption may also be 'appropriate' for the utility. First, water utilities may not have enough water to supply low-income communities

with similar amounts of water as other ('normal') consumers. Indeed, in many Sub-Saharan countries, water rationing is being implemented as a measure to deal with limited availabilities. In countries like Kenya (Hailu *et al.* 2011) and cities like Lilongwe (Alda-Vidal *et al.* 2018) and Accra (Stoler *et al.* 2013), water utilities deal with this by resorting to rationing schemes. If consumption rates in low-income areas would equal those of users connected to the conventional network in the middle- and high-end areas in cities, the water utility would have even less water to distribute among all consumers. Hence, making use of appropriate technologies allows the water utility to expand services to low-income areas without compromising service delivery to areas already served through conventional networks (Ledant 2013; Boakye-Ansah *et al.* 2016; Alda-Vidal *et al.* 2018; Rusca *et al.* 2017; Tiwale *et al.* 2018). Lower consumption rates may also be convenient in view of the more limited ability of users in low-income areas to pay for services (Mara 2003; Berg & Mugisha 2010). We discuss this in more detail in the next section.

In summary, appropriate technologies are considered 'appropriate' as they require less investment cost, match better with assumed preferences and capacities of poor customers (or residents of low-income areas), are suitable for the topographic and environmental conditions of low-income areas and allow the utility to extend services without compromising services to other areas and customers. While embraced by many utilities, the idea of servicing the poor through so-called appropriate technologies is not without criticisms. One important source of critique is that appropriate technologies create distinctions between more and less deserving customers – with appropriate technologies providing a lower level of service to those in the latter category. The water needs of poor customers or inhabitants of low-income areas are not very different from those of wealthier people, or those residing in better-connected parts of the city. A study of service provisioning in low-income urban areas in Kenya, for instance, found that those consumers who were provided water through water kiosks were also less satisfied with water services (Gulyani *et al.* 2005). That the consumers are 'forced to rely on them' does not mean that they accept them as satisfactory, or would not be interested in the water provisioning options available to other citizens (Gulyani *et al.* 2005, p. 1262). This study questions how 'demand-responsive' and equitable services provided through so-called appropriate technologies really are. A second criticism concerns the low levels of consumption associated with appropriate technologies, as well as with the quality of the water provided. Examples from water kiosks in Lilongwe, Malawi, show that clients of kiosks only consume 14 litres per capita per day (Hadzovic 2014). A study on consumption from standpipes in Ghana even measured daily water use of only 3 litres per capita (Adank & Tuffour 2013). In both places, these consumption levels are far removed from the 50 litres per capita per day that the World Health Organization recommends. Besides the quantity of water, the quality of water provided at these water points has also been questioned. A study on the quality of water collected at kiosks in Lilongwe, Malawi found that the water that consumers finally use is contaminated when they have to wait in queues with their vessels and from carrying the filled vessels over usually long distances to their homes. The quality deteriorates even further when the water is stored for future use (Boakye-Ansah *et al.* 2016; Rusca *et al.* 2017).

Pro-poor finance

From the perspective of the utility, doubts about the ability of inhabitants of low-income areas to pay for water services form one of the main challenges for service expansion to low-income areas. As highlighted in the introduction, the urban poor often struggle to pay connection fees and water bills, as their incomes are low and irregular. This is why utilities frequently associate the provisioning of water to low-income communities with high levels of non-payment (Almansi *et al.* 2010). Payment revolves around two types of costs, the connection fee and the monthly water bill. Connection fees concern the costs of labour, piping materials, the water meter and other connection expenses. The normal costs of connection to the conventional network are usually unaffordable for consumers in low-income areas, who often have irregular incomes and as such struggle to pay the relatively high lump-sum connection fee (Jimenez-Redal *et al.* 2014, p. 23). MacIntosh (2003, p. 79) notices the high connection fee (often over US$100) as one of the main reasons that the poor are not connected to piped water. Franceys (2005, p. 211) even suggests that utilities may purposively maintain connection fees so high so as to reduce demand, especially when water availability is

a problem. In terms of pro-poor water services, a variety of (combined) measures has been proposed to reduce the burden of the connection fee. First of all, some advocate for the use of micro-credit facilities as a way of allowing low-income households to access funds to cover the connection fee. The second measure concerns the amortisation of connection fees over several years, allowing the lump-sum fee to be spread out over time. A third measure concerns (partly) replacing the cash fee with an in-kind contribution from the consumer (Franceys 2005), by asking the consumer to contribute to the labour needed for making the actual connection (Almansi *et al.* 2010).

Once a connection is established, however, the periodic costs of the water bill form another challenge for low-income households. A combination of an overall lower ability to pay with fluctuating income levels makes it difficult for low-income households to pay for monthly water bills (Njiru *et al.* 2001; Mara 2003; Berg & Mugisha 2010). This means that such households face a real danger of being cut off from water supply due to non-payment of bills.

Under the umbrella of pro-poor water services, two ways are proposed to address the burden of volumetric charges for water. The first concerns the use of subsidies to establish a 'social tariff' for low-income households connected to the conventional network. Such social tariffs may, for instance, take the form of progressive or increasing block tariffs (IBTs): providing water at different charges, depending on the amount of water consumed (in relation to defined blocks). Tariffs charged with IBTs increase as consumption moves from a lower consumption block to a higher consumption block. IBTs have become the standard in developing countries (Boland & Whittington 1998). Perhaps, the most famous example concerns the life-line tariff implemented in South Africa, which provides 6 m^3 of water per month for free (Peters & Oldfield 2005; Narsiah 2010; Renouf 2016).

The second way of ensuring that consumers are able to pay the volumetric charges for water is by effectively reducing consumption rates through the use of appropriate technologies. As noted, the 'appropriate technologies' used for supplying water to low-income areas reduce consumption levels (and thus require lower payments). Many of them also require payment at the moment of accessing water (for example, payment at a water kiosk or through pre-paid meters). In the narrative of pro-poor services, these technologies appear as devices to relieve people of the financial burden associated with connection fees, deposits and bulk monthly payments (Tewari & Shah 2003; Berg & Mugisha 2010). Some even present pro-poor water services through appropriate technologies as promoting financial 'self-sufficiency' and being 'demand-responsive', in that they allow households to pay for water when they use it and in the amounts that they demand. The prepayment for relatively small quantities of water allows users to consume water without risking arrears in bills, which will warrant disconnections. In doing so, the financing scheme that accompanies appropriate technology is seen as better fitting the needs and demands of low-income households (Heymans *et al.* 2014).

While all this may be so, the financial arrangements associated with social connections, block tariffs and appropriate technologies in practice often do not turn out to be very equitable. A study of social connections in West Africa found that they may be useful to target 'the relatively poor who own property', but that their use for 'the poorest' may be limited (Lauria *et al.* 2005, p. 25). This is because such social connections often require land tenure and 'the poorest' are likely to be unable to pay the monthly water bills from an in-house connection. (Whittington 1992) has highlighted the possible adverse effects of IBTs in developing countries. Because often multiple low-income households share a single water connection, the cumulative consumption of these households can place the shared connection in the higher tariff blocks. 'In such situations IBT structures may actually have the opposite effect than the intended equity objective; they may penalize low-income households instead of helping them' (Whittington 1992, p. 72). Finally, although low consumption levels may lead to lower payments for water, in comparison with in-house connections, the price per m^3 paid at kiosks or pre-paid meters are often higher than lowest block tariffs for in-house connections. Schwartz *et al.* (2017) show that lower service levels provided through appropriate technologies are frequently more expensive than services provided through in-house connections and yard taps. They claim that, as a result, already existing social and economic inequities are reinforced through differentiated service provision.

A more general concern is that by emphasising payment for services, money becomes a prerequisite for accessing

water. Access to water is cut off when consumers have used up their credit or when they do not have money to pay at water points (Harvey 2005; Heymans *et al.* 2014). In those cases, they have either the option of trying to access potable water through their social network (neighbours, friends and family) or of accessing alternative water sources (rivers and lakes), which are frequently unfit for consumption. In cases where a consumer accesses water through their social network it inevitably leads to a dependency of the consumer on his/her network.

Organisation: community and small-scale private sector involvement

As highlighted above, pro-poor water services often involve some replacement of money for in-kind contributions. This may happen by asking consumers to provide labour to construction and connection work. It often also happens by expecting a higher involvement of the users or the community in the actual management and operation of the infrastructure. This latter strategy makes it easier and cheaper for the utility to provide water to low-income areas, while also reducing the monetary costs of water for consumers. Two main narratives justify involving the community in providing water services. The first relates to the perception that a community-based organisation will more efficiently and effectively operate and manage a water supply system than a government utility. The narrative, which is often linked to neo-liberal calls for reducing state involvement in water services provision, argues that community members, being the end-beneficiaries of the water supply system, will have strong incentives to efficiently manage the water supply system. Moreover, by having a better understanding of their own needs, the community is also expected to better ensure that the system is managed in accordance with demands. Community involvement in this narrative is thus seen as contributing to sustainable water supply, on the condition that community members perceive it to be in their best interest to operate and manage a water system (Carter *et al.* 1999). The second framework argues that the delegation of management responsibilities is a form of empowerment because community members obtain a voice in how the system is operated and managed. This narrative thus emphasises the decision-making power granted to a community (Harvey & Reed 2007).

Although community involvement may take on a number of different forms, in many cities in Sub-Saharan Africa, it *de facto* entails water utilities delegating the provision of services to community-based organisations or private organisations residing in the lower-income areas. In this arrangement, the water utility becomes a bulk supplier of water to these organisations. These organisations then both deliver the water to consumers and collect tariffs for this service. Examples include the management of water kiosks by water user associations (Rusca & Schwartz 2012; Rusca *et al.* 2015) and the Delegated Management Model, which involves a partnership between a water utility and small-scale community-based private operators (Schwartz & Sanga 2010). In the policy literature promoting these models, they are framed as reflecting a 'demand-oriented approach' as the organisational arrangement can be adapted to users' inclinations and also provide a podium for the voices of users to be heard (Watson *et al.* 1997; Rusca *et al.* 2015). Studies documenting the implementation of these models, however, have raised a number of critiques and concerns. As early as 1980, community management was already viewed as a 'buzz phrase' and described as 'the mythology for the [Drinking Water] Decade' (Feachem 1980, p. 15) that lasted from 1980 to 1990. Bell & Franceys (1995, p. 1174) argued that except for small projects being based on 'personal loyalty, civic duty and a cooperative spirit', community participation is often challenging and does little to lower costs. Gomez & Nakat (2002) even suggest that community involvement can lead to higher costs. Studies also show that empowerment, one of the underlying aims of community involvement, has, in practice, largely been stripped of its radical and transforming qualities and has become individualised (Cleaver 1999). As communities are characterised by their own internal differences and politics, community management can lead to the reproduction of existing inequalities within these communities (Manor 2004, p. 192). Community involvement may actually disempower local citizens as some are excluded from meaningful participation (Dill 2009).

Another concern raised by the more critical literature relates to the requirements for sustainable management of

systems. Without support by governments or non-governmental organisations (NGOs), the ability and motivation of communities to keep water systems running and keep collecting revenues for recurring expenditures may decline (Carter *et al.* 1999, p. 295). Similarly, small-scale private operators may not have the required capacity to operate and manage a water system (Schwartz *et al.* 2017; Tutusaus *et al.* 2018). In actual practice, management through community-based organisations or small-scale providers may imply that the State withdraws from its responsibility of service provisioning and fails to provide such support (Boakye-Ansah *et al.* forthcoming; Rusca *et al.* 2015; Schwartz *et al.* 2017). This is an important conclusion of Frediani's (2015) investigation of small-scale private water providers operating under the Delegated Management Model. He finds that risks and responsibilities are transferred to small-scale private operators, who lack the capacity to adequately deal with these responsibilities and who are not sufficiently supported in their operations. This leads to a lower level of service provided to customers served by these intermediaries.

A final criticism relates to the need of the intermediary organisations to operate on the basis of cost recovery. They often receive no subsidies from the government. Rusca & Schwartz (2017) and Boakye-Ansah *et al.* (forthcoming), for instance, found that community-based and private operators both operate like business entities that need to recover their investment costs and make a profit. As a result, water services provided through such intermediaries may turn out to be more expensive than what users would have paid when paying the tariffs charged for water delivered through a connection to the conventional network. In the case of Lilongwe, Malawi, for instance, the water user associations triple the (subsidised) price paid for bulk water when charging users of the water kiosk. As a result, water kiosk users pay 1.5 times more for their water than users connected to the conventional network (Rusca & Schwartz 2017).

POPULARITY OF PRO-POOR APPROACHES: BALANCING FINANCIAL AND SOCIAL OBJECTIVES

Despite the criticism of pro-poor water service approaches, they remain popular as approaches to improve service provisioning to low-income areas. In our analysis, an important explanation for this is that they fit the mixed mandate that public water utilities have in developing countries: public water utilities have to satisfy both social and commercial objectives. On the one hand, an increasing consensus appears to exist that public water utilities should operate on the basis of cost recovery. Pricing policies which fail to recover costs are considered unsound as they weaken the financial viability of the utility (Kessides 2004). At the same time, international and national treaties and policies emphasise that access to water is a human right to underscore that it should be (made) available to all. In fact, most countries have committed themselves to the achievement of Goal 6 of the Sustainable Development Goals (SDGs), which states that sustainable management of water and sanitation for all is to be achieved by 2030. Realising this ambitious goal largely falls on water utilities. To be able to achieve it without compromising their financial or commercial viability, what has come to be known as 'pro-poor services' provides an ideal approach (WSP 2008, p.12).

CONCLUSION

The concept of pro-poor services is very popular in the water supply and sanitation sector. The policy literature on the topic promotes a pro-poor services approach by emphasising how it can help improve access for poor consumers living in low-income areas. Unlike the MII which advocated for a standardised level of service for all, pro-poor services entail an explicit differentiation of services by distinguishing between areas and consumers on the basis of income, land tenure or ability to pay. This differentiation happens by adapting the technology to the abilities and needs of low-income users and by the design of specific financial and organisational arrangements. As the name 'pro-poor services' suggests, pro-poor services are presented as being, first and foremost, beneficial for the poor. Our analysis shows that 'pro-poor services' are also an attractive way for water utilities to fulfil their dual objectives of ensuring commercial viability, while expanding services to the poor. In contrast to a 'one-size-fit-all' approach, pro-poor services justify and produce a differentiation which enables public water utilities to delegate some of the costs, burdens and risks of providing water to low-income areas to the

inhabitants of these areas. It allows them to maintain credibility in the eyes of those donors and governments demanding that water services should be available to all, without compromising their financial sustainability. We conclude that the different dimensions of pro-poor service provisioning work out well for water utilities: the use of low-cost technologies, limiting the consumption of consumers in low-income areas, the guaranteed payment for services and the use of distinct organisational structures makes it possible for the water utility to meet social objectives, while continuing to focus most investments and efforts on serving existing 'normal' customers.

This dual benefit of supplying the poor while ensuring commercial viability is frequently presented as a win–win situation: both the users in low-income neighbourhoods as well as the water utilities providing such services are believed and said to gain. With water utilities operating on commercial principles, the differentiation of service levels is presented as 'a medium for progressive steps in favour of the poor and a driving force behind the necessary regulation of composite supply systems' (Jaglin 2008, p. 1898). While pro-poor services may indeed increase or improve the provision to and accessibility of water in low-income areas, our review and analysis show that it risks widening existing inequities in water access: the urban poor may have access to poorer services for which they pay more. If this happens, pro-poor strategies become against-poor and the assumed win–win scenario becomes a win–lose one. Unless the implementation of these strategies is linked to explicit concerns about the quantity, quality and affordability of the service to the poor, pro-poor services will not lead to equitable access.

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