

Briefing

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Policy pointers

Local authorities and urban water utilities in sub-Saharan African cities need to recognise that sufficient water supplies remain unaffordable for many low-income households.

Affordable and easily available water significantly reduces poverty, by saving time and money and improving family health and people's ability to work.

Current charging policies undermine the SDG 6.1 aim of universal and equitable access to safe water. If SDG 6.1 is to be realised, policymakers must carefully consider affordability, including the role of subsidies.

In keeping with SDG target 6b, support should be provided to local communities to participate in improving water and sanitation planning and management, and to understand the implications of pricing policies.

Why is water still unaffordable for sub-Saharan Africa's urban poor?

Across sub-Saharan Africa, water services for low-income urban communities remain variable and often unaffordable. Although water kiosks may be available and households may be connected on shared and metered connections, costs often remain prohibitively high. We report studies in four cities that illustrate how buying sufficient municipal water can cost between 11 per cent and a theoretical 112 per cent of typical household incomes. Although citizens in low-income communities are increasingly recognised as 'customers' deserving services, their inability to pay is being down-played because of the sector's emphasis on cost recovery as a way to modernise water utilities. Achieving SDG target 6.1 — universal and equitable access to safe and affordable water for everyone by 2030 — will require action on urban water costs.

Across sub-Saharan Africa, water services in urban areas remain variable in terms of quality and quantity, especially where limited attention has been paid to the needs of low-income communities. This briefing reports research by affiliates of Shack/Slum Dwellers International (SDI) in Harare in Zimbabwe, Windhoek in Namibia, Blantyre in Malawi and Dar es Salaam in Tanzania. The research examined water services provided to low-income communities and how an emphasis on cost recovery instead of cost-recovery management and privatisation has influenced the cost of access.

During the 1980s, there was widespread concern that water utilities had been undermined by decades of political interference, poor management and low expectations. The sector was underfunded, with very limited piped networks in sub-Saharan cities. Subsidy regimes were often in place, but these benefited higher-income residents

who had piped water supplies, while simultaneously limiting revenues that might have been used to extend connections. The water utilities had few external sources of financing and political lobbying prevented higher water charges, so some service providers instead raised connection fees, further preventing access by low-income residents.

An initial response was to encourage greater private-sector involvement to change the culture, reduce political interference and provide additional investment capital. However, private-sector ownership and management proved both difficult and contentious. Over time, private companies themselves became less interested in this option, as political opposition to privatisation and economic instability increased the risks involved and reduced the profitability. As a result, 'corporatisation' (rather than privatisation) of public utilities was being widely promoted in cities across the global South. Corporatised utilities

Even where access to water is provided, cost can be prohibitive

have autonomy from government, but are government owned. Under corporatisation, the focus is on recovering costs (taking into account any specific subsidy regime). Whether corporatised or private, water enterprises are therefore under pressure to raise incomes.

Alongside these changes in water provision have come changes in the relationships between low-income or informal communities and local authorities. In the past, many city authorities (whether local or central government) would not supply water to informal settlements for fear of legitimising residents' land claims. However, privatised and corporatised companies are under pressure from the regulatory authorities to expand the networks and increase access. In this context, residents in informal settlements are increasingly viewed as legitimate customers entitled to access public services — so long as they can pay for them.

Improving access: a mixed picture

Reporting on the Millennium Development Goals (MDGs) suggests that people's overall access to water has improved significantly. According to the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, the proportion of people without access to an 'improved water source'¹ was halved between 1999 and 2010. But this positive overarching picture is misleading: some regions, including sub-Saharan Africa, failed to meet the target. In the countries studied for this report, the significant increase in urban populations means that, despite improvements in

absolute numbers, the percentage of the population with improved water sources generally appears to be static or declining (Table 1).

In all four nations, the percentage of urban residents with access to piped supplies has fallen. However, the absolute numbers of those reached has increased. Water provision is being extended into informal and low-income settlements. In Tanzania and Malawi, this appears to have been achieved through greater use of kiosks selling water in containers. In Namibia and Zimbabwe, there is a continuing emphasis on extending piped and metered supplies, although Table 1 indicates the limitations of this strategy.

How much does water cost?

We assessed the cost of water as a percentage of poorer city dwellers' incomes in Blantyre, Dar es Salaam, Harare and Windhoek (Table 2). To construct the table, some assumptions have been made.

Defining low-income neighbourhoods.

We focused on people living in low-income settlements. In Blantyre and Dar es Salaam, these were the residents of informal settlements. In Harare, these were residents of low-income settlements (there are very few informal settlements due to prevailing government attitudes). In Windhoek, we studied informal settlements that have, for the most part, been given access to basic services under a permissive local authority (tenure is in the process of being formalised within at least some settlements).

Water consumption. There is no universally agreed amount of water people require each day. However, WHO recommends 20 litres per person per day as the minimum needed for basic

Table 1. Changing access to water services over the Millennium Development Goal period in Malawi, Namibia, Tanzania and Zimbabwe

Country	No. of urban dwellers with access to improved water	Percentage of urban dwellers accessing improved water sources	Percentage of urban dwellers with water piped to dwelling	Percentage of national population accessing improved water sources	Percentage of national population with water piped to dwelling
Malawi (1990)	1,031,612	91	37	42	6
Malawi (2015)	2,658,662	96	33	90	8
Namibia (1990)	392,238	99	82	70	32
Namibia (2015)	1,101,755	98	69	91	51
Tanzania (1990)	4,842,150	92	31	54	6
Tanzania (2015)	12,884,502	77	28	56	13
Zimbabwe (1990)	3,033,980	100	98	79	33
Zimbabwe (2015)	4,670,278	97	74	77	28

Note: Data are based on projected figures where up-to-date population figures are not yet known.

Source: JMP (UNICEF WHO 2015).⁸

personal and food hygiene after acute and extreme emergencies. We use this as our 'low consumption' level. We also use a 'high consumption' of 50 litres per person per day, which is the lower end of the 50–100 litres per person per day that WHO recommends as necessary for wellbeing in non-emergency situations.² SDI studies reported a basic household size of five to six people in the low-income neighbourhoods of the study cities, so Table 2 considers both household sizes. We do not adjust the amount of water for different household members, that is, young and old are assumed to need the same amount of water as other family members in this simplified analysis.

Incomes. Income assumptions are based on a range of estimation techniques for 'typical' households. In Windhoek, a monthly household income of US\$102 was used, being the 2013 average income for the 73 per cent of households dependent on only one income (as established by a survey³ of 633 households living in informal settlements). In Blantyre, we assumed \$29 per household per month, which a survey of 4,255 households in 2013 established as the upper income for the fourth quintile in Blantyre's informal settlements.⁴ In Harare and Dar es Salaam, we used low-income wages since reliable household income data are not available. In Dar es Salaam, we assume an income of \$45 per household per month, based on one male unskilled monthly wage of \$30 and one female domestic worker's monthly wage of \$15 (there are two income earners in most low-income households in Dar es Salaam). In Harare, we used a single monthly wage of US\$80. This was the gazetted wage for a live-out domestic worker in 2014 and fits with SDI assessments of low-income households.⁵

Prices. We established up to three prices for water: the formal price charged by the utility or municipality for piped water, and the low and high prices of any communal supply. For communal supplies, we took the top and bottom prices provided by SDI's settlement profiles (but excluded exceptional outliers). In Windhoek, the communal supply was metered public standpipes, with bills being shared out among households (thus giving only one price for communal supply). In Harare, there is no communal supply so only the cost of piped water was assessed. The UN and Water Supply and Sanitation Collaborative Council argue that water and sanitation facilities and services must be available and affordable for even the lowest-income households. They suggest that costs for water and sanitation services should not exceed 5 per cent of a household's income.⁶

Table 2. Potential water costs as a percentage of household income

Consumption (litres per person per day)	Piped water		Low cost communal supply		High cost communal supply	
	20	50	20	50	20	50
Five people per household						
Blantyre (2013)	38	92	13	34	22	56
Dar es Salaam (2014)	7	17	15	38	61	152
Harare* (2014)	6	7				
Windhoek (2013)	3	9	5	12		
Six people per household						
Blantyre (2013)	45	112	16	40	27	67
Dar es Salaam (2014)	8	20	18	46	73	182
Harare* (2014)	7	11				
Windhoek (2013)	4	13	6	14		

*Piped water in Harare incurs a standing charge as well as a unit charge.

Our findings show that just buying water takes up a considerable proportion of the incomes of poor households. In Harare, water appears relatively affordable, but it is important to note that it cannot be purchased separately. Piped water incurs a standing charge as well as a unit cost, and the metered costs of supply are billed together with other council services, making the overall monthly bill less affordable. Across all four cities, the costs of municipal water supply for a six-person household using the higher consumption of 50 litres per person per day and with piped supplies vary between 11 per cent and a theoretical 112 per cent of household income. In Dar es Salaam and Windhoek, those households that can access piped supplies and manage with 'emergency' levels of water find it most affordable. But in Dar es Salaam and Blantyre, the unit price (usually for 20-litre containers) of even low-cost communal supplies means that five-person households without piped supplies have to spend more than 13 per cent of their income if they are to meet even minimal water needs.

The effects of unaffordable water services are not clear. Some households have been excluded from piped services, and in many cases it is very likely that high prices force households to either go without water at times or to access additional supplies such as water from shallow wells.

Emerging lessons for SDG 6

Sustainable Development Goal (SDG) target 6.1 seeks universal and equitable access to safe and affordable water for everyone by 2030. To achieve this, much more attention on affordability is needed. The communities studied in Dar es

Salaam, Windhoek, Harare and Blantyre demonstrate how even where access is provided, cost can be prohibitive. Yet city-level utilities have limited resources and remit, and have had to focus on recovering costs, often to the detriment of low-income households. Achieving SDG target 6.1 will need careful planning, perhaps including using public subsidies.

Previously, many local authorities did not provide adequate services in informal areas. That is changing, but their obligations are generally framed around enabling access for residents to the market. The rationale seems to be more about broadening the customer base from which to recover costs than about realising citizens' rights to basic services. Recent research in Lusaka⁷ illustrates this approach, reporting the views of a representative of the Ministry of Local Government and Housing who argued that he did not think that water services were unaffordable in informal settlements: "I don't agree with this excuse. Mainly because 70 per cent of Lusaka's population live in such an environment so with usage of water and services there must be money to be captured from the areas. Problem is ensuring systems are in place to capture that money."

Low-income citizens living in informal settlements face a difficult situation. On the one hand, local authorities increasingly recognise that they are entitled to services, and informal settlement residents persistently say that they do not expect to receive services for free. On the other hand,

little attention has been given to adjusting market outcomes to achieve greater redistribution and equity. The emphasis on market principles delegitimises low-income communities' disadvantages, and does not fit easily with the goal of universality.

SDG target 6b aims to support and strengthen the participation of local communities in improving water and sanitation management, and there is certainly a need to engage with local communities to understand the implications of pricing policies and to boost community participation in water supply planning. It is becoming clear that the conditions of supply (such as the price households pay, but also the spacing of bills) are key to issues of access and affordability.

Ultimately, all policymakers and decision makers need to recognise the contribution affordable water makes to reducing poverty. If water is available and affordable then much time may be saved sourcing it (freeing up time for work and other tasks), buying it takes up less household income, there is less household sickness (which also helps adults work) and children are better able to go to school. Where incomes are more regular, there is also less likelihood of falling into debt.

Diana Mitlin and Anna Walnycki

Diana Mitlin is a principal researcher in IIED's Human Settlements Group. Anna Walnycki is a researcher in IIED's Human Settlements Group.



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Shack/Slum Dwellers International (SDI) is a network of community-based organisations of the urban poor in 33 countries and hundreds of cities and towns across Africa, Asia and Latin America.

Contact

Diana Mitlin
Diana.Mitlin@iied.org

Anna Walnycki
Anna.Walnycki@iied.org

80–86 Gray's Inn Road
London, WC1X 8NH
United Kingdom

Tel: +44 (0)20 3463 7399
Fax: +44 (0)20 3514 9055
www.iied.org

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Notes

¹ WHO/UNICEF define an improved drinking-water source as "one that, by nature of its construction or through active intervention, is likely to be protected from outside contamination, in particular from contamination with fecal matter". <http://www.wssinfo.org/definitions-methods>. / ²http://www.un.org/waterforlifedecade/pdf/human_right_to_water_and_sanitation_media_brief.pdf, and Gleick, PH (1996) Basic water requirements for human needs: meeting basic needs. *Water International* 21 83–92. http://pacinst.org/wp-content/uploads/sites/21/2012/10/basic_water_requirements-1996.pdf. / ³ SDFN (2012) Affordability levels among SDFN groups in Windhoek. Submission to the Poor Residents Committee. NHAG study. Windhoek. / ⁴ Centre for Community Organisation and Development (CCODE) and Malawi Homeless People's Federation (2013) Building citywide sanitation strategies from the bottom up. A situational analysis for Blantyre City, Malawi. Research report. SHARE, London. / ⁵ Beth Chitekwe-Biti, director of Dialogue on Shelter, in personal communication to the authors, January 2015. / ⁶ UN-Water Decade Programme on Advocacy and Communication and Water Supply and Sanitation Collaborative Council (undated) The Human Right to Water and Sanitation. Media brief. http://www.un.org/waterforlifedecade/pdf/human_right_to_water_and_sanitation_media_brief.pdf. / ⁷ Kennedy-Walker, R *et al.* (2015) The role of power, politics and history in achieving sanitation service provision in informal urban environments: a case study of Lusaka, Zambia. *Environment and Urbanization* 27(2) 489–504. / ⁸ JMP, UNICEF WHO (2015). Progress on sanitation and drinking water – 2015 update and MDG assessment. http://www.wssinfo.org/fileadmin/user_upload/resources/JMP-Update-report-2015_English.pdf.