

Water Affordability and Equity: Assessing Invisible Burdens for the Poor

Future Water Research Symposium

Equity and efficiency in allocating water in South Africa - Challenging attitudes, changing behaviours

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The Importance of Access to Water

- Water, a basic requirement for human existence and survival
- **CESCR** declared water a **basic human right** in 2002:

“the human right to water is indispensable for leading a life in human dignity. It is a prerequisite for the realization of other human rights” (***General Comment 15***)
- “Everyone has the right to have access to:
... sufficient food and water (27 1b)”
(**SA 1996 Constitution**)
- But, accessing water and water services **comes at a cost**—affordability burden
- Part of the burden of accessing water for the poor is largely **invisible** (*financial and non-monetary*)
- Burden of accessing water is not often recognised
- The poor, bear a **disproportionately higher burden** of accessing water
- **Poor women and children** bear the highest proportion of the burden of accessing water

Affordability for Whom?

SERVICE PROVIDER



Consumer/customer



Sustainable service provision



Affordability Burden and Equity

- The Concept of Affordability Burden draws from the principle of Equity:

The equity principle, “demands that poorer households should not be disproportionately burdened with water expenses as compared to richer households” (CESCR, 2002: *General Comment 15*).



- *Equity analysis* focuses on the ratio of income the poor spend on water: The poor pay between **3 to 10 times higher than the average cost** of water (higher burden).

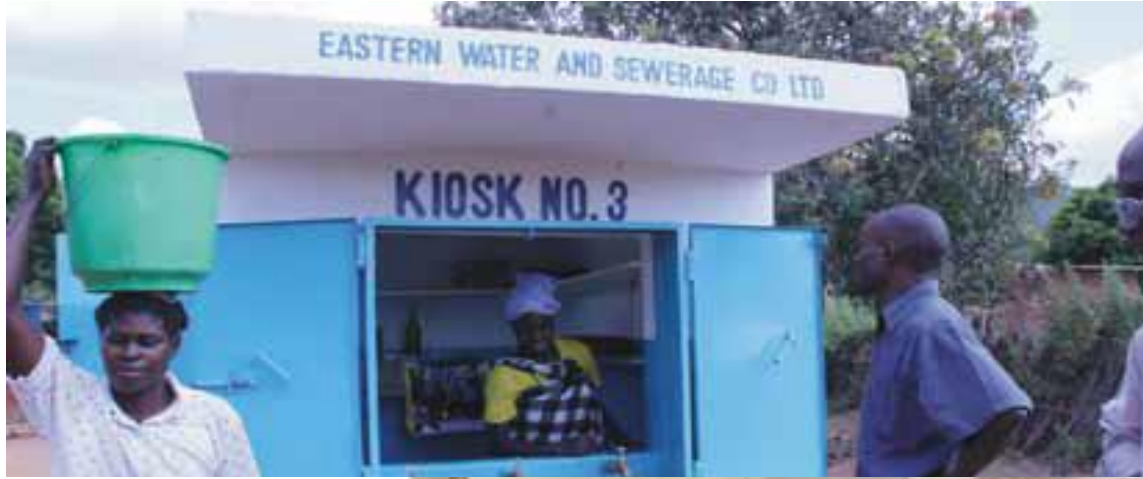


- Affordability burden approach does not just ask about whether a household can or cannot afford to pay for services, but **goes further to assess the size of the burden** (financial & otherwise) faced by different households.
- Affordability analysis should distinguish between *affordability* and the **willingness to pay**.



Invisible Burden 1

- The poor buy in small quantities



Invisible Burden 1

- Spend more time and effort to access water





Invisible Burden 2

- Spend more time and labour getting water



- Half a million full time paid jobs, 4 billion working days (Geere & Cortobius, 2017)
- Single trip to fetch water—10-65 minutes

Invisible Burden 3

- Pay more per unit of water



Estimating the Affordability Burden

- *Macro* or *Micro*- affordability approach
- Household Income/expenditure
- Establish affordability threshold
- Household monthly water consumption
- Cost of water(different price levels)
- Estimate the ratio of monthly water costs in household income expenditure
- screening households which fall below a nationally or internationally accepted affordability threshold

Trends in Monthly Water Costs for Kampala by Volume Consumed (US\$)

	2005	2009	2010	2011	2012	2013	2014	Average Annual increase (%)
15m³	13.15	14.70	14.94	13.34	15.14	14.62	15.16	13.8
10m³	8.77	9.80	9.96	8.89	10.09	9.75	10.10	9.2
6m³	5.26	5.88	5.98	5.34	6.06	5.85	6.06	5.5
3m³	2.63	2.94	2.99	2.67	3.03	2.92	3.03	2.8

Share of Water Cost in Total Monthly Household Expenditure by Decile(%)

	@ 3 m³/month		@6 m³/month		@10 m³/month		@15 m³/month	
Decile	2005	2010	2005	2010	2005	2010	2005	2010
1	2.8	3.0	5.5	6.08	9.19	10.1	13.8	15.2
2	2.0	2.3	4.0	4.64	6.67	7.7	10.0	11.6
3	1.6	1.8	3.2	3.53	5.33	5.9	8.0	8.8
4	1.3	1.4	2.6	2.88	4.28	4.8	6.4	7.2
5	1.0	1.2	2.1	2.41	3.46	4.0	5.2	6.0
6	0.9	1.0	1.7	1.99	2.90	3.3	4.3	5.0
7	0.7	0.8	1.4	1.54	2.33	2.6	3.5	3.9
8	0.6	0.6	1.1	1.20	1.84	2.0	2.8	3.0
9	0.4	0.4	0.8	0.79	1.27	1.3	1.9	2.0
10	0.3	0.3	0.5	0.53	0.84	0.9	1.3	1.3

Cost per m³ of Water for Connected and Non-Connected Users in Kampala (2015)

	Unconnected Users (A)	Connected Users (B)	A:B Ratio
	US\$/M ³		
@25UgShs/20L Jerrican	0.62	1.01	0.61
@50UgShs//20L Jerrican	1.23	1.01	1.2
@100UgSh//20L Jerrican	2.46	1.01	2.4
@200UgShs//20L Jerrican	4.93	1.01	4.9
@300UgSh//20L Jerrican	7.39	1.01	7.3
Average	4.00	1.01	4.0

These estimates do not include:

- Time spent fetching water
- The labour spend on carrying the water
- Differences in the level of service
- Health costs as a result of carrying water
- Costs of using alternative water sources
- Uncertainty in the supply of service
- Physical risks for women and children

Conclusion

- Affordability assessment can be useful in guiding policy interventions aimed at assisting households experiencing unaffordability burden
- Data challenges prevent a comprehensive assessment.
- The affordability burden assessment brings out the equity and social justice dimension
- It lays bare some of the invisible burdens
- The size of the burden depends on the way water is accessed
- **However, the assessment needs to incorporate the time and labour costs spent on fetching water**
- **Focus should be on those who carry the largest burden**

THANK YOU!