



PROGRAM ON
WATER GOVERNANCE



EDGES

ENVIRONMENT & DEVELOPMENT
GENDER, EQUITY, SUSTAINABILITY

Water Access in underserved areas of Accra, Ghana and Cape Town, South Africa. 2012 Survey Report

LEILA HARRIS

Corresponding author: lharris@ires.ubc.ca

LUCY RODINA

EMMA LUKER

AKOSUA DARKWAH

JAQUELINE GOLDIN

University of British Columbia, September 2016

*EDGES and AOW survey on Water Access and
Governance in Accra, Ghana and Cape Town, South
Africa, 2012.*

*Funding provided by Center for International
Governance Innovation, SSHRC and Peter Wall
Institute (PWIAS), UBC.*

*Please cite as: Harris et al, 2016. EDGES and AOW Water
Access in Accra, Ghana and Cape Town, South Africa:
2012 Survey Data Report, EDGES and PoWG, University
of British Columbia. www.watergovernance.ca and
www.edges.ubc.ca*

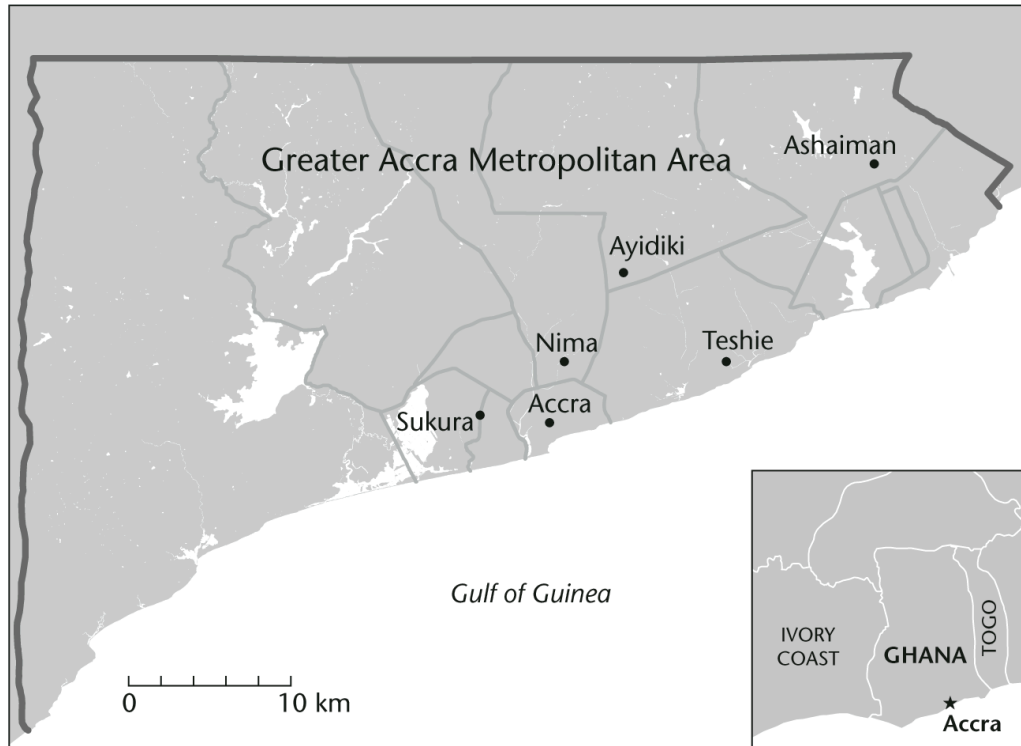
TABLE OF CONTENTS

| | |
|---|-----------|
| Overview | 1 |
| i. Background | 1 |
| ii. Context | 3 |
| Survey Results | 4 |
| iii. Basic Water Conditions | 4 |
| 1. Sources of water for households | 4 |
| 2. Primary uses for water | 5 |
| iv. Perceptions of Water Accessibility | 6 |
| 3. General experiences of water | 6 |
| 4. Ease of access to water | 7 |
| 5. Time spent accessing water | 7 |
| 6. Availability of water | 8 |
| 7. Worry about lack of water | 8 |
| 8. Sufficiency of drinking water | 8 |
| 9. Affordability of water | 9 |
| References | 10 |

OVERVIEW

Background

Across Sub-Saharan Africa (SSA) urban water supply systems face a range of challenges—so much so that the situation across the region has been classified by the United Nations as being among the most dire globally with respect to provision of water and sanitation (UN-HABITAT 2007). Among the tremendous challenges is the issue of uneven and variable delivery of services, often with some middle and high-income locales receiving safe and affordable water, while nearby lower income areas do not enjoy basic access to safe water for drinking and other domestic uses. This report provides data from a survey implemented early in 2012 with focus on basic household water uses and sources, perceptions of accessibility and affordability, and other elements of the lived experience associated with water access and governance in four relatively underserved sites of Accra, Ghana and Cape Town, South Africa. Specifically, the survey was undertaken in the communities of Teshie and Ashaiman in Accra, and Philippi and Khayletisha in Cape Town (see Maps 1 and 2). In Ghana there were a total of 243 respondents, with 123 respondents from Ashaiman (Roman Down) and 120 from Teshie (51% of the Ghanaian sample were female, and 49% male). For the South African sites, there were a total of 256 respondents—132 from Khayelitsha and 124 from Philippi (of the South African respondents, 61% were female and 39% male).



Map 1: The 2012 survey was conducted in the communities of Teshie and Ashaiman, Ghana.



Map 2: The survey was conducted in the communities of Khayelitsha and Phillipi, South Africa

There are considerable socio-cultural, political-economic and other differences across these study sites. The survey results presented here help to capture and elaborate some of these differences. While distinct, the data, both in aggregate senses, and for each specific country, helps to capture how relatively impoverished and underserved communities in both urban contexts access and assess water as part of their everyday lives. Indeed, we find the differences across the sites to be instructive in several ways, including highlighting key concerns that face relatively impoverished communities in either country, and also as background information to evaluate and understand the importance and effects of different policy and historical contexts that help to shape the realities as reported by respondents. For instance, why is it that affordability is a key concern in Ghana, yet respondents in this country do not believe that water should be free, a stark difference from their South African counterparts?

Survey results have also informed several publications, as noted in the bibliography.

Context

Accra, Ghana

In 1990, official estimates of the proportion of Ghana's population with access to high quality drinking water was 84% in urban areas and 39% in rural areas. Recent 2015 figures suggest that these numbers have increased to 93% in urban areas and 84% in rural areas (JMP 2015). These increases in accessibility are mainly due to new infrastructure implementation and water sector reform within the state-owned utility that is responsible for urban water supply: the Ghana Water Company Limited (GWCL). With a population growth rate of 3.1% a year and ongoing urbanization trends, water managers and infrastructures in Ghana are challenged by with rapid increases in water demand (GSS 2012). From 2006-2011 the private entity Aqua Vitens Rand Limited was responsible for the operation and management of Accra's water system but was heavily criticized for excluding public stakeholders, including NGO's, from decision-making processes (Adank et al. 2011), and was seen not to have delivered on promised improvements such as reductions in non-revenue water during that period. As such, the contract was not renewed in 2011, and the management was returned to the Ghanaian government. Another key feature of the urban water system of Accra is that until recently (including during our survey implementation period of 2012), water supply did not meet demand. As such, there was a rationing schedule that meant that even if access to the piped system was available, supply was intermittent at best (based on interviews conducted in 2015, this situation has recently changed with a new desalination facility coming online). Linked to this reality, a considerable proportion of residents of Accra rely heavily on water vendors and other modes of informal supply for at least part of their daily needs, including a growing sachet water sector that is increasingly important for drinking water requirements of urban residents (WDSSP 2014, Stoler et al. 2012, Adank et al. 2011, Peloso and Morinville 2014, Morinville 2012). While richer areas of the city might have made considerable investments in water storage, relatively impoverished sites might be facing various crises of supply related to a lack of storage infrastructure, inability to pay for basic water connections, or higher per unit prices for water associated with water vending (ibid).

Cape Town, South Africa

In South Africa, by contrast, many urban residents are served by formal municipal water supply, although the situation remains uneven and importantly marked by apartheid-era legacies and inequalities. Notably, the 1996 Constitution of South Africa includes the constitutional right to water and sanitation, in addition to other related laws such as the Free Basic Water Policy (2001) that are meant to ensure that all South Africans are able to enjoy access to basic services, although implementation challenges remain (Rodina 2016, Mehta 2006). The Free Basic Water policy, for instance, is one policy that has drawn both critique and praise, and as such is indicative of the realities associated with what is often viewed as progressive water legislation. The policy states that all municipalities must provide 6KL of water to every household free of charge, based on an assumption of 25 L per person per day and an 8 person household (Department of Water Affairs and Forestry 2008). However the average per capita consumption of water across the country is 229 L per day (DWS 2015), thus inciting

concern about distributional equity, use of cutoff mechanisms, and tariff increases above this minimum amount. As well, impoverished households often house more members than the assumed 8, and may be particularly hard hit by disease burden and other challenges, which can affect water household water needs. As well, there is tremendous concern about what happens after this minimal allocation is reached, as often households may be cut off despite continuing need (especially a problem when there are leakages). The policy has thus been the subject of considerable critique, together with other concerns related to the use of prepaid meters and other technologies linked with demand management (Loftus 2009, Von Schnitzler 2008, Smith and Hanson 2003, Rodina 2016, Wilson and Pereira, 2012). According to official statistics, South Africa has ensured access of high quality drinking water to more than 98% of urban residents and 81% of rural residents in 2015 (JMP 2015). In 2011, 87.3% of Cape Town residents have water access points either inside their dwelling or yard, 12% of people having access outside of their dwelling or yard and only an estimated 0.7% of inhabitants having no access to water (CCT 2012). Our study sites, Khayletisha and Phillipi have numbers lower than this as they are relatively underserved sites in this context.

By focusing on issues of water access, use, and governance among low-income and relatively underserved residents in both of these contexts, our aim is to enrich understanding of the real lived experiences of daily water realities in underserved and relatively marginalized communities. We highlight some key summary findings here, and refer you to other publications on our website for more in depth analysis as part of our peer reviewed publications.

2012 Survey Results

The complete survey instrument, and related results are available at www.edges.ubc.ca.

Basic Water Conditions

1. Sources of water for households

Note the heavy reliance on vendors in Ghana, while no respondents in South Africa provided this response. The majority of Ghanaians reported that they buy their water from a vendor (47%) and 19% reporting the use of in house or in-yard connections. 59% of respondents from South Africa reported they use in house or in-yard connections and 27% use communal taps or wells.

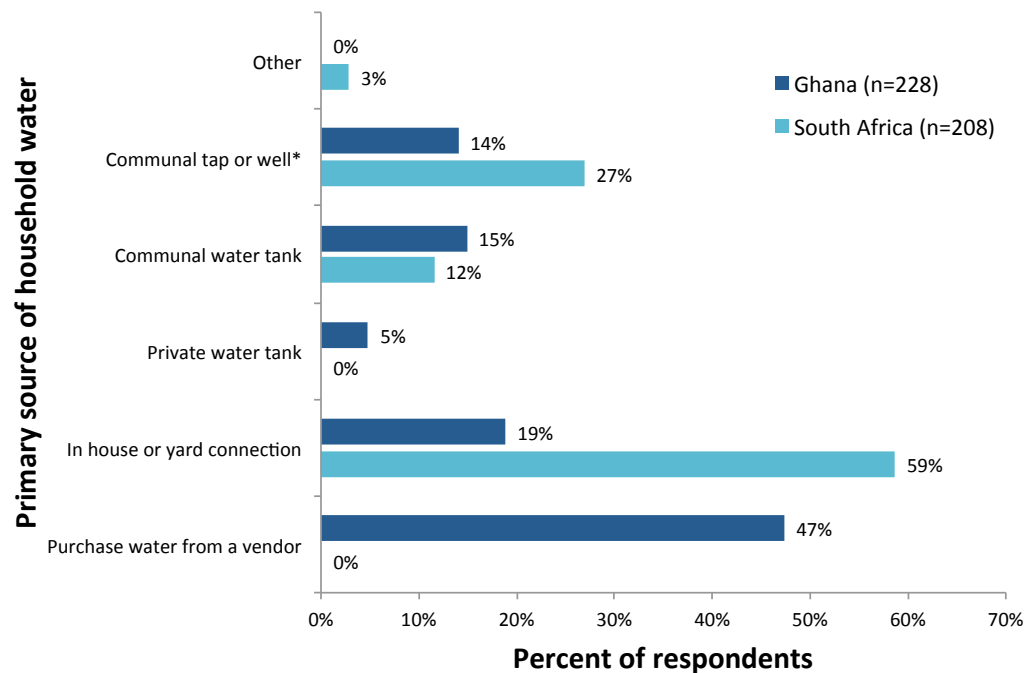


Figure 1. Primary sources of household water in Ghana and South Africa

* Question wording: From which of the following sources does this household get its water? “Tap” includes standpipes and “well” includes boreholes. The private water tank, or in-house or in-yard connection, generally refers to private/individual access (although it is possible that some might have given this response for shared communal access, particularly in Cape Town).

2. Primary uses of water

Table 1: Question wording: For which of the following activities does this household use most water?

| Uses of water | Ghana | South Africa |
|-----------------|-------|--------------|
| Drinking | 2% | 38% |
| Washing clothes | 41% | 55% |
| Cooking | 9% | 5% |
| Bathing/washing | 47% | 2% |

The largest group of respondents from Ghana (47%) as opposed to 2% of South Africans said they use the most household water for bathing. A large number from both countries reported using water for washing clothes (41% from Ghana and 55% from South Africa). 38% of South African respondents use household water for drinking and 2% of Ghanaians responding similarly (this likely suggests reliance on sachet, bottled water, or other source for drinking water specifically). We do not go into detail here, but

we expect that the politicization around safe and affordable access to drinking water in the South African context is largely responsible for the skew in the reporting on primary water uses between the countries, with many more in South Africa citing drinking water as an important use of water. Due to water storage and other facets of water access, safety is also likely to be much more of a concern for Ghanaian users. In Ghana, it seems that respondents also were likely thinking more volumetrically about water uses in a way that might not be as politically inflected as the South African case (and also due to the fact that many households are drawing on supplemental sources for drinking water specifically). See summary policy briefs at www.edges.ubc.ca for more on the different policy contexts across the countries.

Perceptions of Water Accessibility

3. General experiences of water

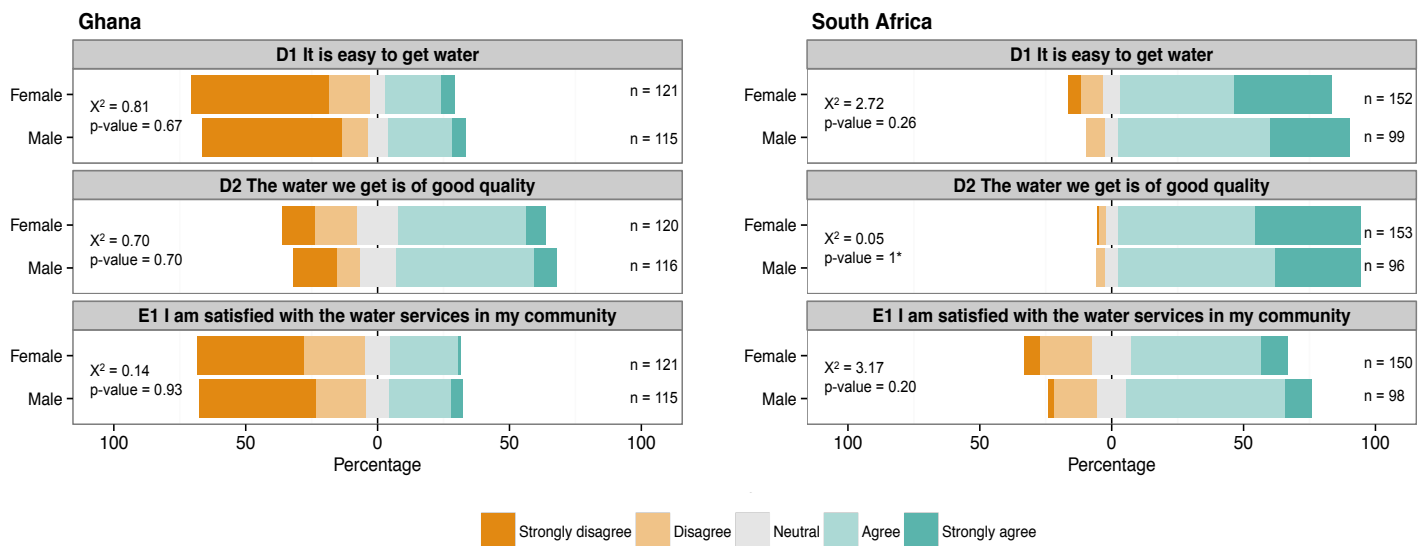


Figure 3: Experiences of water in Ghana and South Africa

The X² analysis was done on three categories of “Agree”, “Neutral”, and “Disagree”, with the “Strongly Agree” and “Strongly Disagree” being grouped in their corresponding categories. The tests are between women and men within the same country. All tests had a degree of freedom = 2.

*Indicates X² with a Monte Carlo simulation (2000 iterations) because of low frequencies (df = NA)

Figure 3 displays three scenarios regarding household water experience, which are also described in more detail below. Overall data from South Africa was more positive, suggesting that there is higher satisfaction amongst those respondents.

4. Ease of access to water

Table 2: Question wording: Is it easy to get water?

| Easy to get water | Ghana | South Africa |
|-------------------|-------|--------------|
| Strongly agree | 5% | 35% |
| Agree | 24% | 48% |
| Neutral | 7% | 6% |
| Disagree | 12% | 8% |
| Strongly disagree | 52% | 3% |

This table suggests that Ghanaians perceive access to water as much less ‘easy’ than counterparts in South Africa, with 52% of Ghanaian participants stating they strongly disagree with it being easy to get water, while 83% of South Africans either strongly agreed or agreed that it is ‘easy’ to get water in their community. This characterization is generally consistent with official data related to water access in these sites (as cited above).

5. Time spent accessing water

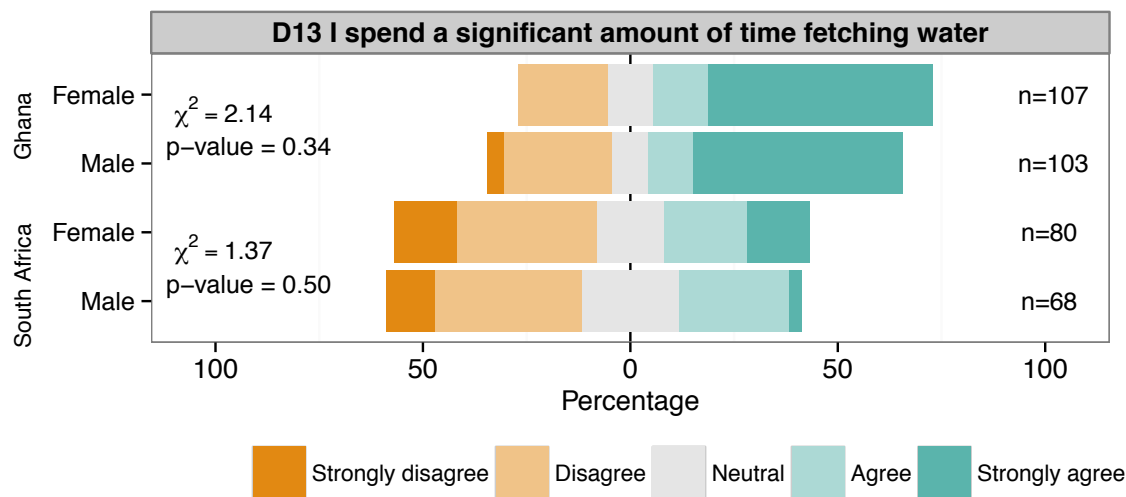


Figure 4: Time spent fetching water in Ghana and South Africa.

The χ^2 analysis was done on three categories of “Agree”, “Neutral”, and “Disagree”, with the “Strongly Agree” and “Strongly Disagree” being grouped in their corresponding categories. The tests are between women and men within the same country. All tests had a degree of freedom = 2

The majority of Ghanaian respondents strongly agreed that they spent a significant

amount of time getting water for their households, while most South African participants disagreed with this statement.

6. Availability of water

Table 3: Question wording: The water is always available.

| Water is always available | Ghana | South Africa |
|---------------------------|-------|--------------|
| Strongly agree | 1% | 34% |
| Agree | 11% | 53% |
| Neutral | N/A | 7% |
| Disagree | 31% | 5% |
| Strongly disagree | 41% | 1% |

Table 3 displays that 87% of South African participants strongly agree or agree that water is always available to them. 72% of Ghanaians disagree or strongly disagree with water being readily available.

7. Worry about lack of water

Table 4: Question wording: I worry about a lack of water.

| Worry about lack of water | Ghana | South Africa |
|---------------------------|-------|--------------|
| Never | 8% | 48% |
| Occasionally | 9% | 17% |
| Sometimes | 32% | 17% |
| Often | 48% | 15% |
| I don't know | 2% | 3% |

Table 4 describes the amount of time that respondents feel that they worry about lacking water. 48% of Ghanaians felt that they worried often about the lack of water and 32% felt that they worried only sometimes. For 48% of South African participants reported that they never worried about the lack of water.

8. Sufficiency of drinking water

The vast majority of South African respondents responded that they get enough water for drinking, with 42% strongly agreeing and 54% agreeing with the statement. In Ghana the results are more spread out, with the largest amount (50%) agreeing and the

second largest (17%) strongly disagreeing that they get sufficient amounts of drinking water.

Table 5: Question wording: I always get enough water for drinking.

| Always get enough drinking water | Ghana | South Africa |
|----------------------------------|-------|--------------|
| Strongly agree | 10% | 42% |
| Agree | 50% | 54% |
| Neutral | 6% | 1% |
| Disagree | 16% | 2% |
| Strongly disagree | 17% | 1% |

9. Affordability of water

Results regarding affordability of water in the two countries are more difficult to compare because the range of answers was quite different. 37% of South Africans chose not to answer this question, likely due to the fact that many respondents were not directly paying for water at the time of the survey,¹ as well as due to the intense politicization around water metering. However, 26% of the remaining respondents agree that household water is affordable. In Ghana half of the respondents strongly disagreed that water is affordable and 22% agreed with the affordability statement.

Table 6: Question wording: For my household, the price of water is affordable.

| Price of water is affordable. | Ghana | South Africa |
|-------------------------------|-------|--------------|
| Strongly agree | 6% | 5% |
| Agree | 22% | 26% |
| Neutral | 4% | 7% |
| Disagree | 18% | 9% |
| Strongly disagree | 50% | 4% |
| Wish not to answer | N/A | 37% |
| Do not know | N/A | 12% |

¹ At the time of the survey, residents in Khayletisha were not paying for water. Interviews with city officials confirmed that there will be no expectation of payment until completion of housing formalization.

REFERENCES

- Adank, M., Darteh, B., Moriarty, P., Osei-Tutu, H., Assan, D., & van Rooijen, D. (2011). Towards integrated urban water management in the Greater Accra Metropolitan Area *WITCH* Accra, Ghana.
- CCT. (2012). Cape Town Overview – 2011 Census (December 2012) (pp. 1-5): City of Cape Town.
- Department of Water Affairs and Forestry. (2008). Water Allocation Reform Strategy (WARS). Republic of South Africa, Department of Water Affairs and Forestry.
- DWS. (2015). Strategic Overview of the Water Sector in South Africa 2015. Republic of South Africa, Department of Water and Sanitation.
- JMP. (2015). Ghana Millennium Development Goals 2015 Report. Government of Ghana and United Nations Joint Monitoring Programme (JMP).
<http://www.gh.undp.org/content/ghana/en/home/library/poverty/2015-ghana-millennium-development-goals-report.html>
- GSS. (2012). 2010 Population and Housing Census; Summary Report of Final Results. Ghana Statistical Service (GSS).
- Loftus, A. (2009). Rethinking Political Ecologies of Water. *Third World Quarterly*, 30(5), 953-968.
- Mehta, L. (2006). Do human rights make a difference to poor and vulnerable people? Accountability for the right to water in South Africa. In P. J. Newell & J. Wheeler (Eds.), *Rights, Resources and Accountability* (pp. 63-78).
- Morinville, C. (2012). *Beyond the Pipe: participation and alternative water provision in underserved areas of Accra, Ghana*. (MA), University of British Columbia, Vancouver, BC.
- Peloso, M., & Morinville, C. (2014). 'Chasing for water': Everyday practices of water access in peri-urban Ashaiman, Ghana. *Water Alternatives* 7(1): 140-159. *Water Alternatives*, 7(1), 140 - 159.
- Rodina, L. (2016). Human right to water in Khayelitsha, South Africa – Lessons from a 'lived experiences' perspective. *Geoforum* 72: 58-66. doi:10.1016/j.geoforum.2016.04.003
- von Schnitzler, A. (2008). Citizenship Prepaid: Water, Calculability, and Techno-Politics in South Africa*. *Journal of Southern African Studies*, 34(4), 899-917.
- Smith, L. (2008). Power and the hierarchy of knowledge: A review of a decade of the World Bank's relationship with South Africa. *Geoforum*, 39(1), 236-251.
- Stoler, J., Weeks, J. R., & Fink, G. . (2012). Sachet drinking water in Ghana's Accra-Tema metropolitan area: Past, present, and future. *Journal of Water, Sanitation and Hygiene for Development*, 2(4).
- UN-HABITAT. (2007). Situation Analysis of Informal Settlements in South Africa (pp. 1-95): United Nations Human Settlements Programme (UN-HABITAT) and City of Durban (eThekweni Municipality).
- Wilson, J. and T. Pereira (2012). Water demand management's shadow side: Tackling inequality and scarcity of water provision in Cape Town. *EMG Water and Climate Change Research Series*. Cape Town, Environmental Monitoring Group.
- WSSDP. (2014). Water Sector Strategic Development Plan (WSSDP) (2012-2025) Ministry of Water Resources, Works and Housing, Government of Ghana.

OTHER PROJECT PUBLICATIONS

- Rodina, L., L. Harris (2016) Resilience in South Africa's Urban Waterscape, OpEd in The Conversation. <https://theconversation.com/resilience-in-south-africas-urban-water-landscape-60461>
- Rodina, L. (forthcoming). Reflections on water ethics and the human right to water in Khayelitsha, South Africa. In: R. Ziegler and D. Groenfeldt (Eds). *Global Water Ethics: Towards a global ethics charter*. London and New York, Routledge.
- Rodina, L & L. M. Harris (2016). *Water Services, Lived Citizenship, and Notions of the State in Marginalised Urban Spaces: The case of Khayelitsha, South Africa*. *Water Alternatives* 9(2): 336-355.
- Rodina, L (2016). Human Right to Water in Khayelitsha, South Africa – lessons from a 'lived experiences' perspective. *Geoforum*. DOI:10.1016/j.geoforum.2016.04.003.
- Harris, L. M., Kleiber, D., Goldin, J., Darkwah, A., and C. Morinville (2016). *Intersections of Gender and Water: Comparative approaches to everyday gendered negotiations of water access in underserved areas of Accra, Ghana and Cape Town, South Africa*. *Journal of Gender Studies*. DOI:10.1080/09589236.2016.1150819
- Harris, L., Rodina, L. & C. Morinville (2015). Revisiting the Human Right to Water from an Environmental Justice Lens. *Politics, Groups and Identities* 3(4): 660-665.
- Morinville, C. and L.M. Harris (2014) Participation, politics, and panaceas: exploring the possibilities and limits of participatory urban water governance in Accra, Ghana *Ecology and Society* 19 (3): 36. *Open Access Publication*
- Peloso, M. and C. Morinville (2014) Chasing for water: Everyday practices of water access in peri-urban Ashaiman, Ghana. *Water Alternatives* 7 (1): 140-159. *Open Access Publication*
- Morinville, C. and L. M. Harris (2013) Participation's Limits: Tracing the Contours of Participatory Water Governance in Accra, Ghana. In L. M. Harris et al, *Contemporary Water Governance in the Global South*, Routledge, London, UK: 216- 231.

POLICY SUMMARIES

- Analyzing Participatory Urban Water Governance in Accra, Ghana, C. Morinville & L. Harris <https://watergovernance.ca/wp-content/uploads/2015/02/Participatory-water-gov-in-Ghana-Brief-June-2016.pdf>
- Improving Participatory Water Governance in Accra, Ghana, L. Harris & C. Morinville. Center for International Governance Innovation, Policy Brief. <https://www.cigionline.org/publications/2013/6/improving-participatory-water-governance-accra-ghana>

PROJECT VIDEOS

- '*Water is Life*' (2015), a community documentary co-created with ISODEC in Accra, Ghana (*Video*). Co-production by Tremblay, C., Harris, L., Shang-Quartey, L., and members of the PV project. Available on Youtube: <https://www.youtube.com/watch?v=rVZblhLGNqU>
- '*It's Your Chance - Ithuba Lakhu*' (2015), a community documentary co-created with Iliso Care members of the Iliso Care Society production team. Available on Youtube: https://www.youtube.com/watch?v=NbG_ljQ-hVo

*Please feel free to write to lharris@ires.ubc.ca for any publications.