

Beyond the Pipe

Participation and alternative water provision in underserved areas of Accra, Ghana

by

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Abstract

Drinking water remains inaccessible for approximately 783 million people globally – an increasing portion of whom now live in cities. The incapability of municipal provision systems (both public and private) to adequately supply urban citizens means that for many of them water access is negotiated every day in places nowhere near a tap. Instead, points of access are located beyond the pipe, along informal delivery lines.

This thesis aims to evaluate the potential of two alternative modes of provision in urban Accra –participatory water governance offering new points of access in underserved communities and small-scale private service providers producing sachet water. Through an exploration of the flows of water as it leaves the municipal mains, this thesis offers a qualitative account of water access in underserved areas in Accra, Ghana.

Specifically, Chapter 2 examines participatory water governance in the form of Local Water Boards established throughout the last decade in several neighbourhoods of Accra. Through a discussion of participation’s limits, the chapter argues that a narrow approach to participation, less attentive to other multi-scalar political and social processes at play, undermines the possibilities to improve water access and foster more inclusive water governance in Accra.

Chapter 3 offers an analysis of small-scale private service providers looking at the case of Accra’s flourishing sachet water industry –sachets are 500 ml bags of water manufactured locally and distributed throughout the city. The chapter argues that the sachet industry redefines water production and alters its distribution in Accra in a way unaccounted for by the small-scale private service providers literature. The sachet water industry in Accra alters the physical flows of water as well as the power relation vis-à-vis municipal authorities and as such has significant implications for water governance.

This thesis is based on qualitative fieldwork including semi-structured interviews, field and participant observations, water user surveys, and document analysis conducted throughout two field seasons in Accra, Ghana (June to August 2011 and June to September 2012).

Preface

Chapter 2 and Chapter 3 of this thesis were originally written as stand-alone papers and have been modified to fit with this thesis.

Co-authorship Statement

Three versions of Chapter 2 have been written for publication elsewhere. The first, in a book chapter form, closely follows the layout and theoretical contributions of the chapter presented in this thesis. The second and third versions, written as a journal article for *Ecology and Society* and a discussion paper for the Centre on International Governance Innovation (CIGI), use the same material and similar literature reviews. The three were co-authored with Leila Harris. I was the first author for the book chapter and the journal article, wrote the first draft, and took the lead on suggested revisions in both cases. Leila Harris and I worked together to write a first draft of the CIGI discussion paper. These were modified to fit this thesis. Context description sections from all three papers have been moved and combined in the introduction of this thesis and can now be found in Chapter 1.

Publications arising from work presented in the dissertation

Morinville, C., and L. Harris. (forthcoming). “Participation’s Limits: Tracing the Contours of Participatory Water Governance in Accra, Ghana”. In *Contemporary Perspectives on Water Governance in the Global South* edited by L. Harris, J. Goldin, and C. Sneddon, London and New York: Routledge.

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Research Ethics Approval

The research presented in this thesis required approval from the University of British Columbia Behavioural Research Ethics Board and was conducted under UBC BREB H10-02546 entitled *Private Sector involvement and the renegotiation of everyday citizenship: The case of water provision in Accra, Ghana (and Cape Town S. Africa)*.

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List of Abbreviations

| | |
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| AVRL | Aqua Vitens Rand Limited |
| DHS | Demographic and Health Surveys |
| CHF | CHF–Ghana (previously the Cooperative Housing Foundation) |
| CONIWAS | Coalition of NGOs in Water and Sanitation |
| CWSA | Community Water and Sanitation Agency |
| FDB | Food and Drugs Board |
| GAMA | Greater Accra Metropolitan Area |
| GSA | Ghana Standard Authority |
| GUWL | Ghana Urban Water Limited |
| GWCL | Ghana Water Company Limited |
| GWSC | Ghana Water and Sewerage Corporation |
| IFIs | International Financial Institutions |
| IMF | International Monetary Fund |
| ISODEC | Integrated Social Development Center |
| LACs | Local Action Committees |
| LWBs | Local Water Boards |
| MDGs | Millennium Development Goals |
| NASPAWAP | National Association of Sachet and Packaged Water Producers |
| NCAP | National Coalition Against the Privatization of Water |
| NGOs | Non-Governmental Organization |
| NSPs | Non-State Providers |
| PURC | Public Utility Regulatory Commission |
| SAPs | Structural Adjustment Programs |
| SSIPs | Small-Scale Independent Providers |
| SPSPs | Small-Scale Private Service Providers |
| UN | The United Nations |
| UNICEF | The United Nations Children’s Fund |
| USAID | United States Agency for International Development |
| WHO | World Health Organization |

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Chapter 1

Beyond the Pipe: An Introduction

1.1 The Water Question

Despite claims that Ghana has recently achieved the Millennium Development Goals (MDGs) regarding water access,¹ the situation in Ghana's capital city, Accra, as with most urban centres, is marked by important disparities between well-served (and wealthier) neighbourhoods and underserved areas often home to more impoverished populations. A focus on the big picture – such as the one painted by claims of the country's achievements of the MDGs target – risks obscuring the complex reality of water access for many urbanites negotiating availability, affordability, and multiple modes of access in everyday senses. With increasing migration to urban centres,² a majority of Ghana's population now lives in cities as of 2010 (UN 2012). Understanding the water question in the Ghanaian context necessitates, more than ever before, a focus on urban centres and acute attention to the disparities that mark water access at the municipal scale (cf. Bakker 2010; 2012).

¹ The Joint Monitoring Programme reported 86 percent having access to improved drinking water¹ in 2010 and a 91 percent access for urban centres (WHO/UNICEF Joint Monitoring Programme 2010),

² The 2010 national census reports a population of 3.9 Million inhabitants for the Greater Accra Metropolitan Area, a significant increase from the 2.3 Million reported by the 2000 census.

1.1.1 Defining the Research

This thesis is located centrally within the urban fabric of contemporary Accra and explores questions of water access in underserved areas. For the past two decades, water governance debates have centered on questions of state and market responsibility for central provision systems (see Bakker 2004, 2010; McDonald and Ruiters 2005). But the reality is that for many urbanites, water access is negotiated every day in locations and ways that are far removed from the central network – through a myriad of alternative modes of provision. The research presented here focuses on several slums³ located within the Greater Accra Metropolitan Area⁴ (GAMA) yet existing at the precarious interstices to which the municipal water mains (and other essential services) do not fully extend. Focused on these sites, and centered on questions of water access, this thesis considers alternative modes of provision and their implications for contemporary water governance. Specifically, I investigate the everyday negotiation of water access in underserved areas, and offer a critical analysis of two alternatives being debated at present: participatory water governance providing alternative modes of access through the establishment of Local Water Boards in underserved areas (Chapter 2), and small-scale private service providers engaging in Accra’s sachet water industry (Chapter 3). In sum, this research follows the flows of water in urban Accra and considers the life and pathways of water as they exist ‘beyond the pipe.’

³ The term ‘slum’ is used throughout this thesis in accordance with the UN-Habitat’s definition of ‘slums’ as all communities investigated through this research correspond to the definition and residents often refer to themselves as slum-dwellers and deploy the term politically in their demands vis-à-vis the municipal and national administrations. The term ‘informal settlements’ is also used at times, especially when referring to literature that uses the term directly. While the sites discussed in this thesis could be described as informal settlements in many ways, they are however formally recognized by the municipality; i.e. customary titles which are generally formally recognized in Ghana and thus most do not face threats of eviction.

⁴ The geographic area considered by this thesis corresponds to the Greater Accra Metropolitan Area (GAMA). I, however, refer to the city simply as Accra throughout for clarity purposes.

Although the focus of this research is not directly on governance per se, by focusing on participation and alternative modes of access, this thesis has implications for questions of water governance. Loftus (2009) defines water governance as “arrangements in which the responsibility for ensuring access to water is distributed between various national and international agencies as well as NGOs and the private sector” (p.955). Bakker defines governance as the rules and practices through which decisions related to water access and use are determined (Bakker 2007). As she further specifies, this necessarily involves the “practice of coordination and decision-making between different actors, which is invariably inflected with political culture and power” (2010, 8). Here, I follow both Loftus’s focus on responsibility for water access and Bakker’s attention to political culture and social power as important dimensions of water governance. In this sense, this research traces the ways through which residents of underserved communities access water while also being attentive to the importance of local politics and expressions of social power in determining such access.

Several other secondary threads of inquiry also cut through the analysis, including: discussions around formal versus informal⁵ modes of engagement; attention to the pervading influence of International Financial Institutions (IFIs) on current policies and water governance processes; and the implications for notions of citizenship. I explore the latter in more details in the conclusion of this thesis (Chapter 4), in which I interrogate

⁵ The term ‘informal’ is used here to refer to modes of engagement that are not considered by official participatory mechanisms currently operating in Accra. As explored in more details in Chapter 2, I here refer to that which falls outside of our dominant understanding of participation in the water governance realm. The term ‘informal’ obviously suffers from lack of clarity at times, and while it could be critically interrogated, I aim, through the use vignettes in Chapter 2, to clearly illustrate what is meant by informal modes of engagement in this context.

the implications of focusing on the individual as a locus for water governance efforts in the current neoliberal context.

1.2 Setting the Context

1.2.1 A (Brief) History of Accra's Water Sector: From Independence to Privatization

In 1957, Ghana became the first colony to gain independence in Sub-Saharan Africa following which, Kwame Nkrumah's government embarked on a vast public-ownership development scheme. During the initial decade following independence (1960s), International Monetary Fund and World Bank loans and associated conditionalities were rejected, with efforts instead to forge an independent future. The involvement of the IFIs in Ghana began in the 1970s-80s and increased significantly under the Rawlings Administration (1981-2001). This period was marked by Structural Adjustment Policies (SAPs) and a growing level of indebtedness resulting in long-term repercussions for the country's socio-economic development (Arthur 2002; Briggs and Yeboah 2001). A first attempt to privatize Ghana's urban water sector started in 1999. It was quickly stalled when suspicions of corruption regarding unfair bidding practices surfaced, followed by widespread public protest. The National Coalition Against the Privatization of Water (NCAP) was established in the year 2000 and opposed the privatization push, particularly in response to a rapid initial increase in tariffs of 95 percent in preparation for the concession (Amenga-Etego and Grusky 2005, 282). Ultimately the protest movement was able to delay the concession with the World Bank backing out of its first loan offer (ibid; see Whitfield 2006 for further details). This brief

hiatus however ended in 2002 and talks between the government of Ghana, donor agencies, and bidders resumed. Agreement was reached in 2005 and private sector participation began in 2006 (Whitfield 2006). Specifically, the Government of Ghana leased the operational branch of the public utility (GWCL) to Aqua Vitens Rand Limited (AVRL) – a joint venture of the public Dutch company Vitens and the South African company Rand Water. Under the lease agreement, the private consortium worked in collaboration with the GWCL for the administration of Ghana’s urban water systems with the public utility holding responsibility for the remaining three managerial areas. The initial five-year contract between the government of Ghana and AVRL ended on June 6th 2011 with the government citing failure to meet and extend coverage and reduce non-revenue water and announcing its intentions to return to a publically administered utility under the newly incorporated Ghana Urban Water Limited (GUWL)⁶ (see Ghana News Agency 2011b, 2011c; interview with GWCL official, June 16, 2011).

Reforms to the water sector however did not start with the privatization process, but can meaningfully be traced back to a 1994 World Bank Action Plan. The restructuring of Ghana’s water sector, as with the case of many developing countries, is characterized by two concomitant processes: decentralization and unbundling. Broadly speaking the first devolves responsibilities from the central government to local level governmental authorities. The second results in a separation of the potentially profitable sectors from the unprofitable ones by isolating the urban and rural systems or segregating the water provision services and the sewerage services. Following such reforms, the profitable sectors can then be transferred to private interests while the unprofitable ones

⁶ It was announced on October 5th, 2012 that the GUWL would be reintegrated by the GWCL (Ghana News Agency 2012)

remain in the hands of public authorities. Of course, this has the effect of further burdening national economies and ending possibilities for cross-subsidization between the different sectors. This is precisely what occurred in Ghana. The Ghana Water and Sewerage Corporation (GWSC) was dissolved in early 1999 and the responsibility for rural water was simultaneously devolved to local level governments (District Assemblies). The Community Water and Sanitation Agency (CWSA) was created in 1999 to facilitate rural water provision and assist District Assemblies. The Ghana Water Company Limited (GWCL) was created at the same time (1999) and was granted responsibility for 101 urban water systems (including that of Accra). Lastly, responsibility for Accra's sewerage system was devolved from the newly established GWCL and transferred to the metropolitan authorities (a regional level governmental body encompassing several District Assemblies located in the capital) (Amenga-Etego and Grusky 2005).

Concurrent was the establishment of the Public Utility Regulatory Commission (PURC) in 1997, mandated to ensure appropriate regulation of water and electricity sectors. This mandate includes setting utility rates, protecting the interests of consumers, monitoring services and promoting fair competition. It has however been reported that for the water sector, the PURC was quickly pressured by the International Monetary Fund (IMF) and the World Bank to move toward full-cost recovery and automatic tariff adjustment mechanisms as conditions for a loan agreement (Ibid). While Ghana's urban water systems are, at present, publically managed, a quick look at the sector's history and recent reforms highlights the influence of IFIs and neoliberal governance policies.

1.2.2 Ghanaian Political Culture

Following the end of British rule, Ghana experienced considerable political instability. From 1957 to 1983, the country underwent nine changes of government and four military coups (Freeman 2005). Contemporary civil society and engagement in Ghana is closely linked to the country's political history. Darkwa et al. (2006) note that while engagement in civil society organizations is significant in Ghana, non-partisan political involvement remains sporadic. Furthermore, they suggest that civil society groups often play a significant role in ensuring certain kinds of basic service delivery throughout the country and mention that civil activism is particularly strong in faith-based organizations or associations (Ibid). This assertion is echoed by the findings of our survey conducted in early 2012 in which 77 percent of respondents indicated participating in church activities (Harris et al. 2012).

Ghanaian politics is characterized by significant democratic participation (Darkwa et al. 2006) and Ghanaians have been characterized as a 'vocal' population enjoying both freedom of speech (Paller 2012) and freedom of press (Darkwa et al. 2006). Despite strong participation in voting (73 percent in the 2008 election, Institute for Democratic and Electoral Assistance 2011), important civil liberties, and strong association through church activities, sports, or service provision, civil engagement of women and minority groups remains a limiting factor. Other important challenges include high levels of illiteracy; considerable economic hardship; corruption and a lack of transparency, and accountability in public institutions; as well as ineffective decentralized governance systems (Darkwa et al. 2006) – exposing interesting questions considering the important decentralization reforms that have affected Ghana's water sector in recent years. Overall,

civil engagement in Ghana, although significant, “has not been able to take full advantage of the relatively liberal political environment to make a stronger impact on public policy” (Darkwa et al. 2006, 94).

1.2.3 Greater Accra Metropolitan Area (GAMA)

Ghana’s capital city, Accra, is a fast growing urban centre facing considerable planning challenges related to historical legacies (e.g. race-based town planning or colonial development of elite areas) as well as to contemporary and future trends (e.g. population growth or in-migration). Estimates suggest that the population will grow from the current 3.9 million to between 7.3 to 16.3 million by the year 2030 (Government of Ghana 2011; Adank et al. 2011).

The Greater Accra Metropolitan Area (GAMA) includes eight metropolitan and municipal assemblies and is the most ethnically diverse area of the country. As Agyei-Mensah and Owusu (2010) note “economic segregation is the organizing force underlying residential segregation in Accra, [these] operate through several social markers, one of which remains the ethnic history of migration to Accra” (p.499). As such, ethnic, racial, and economic segregation is important to any consideration of infrastructural and service disparities across the city (Lundehn and Morrison 2007, 11). Lower income communities are often located in high-density areas or informal and slum settlements. The Accra study sites considered in this thesis (see Map 1.1) can be considered low-income, slum, or informal settlements. Teshie is a long-term coastal settlement occupied by low-income

indigenous residents⁷ while Ayidiki, Nima and Sukura are newer areas predominantly occupied by low-income migrant communities from all regions of Ghana (Agyei-Mensah and Owusu 2010; Weeks et al. 2007; Songsoore and McGranahan 1998). Ashaiman, the fifth community involved in this study as a survey site for the broader comparative research project, represents a mixed-income low-to-middle density area on the outskirts of the city.

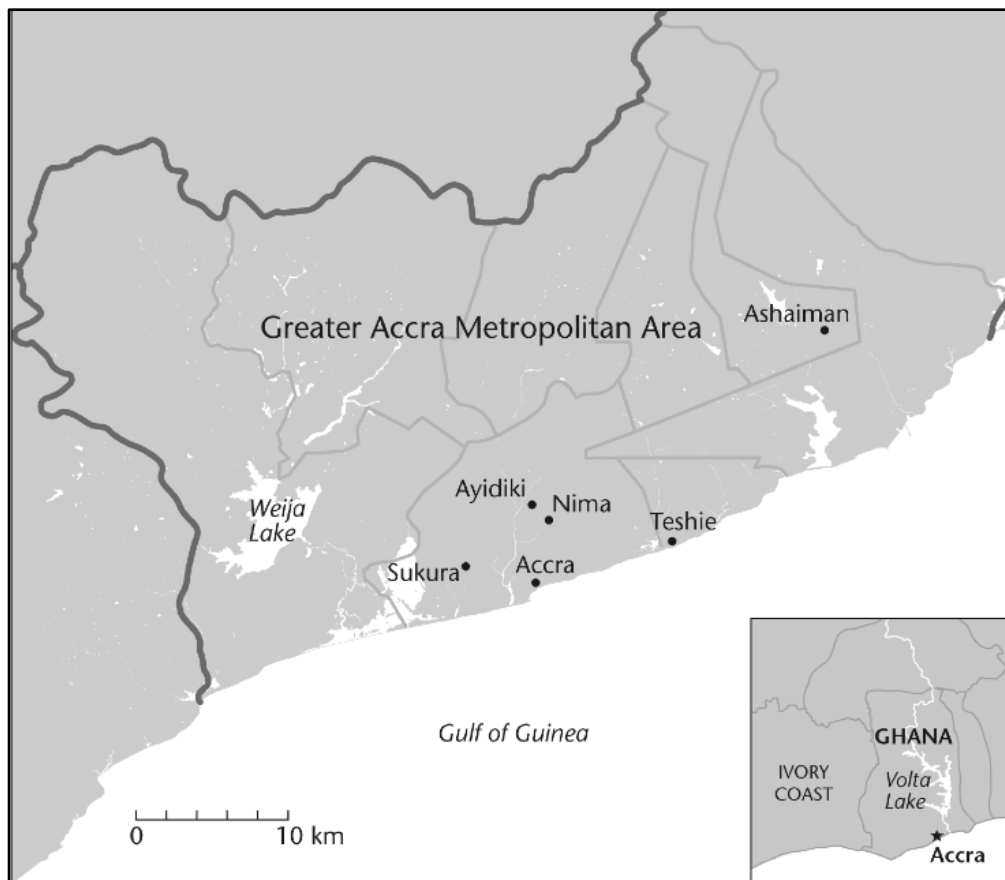


Figure 1.1: Greater Accra Metropolitan Area – Cartography by Eric Leinberger 2012

⁷ In this context the term indigenous communities is used to refer to the Ga-Dangme ethnic group. All other groups are considered to have migrated to Accra at different times of the city's development, and would not similarly be considered 'indigenous' even if they have been settled there for long time periods (Agyei-Mensah and Owusu 2010; Owusu 2008). Current estimates of the city's ethnic make-up includes Akan group as the majority population at 42 percent, followed by the Ga-Dangme (29 percent), Ewe (14.8 percent), Mole-Dagbon (5.6 percent), and other minority ethnic groups (8.6 percent) (Agyei-Mensah and Owusu, 2010).

As mentioned above, despite recent reports that Ghana has achieved the MDGs target for drinking water (with 86 percent having access to improved drinking water in 2010, WHO/UNICEF Joint Monitoring Programme 2010), water infrastructure and services, together with questions related to affordability and availability, remain key concerns. The country is also far from achieving targets when it comes to sanitation (coverage is currently estimated at 19 percent in urban centres and 14 percent and the country level, WHO/UNICEF Joint Monitoring Programme 2012).

Drinking water for GAMA is largely supplied by the Ghana Water Company Limited (GWCL), drawing from two surface sources: the Weija lake on the Densu River to the West (Weija Water Works) and the Volta Lake on the Volta River to the Northeast (Kpong Water Works). Estimates for water access across Accra vary considerably. One source suggests that 59 percent of households in Accra were reported to have a connection in 2010 (Ghana News Agency cited in Ainuson 2010), whereas another suggest 91 percent have access to improved drinking water, but only 33 percent have their own connection (WHO/UNICEF Joint Monitoring Programme 2010). The system is also commonly reported to suffer shortfalls between demand and supply, and as such, even with approximately 50 percent coverage, it is reported that only 25 percent of Accra's residents have continuous water access (Ainuson 2010, 61). To remedy the shortfall in supply, the GWCL relies on a rationing schedule to manually isolate certain neighbourhoods in order to direct water to other areas of the city. Certain neighbourhoods are accordingly scheduled to receive water seven days a week while some are only scheduled to have access one day every week. Intermittent supply also reportedly common apart from the rationing schedule, results in some households receiving water only for a couple of hours even on the days the area is scheduled to be serviced.

Unconnected households, or those affected by shortages, often rely on private and community service providers. These providers, in turn, most often obtain their water directly from the municipal providers (GWCL) and then sell the water for a profit. The full list of alternative water provision options to the municipal network includes tanker services, water vendors or kiosks, sachet or bottled water, hand dug wells, boreholes, and direct access to rivers and streams. As I discuss in Chapter 2, several of these modes of access (e.g. public or private water tanks) may be mediated by NGOs or community entities (such as Local Water Boards).

Despite the situation of water availability in Accra, Ghana on the whole is not considered a water-stressed region (Lundehn and Morrison 2007; Stoler et al. 2012a). Precipitation estimates for Accra indicate approximately 756 mm annually (Adank et al. 2011) while they range from 800 mm to 2000 mm for Ghana on the whole (Ainuson 2010).

1.2.4 Underserved Communities and Access to Water

Four communities were selected during the first field season and a fifth community was added as a survey site as part of a larger research effort. It is important to note however that the study does not present a comparative analysis of the four communities. Rather, the four sites were selected so that a range of experiences can be captured, as well as to highlight what is specific to communities or to organizational arrangements. This section offers a brief description of each of these five communities. Further details are provided as I move through the chapters whenever necessary or relevant.

Nima is often cited as Accra's worst and largest slum (Lundehn and Morrison 2007; Agyei-Mensah and Owusu 2010) and although the community is connected to the piped water network operated by the GWCL, the high elevation of the settlement means that there are nonetheless water shortages due to low pressure in the system (interview with NCAP activist, June 24, 2011; interviews with a community officials, June 24, 2011 and June 27, 2011).

Teshie, an indigenous community in an older settlement along the coast, faces serious water shortages as the mains supplying Accra (one from Weija Water Works to the west and the second from the Kpong Water Works to the northeast) both near their end as they reach the community. This problem is particularly acute in Old Teshie—the older part of the settlement, as water is often consumed before it reaches these areas despite the existence of a rationing schedule meant to serve these areas (interview with GWCL official, July 19, 2011; interview with LWB member, July 11, 2011; interview with CHF official, July 13, 2011; see also Agyei-Mensah and Owusu 2010).

Ayidiki is an area that has received considerable in-migration, resulting in a significant population growth (initially from Nigeria, and more recently from Northern Ghana, Lundehn and Morrison 2007). With respect to topography, Ayidiki is characterized by the area's middle elevation rendering it prone to pressure related shortages. Infrastructure development, or lack thereof, was suggested by some as the most significant issue with regard to water availability in the community, given limited connections to the piped network overall (interview with CHF official, July 13, 2011). In other words, the piped network reaches Ayidiki but remains quite limited.

Sukura is located on lower ground and although it seems to be enjoying the most favorable situation of the communities studied regarding water access, the community is

nonetheless often characterized as precarious and as such has been the focus of other studies on impoverishment and urban infrastructural issues (Ainuson 2010).

Lastly, **Ashaiman** is a more recently established in-migrant community located on the outskirts of GAMA. Despite its peri-urban location, connectivity maps and information provided by the GWCL suggest that the community should have relatively good access to the piped network given its proximity to the Tema reservoir. High connection fees and complex procedures however means the reality is often otherwise for many households who cannot afford the connection.

1.3 Methodology

This research was conducted in several phases and involved a mixed methods design as discussed below. Literature reviews were conducted starting in the fall of 2010 through the spring of 2012. Relevant literatures and theories are addressed in the opening section of each chapter.

1.3.1 Primary Data Collection

Primary data collection involved two field seasons in Accra, Ghana. The first field season conducted from June to August 2011 provided most of the data for this research. The second field season was conducted from June to September 2012. The focus of this follow-up visit was on data dissemination and community feedback, but also provided some supplementary data presented in this research.

The first interview stage in 2011 aimed to assess participation in water governance in several of Accra's underserved communities. Forty-three semi-structured interviews

(see Table 1.1) were conducted with community members (22), community representatives – including representatives of LWBs, leaders of various organizations, and local elected officials (Assembly Men) (12), NGO staff members (3), utility representatives (2), and government officials (2). Interviews with community members were carried out in four neighbourhoods located in the Greater Accra Metropolitan Area (GAMA) – Nima, Ayidiki, Teshie, and Sukura. Interviews with NGOs, utility or government representatives, were carried out at the municipal level. The neighbourhoods were selected in collaboration with local partner organizations (Ghana Water Company Limited (GWCL), Integrated Social Development Center (ISODEC), and CHF-Ghana⁸).

Table 1.1: Interviews By Communities and Function Group – 2011

| | Community Members | Community Representatives ⁹ | NGO Staff | Utility Representatives | Government Officials | Total |
|----------------|-------------------|--|-----------|-------------------------|----------------------|--------------|
| Nima | 6 | 6 | | | | 12 |
| Teshie | 4 | 2 | | | | 6 |
| Ayidiki | 2 | 2 | | | | 4 |
| Sukura | 12 | 1 | | | | 13 |
| Accra | | 1 | 3 | 2 | 2 | 8 |
| Total | 24 | 12 | 3 | 2 | 2 | 43 |

⁸ CHF-Ghana is one of approximately 65 NGOs working on water and sanitation related issues in Ghana (Interview with CONIWAS official, Accra, July 20, 2011). CHF-Ghana assists urban communities with developing sustainable, community-based water and sanitation solutions for informal settlements. The NGO also provides microfinance for urban residents to help start up a business, finance home building projects or support for education. Lastly, they provide training for youth in the sanitation sector (CHF-Ghana, 2012).

⁹ I differentiate between community representatives and community members. Community representatives include LWBs members, organizations leaders (Mothers' Club, Local Action Committees (LACs), etc.) and local elected officials. Community members refer to residents of those communities.

Snowball sampling was used to identify individuals to participate in this research through discussion with key informants and community members. It must be noted that the first point of entry in the four communities examined was provided by either the utility company (GWCL) or NGOs (ISODEC and CHF–Ghana). As such, the sample likely presents biases towards individuals involved with these organizations at the community level and should not therefore be thought of as representative of the broader community (the survey discussed below, however, did focus on random sampling within particular neighbourhoods of both Teshie and Ashaiman). As one aim of this research is to qualify what participatory governance mechanisms are available at the community level and what forms of engagement exist in these areas, greater inclusion of non-participative individuals, although potentially insightful, is not central to the research focus. A limited number of independent interviews was nonetheless conducted, especially during the initial exploratory phase. With regards to gender demographics, interviews with community members included ten men and 14 women. Interviews with representatives at the community, the utility or the municipal level involved a majority of male respondents (only four of the 19 interviewees were women).

Following on from the initial 43 interviews from 2011, an additional 20 semi-structured interviews were completed during the second season (2012). This second interview stage explored Accra's emergent sachet water industry in more depth. Interviewees were all involved at different nodes of the production process including sachet water producers (both from large-scale companies (4) and cottage industries (1)), distributors (company drivers (3) and private truck owners (3)), and resellers (branded depots (1), independent depots (5), and convenience stores (3)) (see Table 1.2). Several informal interviews were also conducted with street vendors, as well as semi-structured

interviews with government officials (2) and representatives of the National Association of Sachet and Packaged Water Producers (NASPAWAP) (1).

Table 1.2: Interviews Sachet Water Industry by Sector – 2012

| Sector | Number of interviews |
|-----------------------|----------------------|
| Producers | 5 |
| Large-Scale Companies | 4 |
| Cottage Industries | 1 |
| Distributors | 6 |
| Company Trucks | 3 |
| Private Trucks | 3 |
| Resellers | 9 |
| Branded Depots | 1 |
| Independent Depots | 5 |
| Convenience Stores | 3 |
| Total | 20 |

Although Ghana’s official language is English, several interviews were conducted in local languages, including Twi, Ga, Housa, and Fanti. Interviews in Twi and Fanti were conducted and translated by Amba Duaa Mensah Forson who collaborated on this project as a Research Assistant for both field seasons. Interviews conducted in Housa and Ga were conducted and translated with the help of community navigators in the respective communities.

1.3.2 Collaborative Survey

Lastly, a 500-household survey was conducted as part of a broader comparative research effort¹⁰ focusing on water access and governance in Accra, Ghana and Cape Town, South Africa. The survey was administered in December 2011 and January 2012 with collaborators at the University of British Columbia (Leila Harris, Megan Peloso, and Lucy Rodina), at the University of Ghana—Legon (Akosua Darkwah) and the University of Western Cape, South Africa (Jacqueline Goldin and the Anthropology of Water Research Team). One respondent per household was interviewed. The survey involved two sites in and around Accra: Teshie and Ashaiman, as well as two sites in Cape Town, South Africa: Phillipi and Kayetlisha. Data from this survey is considered at several points but do not constitute a major focus for this thesis, and therefore a full discussion of methods used for this survey are not included.

1.4 Thesis Outline

1.4.1 Participatory Water Governance

In Chapter 2, I explore participatory water governance in the forms of Local Water Boards (LWB) present in several neighbourhoods of Accra. This chapter asks what are the possibilities opened or foreclosed for participation in the current moment, particularly given neoliberal water governance schemes, as well as the implications for water access in underserved communities? In this sense, the chapter queries **participation's limits**, with respect to both the **limits to** participation and the **limits**

¹⁰ I worked specifically on the design of the survey instruments.

of participation in fostering transformation in terms of water access and better governance processes. Furthermore, I examine the influence of the IFIs and international water governance discourses in **delimiting** participation in Accra in an attempt to render the concept's contours visible. I conclude with some reflections on how participatory mechanisms and questions of access become entangled as well as how participation remains an ambivalent concept at present. Some input for this chapter was provided by my supervisor, Leila Harris, given that earlier versions were co-authored for publication elsewhere.¹¹

1.4.2 Small-Scale Private Service Providers

In Chapter 3, I explore Accra's emerging sachet water industry through the lens of small-scale private services providers (SPSPs). Manufactured locally, sachets are 500 ml bags of water that have been heat-sealed at both ends. More specifically, this chapter asks what is the relationship between the industry and **Accra's intricate water landscape** and what are the implications of the industry for water access and governance at different scales? Using a discussion around SPSPs as point of departure, I illustrate how the sachet water industry at times fits neatly within the predominant understandings of the SPSPs literature but also often departs from these perspectives. Specifically, the sachet water industry alters water distribution in Accra at different scales as well as redefines the

¹¹ Three versions of this piece were co-authored for publication elsewhere. The citations are Morinville, C., and L. Harris. (forthcoming, 2013). "Participation's limits: Tracing the Contours of Participatory Water Governance in Accra, Ghana". In *Contemporary Water Governance in the Global South* edited by L. Harris, J. Goldin, and C. Sneddon, London and New York: Routledge; Morinville, C. and L. Harris. (under review). "Participatory Water Governance in Urban Contexts: The case of Accra's Local Water Boards". *Ecology & Society*; and Harris, L. and C. Morinville. (forthcoming). "Towards Participatory Water Governance: A study of informal settlements in Accra, Ghana with reference to the situation in Cape Town, South Africa". Centre for International Governance Innovation Discussion Paper.

production through concurrent processes of **unitization** and **sanitization**. As such, I argue that sachet water is a multifaceted commodity redefining the water provision landscape at different scales. An exploration of the sachet water industry thus sheds light on some of the theoretical shortcomings of the SPSPs literature. In particular, I argue that the SPSPs literature fails to recognize the embeddedness of providers, such as sachet water producers, within the wider urban fabric and thus overlooks significant implications for water governance, policies, and regulatory frameworks. Here again I highlight the role of the IFIs and the international water community in shaping discourses around SPSPs and private provision.

1.4.3 Water Access, Civic Engagement and Citizenship.

Finally, I conclude in Chapter 4 with a summary of my arguments and a discussion considering implications on water access, participation, and provision for broader discussions of civic engagement and notions of citizenship. Participatory governance is based centrally on notions of community engagement in participatory mechanisms in which individuals work together for communal benefit. SPSPs, on the other hand, rely on a different understandings of civic engagement based on market profitability and individual endeavours. The concluding chapter explores some of these tensions.

Chapter 2

Participation's Limits: Tracing the Contours of Participatory Water Governance

2.1 Introduction

This chapter explores participatory water governance as it unfolds in a particular locality. Specifically, I¹² offer a qualitative evaluation of participation in the case of Local Water Boards (LWBs) established throughout the last decade in underserved communities of urban Accra. Specifically, I focus on their potential to improve water access and foster more inclusive water governance for the communities involved. As participation has been increasingly recognized and promoted in the realm of water governance, I am also interested in the concept's uptake and implementation across several neighbourhoods of Accra. As such, this chapter is attentive to the ways the concept has been promoted, the ways in which it has been used by local organizations and development agencies, as well as how such uptake can result in processes of erasure overlooking other, potentially important forms of engagement and factors at play. The chapter first presents a discussion around participation and participatory resource management, highlighting issues with the ways in which certain concepts or forms of participation have come to gain

¹² I use 'I', even as I have noted previously, some of these arguments were developed collaboratively with Leila Harris.

privilege in development and water governance agendas. I then turn to the case of Accra's Local Water Boards (LWBs) and discuss how they have been established, and how they currently function. Lastly, I focus on Accra's LWBs as a point of entry to think through the limits of participation in several ways. I explore the **limits to** participation through a discussion around the spaces opened or foreclosed for participation and engagement with LWBs in Accra. I am also attentive to **limits of** participation in terms of the possibilities to improve water access and foster inclusive governance created through mechanisms such as LWBs. Further, I am also interested in a third set of limits: participation's **delimitation** or how participation is conceptualized and how its boundaries are defined and circumscribed. In this last sense, I look at the contours of what is rendered visible and intelligible by dominant participatory frameworks at this particular time and space, and what is not. Finally, I am attentive to local politics and highlight underlying factors that influence the unfolding and particular manifestations of participation in Accra's water realm. The chapter concludes that participation, in the context of Accra, is at best ambivalent when it comes to improving water access and fostering more inclusive governance. That being said, and despite the focus of this chapter on limits, I contend that participation cannot and should not be easily dismissed. In brief, participation, in its different expressions, should be critically interrogated but not sidelined as, following on the Gayatri Spivak's wording, participation is that which we cannot not want.

In this chapter, I draw primarily on a series of semi-structured interviews conducted with community members (24), community representatives (12), NGO staff (3), utility representatives (2) and government officials (2) during the 2011 field season; as well as field observations recorded during LWB and NGO staff meetings. A follow-up

community debrief was also held in 2012 and provides some evidence mobilized in this chapter.

2.2 Participatory Resource Governance

Participation has, since the 1980s, evolved to a mainstream discourse in development theory and practice (Hickey and Mohan 2004), as well as in environmental and natural resource realms (Ostrom 1990). Objectives to foster participation and invocations of the ‘local’ are now routinely found in development agendas and projects supported by IFIs. It is often argued that participation will overcome the disjuncture between top-down policies and localities, improve outcomes by bringing in local knowledges, and lead to more effective monitoring as communities are directly involved in rule establishment and enforcement (see Ostrom 1990). Some have further suggested that participatory approaches are critical for poverty alleviation (Ahmad 2003). The *Aarhus Convention on Participatory Management for Environmental Matters* (1998), as well as a range of water-specific efforts, such as the participatory principles spelled out in the *Dublin Principles* (1992) and the *Bonn Recommendations for Action* (2001), similarly suggest that policies affecting water access should be developed on the basis of consultations with those affected. Despite such claims, the evidence with respect to the manifold benefits of participatory governance remains thin (Clever 2001; Cooke and Kothari 2001). Cleaver (2001), in a rather fierce critique of the concept, argues “participation has [...] become an act of faith in development, something [believed] in and rarely questioned” (p.36).

In line with these critiques, a growing body of work has called participation into question. While the critique is manifold (e.g. Cooke and Kothari 2001; Hickey and

Mohan 2004; Goldin 2010), the next section provides a brief review of several points that pertain to the case of LWBs in Accra and the analysis that follows.

2.2.1 Critical Perspectives on Participation

As a first order critique, it has been argued that theories of participation and development practitioners too often romanticize communities (Cleaver 2001). The ability of communities to realize change is taken for granted or assumed to be contingent on the mere establishment of formal institutions. This is too often in line with an excessive focus on the 'local,' ignoring the multi-scalar fabric through which power relations are established and reproduced. Hickey and Mohan (2004) further maintain that we have "an insufficiently sophisticated understanding of how power operates and is constituted and thus how empowerment may occur" (p.11). Accordingly, there are important issues posed regarding the appropriate scale for participatory governance, particularly as local power relations are often crucial to the implementation and operation of such institutions, and can significantly affect possibilities for 'empowerment' in any sense of the term. In this same vein, there needs to be an understanding of the ways that local power dynamics or relations articulate with modes of power across scales (with the municipality, the region, the state, or globally).

Other critical voices have raised further concerns about the push towards participation, including the ways that these efforts intersect with neoliberalism or devolution efforts. For instance, some have suggested that devolution and participatory approaches may effectively involve a downloading of responsibility to communities and as such may represent a significant burden for marginalized groups (see Walker 1999; Ribot

2002; Kesby 2005). From an equity perspective, it might be inappropriate to ask the city's poor and marginalized to deal with water governance challenges in the absence of higher level institutions or support regimes, especially given the capacity, time, and resource issues at stake as well as the considerable difficulties in finding effective and appropriate solutions to water and sanitation challenges in these areas (Harris 2009). In this sense, the collection edited by Cooke and Kothari (2001) suggest that participation might represent a new 'tyranny' that ushers in new modes of governmentality, an idea derived from Foucault's notion that power is dispersed throughout society, and people often govern themselves in ways that advance governmental agendas (Ekers and Loftus 2008). While other theorists see clear benefits to participation, they remain nonetheless concerned about the potential of these efforts to entrench power dynamics or to perpetuate inequalities through mechanisms such as 'elite capture' or 'participatory exclusions' (Kesby 2005; Agarwal 2001; Goldin 2010; Harris 2005, 2009; Ribot 2002).

Added to these concerns, the focus of many participatory governance frameworks on 'formal' participation has also been the target of much critique. Indeed, many are noting that quantitative 'bean counting' exercises related to participation might do more harm than good. They draw attention instead to the importance of fostering meaningful or genuine participation, including the ways in which people may be differently situated vis-à-vis these approaches (particularly with respect to gender, caste, class, race, and so forth; see Morales and Harris, in process). It has also been argued that we must attend to difficult-to-measure 'intangibles' such as emotions and the ways that these sentiments play into possibilities for participatory governance (see Goldin in process). In this sense, we must not only be aware of the factors influencing participation but also acknowledge that participation often occurs outside of formally recognized spaces. This echoes feminist

scholars that have long been calling for an appreciation of the ‘informal,’ ‘private,’ or ‘alternative’ spheres of engagement or politics (e.g. Lister 2003; Marston 1990; Marston and Staeheli 1994; Mouffe 1988; Staeheli 1996; Taylor 1989; Turner 2008; Staeheli et al. 2004; McEwan 2000).

Lastly, as participation is mainstreamed there is increasing potential that it might be used as a technical tool for projects rather than “a political methodology of empowerment” (Hickey and Mohan 2004). Cleaver (2001) similarly reminds us that as participatory mechanisms or empowerment, themselves, become central objectives of development, these concepts might lose their radical, challenging and transformative edge (p.37). In sum, while there has been a great push to further participatory approaches in many realms, whether in development practice or water governance, the expected results have not always materialized. Ideas around participation have also often served to reinforce a naïve and romanticized view of ‘community,’ led to the adoption of narrow approaches focused on formal institutions, or fixated on the ‘local’ rather than engaging multi-scalar approaches. Further still, more attention must be paid to power dynamics, as necessary corollaries of empowerment – particularly to better understand the role of institutions in fostering or constraining change or empowerment in communities. All told, the promise and potential pitfalls of participatory governance are multifarious.

Within this context, it is clear that calls for participation in Accra’s water realm are observable at multiple scales and across several institutions, including the World Bank, the government of Ghana, the municipality of Accra, and among the NGOs that operate in communities. Consider the World Bank clearly stating “participation and civic engagement” as a theme of its *Urban Water Project* in Ghana. Or take this statement from CHF–Ghana: “Using a community-driven approach that involves residents and a broad

range of stakeholders, CHF is helping to improve availability and access to water and sanitation services” (CHF–Ghana 2012). Interviews with staff at the GWCL similarly revealed that participation in the form of LWBs constituted a central dimension of their initiatives to improve the water access and governance for Accra’s underserved communities (interview with GWCL official, July 19, 2011). While the language of participation is replicated and cited often, what is actually happening ‘on the ground’ appears to scarcely matter, even if evidence points to the reality that participation is partial or ineffectual. As the concept comes to dominate development discourse, very little can be understood outside the register of participation, and other modes of engagement and alternative governance schemes can be rendered essentially invisible (for a more detailed discussion see also the chapter by Morinville and Harris, and the edited collection on contemporary hegemonies in water governance by Harris, Goldin and Sneddon, forthcoming).

2.3 Accra’s Local Water Boards

As indicated above, participatory water governance has long been on the agenda in Accra, both for the municipal utility (GWCL) and the private consortium operating in Accra from 2006 to 2011 (AVRL). The LWBs were initiated in 2007 and are currently operational across urban Accra, including in several of the communities investigated in this research. While all boards share some general characteristics, they also differ considerably depending on the locality, the particular partners involved, and so on. Here, I consider shared characteristics across the different boards surveyed, but also key

differences, as well as the central question of what LWBs might offer for participatory water governance.

LWBs generally involve elected representatives from a number of ‘interest groups’ (e.g. women, youth, elders, etc.) within a community for a total of 10-15 members. LWBs were initially established in partnership with the utility company (GWCL), and are, more recently, being established in collaboration with NGOs, such as CHF–Ghana, or through a pilot project of the Public Utility Regulatory Commission (PURC). Three of the communities where research was conducted during the 2011 field season had an operational LWB: Teshie, Nima and Ayidiki. Teshie’s water board was the first to be established by the GWCL in 2007 as part of a pro-poor initiative (interview with GWCL official, July 19, 2011; interview with LBW member, July 11, 2011). The utility later established LWBs in six other communities of Accra, including Nima in 2008. CHF–Ghana (hereafter CHF), an NGO based in Accra, selected Nima as an area of focus in 2009 given the community’s poor water and sanitation access. CHF, cautious of maintaining some unity across their initiatives, based their activities on Nima’s LWB model and established similar boards¹³ in two other communities of Accra, including Ayidiki in 2010 (as well as two communities outside of Accra) (interview with CHF staff, July 13, 2011). A number of other boards were established by the PURC as part of its pro-poor pilot projects, including one in Teshie (interview with PURC officials, July 12,

¹³ Boards under CHF administration are called ‘Water and Sanitation Board’ (WSB). In order to limit confusion I maintain the use of Local Water Board (LWB) throughout to refer to the entire category of water boards who have a similar focus on citizen involvement and water governance. Boards working with CHF also take part, to some extent, in the administration of micro-financing projects, helping people to acquire private water connections and latrines. These activities are not the focus of this chapter and are therefore discussed to a lesser extent.

2012). While these were not investigated in this research, the analysis presented in the next section refers to them to some extent.

While a stated primary goal of the LWBs is to promote local participation, the boards are also responsible for the administration of a certain portion of the water available in the community. For instance, the LWB in Teshie¹⁴ is responsible for the administration of a tanker as well as several water kiosks, with the board hiring a driver for the tanker and vendors for each kiosk. The tanker is filled at a provision point administered by the GWCL where water is paid for up-front by the LWB. The LWB, in turn, facilitates distribution of the water to several kiosks where vendors then sell it to community members at a fixed price established jointly by the board, the GWCL, and the PURC.

Water kiosks in Nima and Ayidiki are slightly different than the ones found in Teshie. No tankers are involved and the kiosks rely only on a direct connection to the mains. Water is nonetheless stored in polytanks¹⁵ to avoid access problems associated with shortages or inconsistent delivery through the mains. The GWCL again charges the board for the water as it is stored, and the board employs vendors who sell it by unit-volume to community members at a fixed price (normally between 20 and 30 pesewas for 20 l depending on the community). Nima's LWB has also, with the financial help of CHF (in turn funded by USAID and the Bill and Melinda Gates Foundation), recently added two boreholes to supply the community in times of shortage (originally intended to have

¹⁴ Discussions of Teshie's LWB refer to the first board established by the GWCL in 2007 unless specified otherwise.

¹⁵ Polytanks are large water storage tanks made of plastic (polyethylene). It is common for wealthier households to own a tank and thus avoid experiencing intermittent supply. Tanks are usually found elevated above ground, from a few centimeters to several meters, in order to maximize pressure and flow.

been operational by the fall of 2011, they were still not operational when I returned to Accra in the summer of 2012). LWBs established in partnership with CHF also play a significant role in raising awareness and promoting behavioural change regarding sanitation practices through, for instance, door-to-door campaigns. Furthermore, LWBs partnering with CHF can also facilitate the process of getting a private connection to the network or a private latrine for community members. While the LWB mediates many of those activities it is worth reiterating that not everything goes through the organization, and not all water flowing through a community is administered by the LWB. Individuals connected directly to the mains are not reliant on the extensions provided by the board, and other private vendor services might also operate within these communities.

2.4 Participation's Limits

Through the following discussion, I examine participation's limits. Specifically, I develop a tripartite characterization addressing (1) the spaces opened or foreclosed for participation, which I refer to as the **limits to** participation; (2) the possibilities for transformation created through these mechanisms, or what I call the **limits of** participation; as well as (3) the ways in which participation is currently conceptualized and operationalized, participation's **delimitations**¹⁶.

I highlight, through participants' own words and vignettes, the different types of limitations and while I treat them as somewhat distinct, I also recognize them as

¹⁶ The term delimit is defined as the action of determining limits or boundaries, especially with regards to 'zones' or 'areas'. The French definition for 'delimitier' indicates the word can also mean to circumscribe as with a thesis topic. I accordingly use the term 'delimitation' to signify the boundaries or the contours of participation as a concept.

inseparable, and at times, interlaced. The characterization is not intended to be definitive, nor comprehensive. Accordingly, I use it as a thought experiment helping with the establishment of a vocabulary through which we can think about participation critically and about the diverse ways that participation is effective, or not, as well as the limits of the concept in this context. Other ways of understanding and mapping the different instances of limitations presented below are possible and compatible. For example, the limits can be considered in terms of process or outcomes with some elements limiting the process of participation (such as how different groups are represented on the board), or limiting the outcomes of participation (if the board is able to broker improvements of access for the community). The distinction can also be articulated between limiting factors internal and external to the boards (such as dysfunctional power relations or quarrelling within the board and the inability of the utility to respond to the needs of communities, respectively). While a focus on process and outcomes allows a clear evaluation of participatory mechanisms' deliverables, looking at internal and external factors is particularly suited to the mapping out of the limits on multiple scales. While I am attentive to such distinction, in the remainder of this section, I focus specifically on a distinction between the 'limits to' and the 'limits of' participation as well as on the concept's 'delimitations' as it allows the discussion not only to examine the functioning of participatory mechanisms but also to question, to some extent, the concept of participation itself. In brief, a discussion considering participation's limits, including its boundaries in the case at hand, allows us to think outside of (and perhaps rethink) the concept of participation (see also Morinville & Harris forthcoming).

2.4.1 Limits to Participation

Structural factors play a role in promoting or inhibiting participation (see Goldin in process). In the case of LWBs, factors as seemingly trivial as office space for the boards to hold meetings, conduct their activities, and offer a recognized location and space for community members were highlighted.

Limiting factors can also be more substantial. Each board is based on the voluntary work of its members, and as such, echoes challenges and concerns raised in the literature suggesting participatory governance may represent a significant burden for communities or for certain segments of the population. For instance, while the organizational schemes in some cases include a dividend system to be paid to the board members with any profits generated by the board's activities, the reality is that the boards rarely make any profit. In the case of Teshie, the tanker at the center of the board's activities is ageing and increasingly plagued with mechanical problems. The board at times simply does not have the funds to pay for repair services and water distribution can be interrupted for several days. Under such circumstances, board members hardly realize any financial benefits from their involvement. This issue was apparent in a conversation with a LWB youth representative:

This board is not paid. It is a volunteer job that we are doing. It's not being paid and look at me I'm a young guy, right. Abandon my jobs and sit in meetings and stuff like that...It is very challenging...I'm a designer and construction man. You abandon your work that you have to do on your [computer] and come sit here three or four hours...discussing issues that would bring this community ahead...But, I've [also] learn[ed] a whole lot from it...not [every]thing that you do [has] to collect money or something like that. You have to sometime also volunteer some of your time to do this communal work and you're pleased to do that." (interview with LWB member, July 25, 2011)

Further limits to participation also arise from the heavily procedural nature of water-related development in Accra. Despite the existence of the boards to facilitate this process, the steps one must go through in order to obtain a connection or acquire a permit to build a latrine are considerable. For the communities investigated throughout this research, the process typically involves the particular community member or household head, the LWB, the NGO, a micro-finance organization, the utility, as well as the submetro, which must sanction the development plans (in the case of latrines). The complex process may both discourage participation itself but also limit the LWB's potential to broker improvements regarding water access or infrastructure – thus a limit of participation.

2.4.2 Limits of Participation

This particular issue was evidenced by a quote from a LWB member describing the working relationship with the submetro:

Well for the municipality helping us, there is a bit of collaboration but not much at all...it's not helpful...we mainly work with CHF, the water company, and the submetro. But what I'm saying is that the submetro it's a challenge, it's very difficult because as a government initiative to get Accra as a millennium city, we were thinking that this intervention from CHF and USAID, there [would] be some speed...But you don't see that, you don't see that coming from the submetro. There is something, I cannot describe. (interview with LWB member, July 14, 2011)

On the other hand, the LWBs clearly serve as a channel for communication between the community and the utility. Even as there might be significant issues with respect to who serves on the board (in terms of the sub-communities represented, how the elections occur, and so forth), part of the board's function is to communicate key

challenges and needs of the community to the water utility. This sentiment was expressed by one LWB chairperson:

There is a lot of collaboration because they know us, we also know them. They call us, we call them. I have meetings concerning water related programs in the community. So for instance, when they were doing the pipe laying they had to disconnect a particular group line and these community members came here to complain to us. I also called GWCL to lodge the complaint and they came and rectified it. (interview with LWB chairperson, July 14, 2011)

This function appears critical given that the GWCL is generally not present in underserved communities and may also have limited knowledge of these areas. In this sense, the LWB may facilitate community engagement through board representatives, also offering possibilities to hold the utility (or community) accountable. It was clear, through interviews with the LWBs and community members, that the LWBs have become a point of reference in the community, a go-to organization when issues regarding water arise. It can also be argued that interaction between the utility and community through the LWBs may contribute to building trust to the extent the communications are frequent, or productive. It is interesting to note, however, that survey data suggest that there is not a great deal of familiarity with the activities around NGOs efforts on water issues, this was evident from the respondents surveyed in Teshie (only 2 respondents out of 120 reported knowing of any NGOs working on water issues there). Also, a representative from the utility reported that communication between the boards and the GWCL is generally a result of issues that arise with the community's water rather than part of regular exchanges. As such, the interaction between the organization and the utility could be described as ad hoc and problem-rooted (interview with GWCL official, July 19, 2011). LWBs however bring, to a certain extent, the utility's presence into the community, both in providing water beyond the Accra's centralized network, but also in

serving as a point of pre-payment for water in some instances since community members pay the board at the moment of sourcing water.¹⁷ While pre-payment for water provided by the LWBs can help overcoming challenges such as those associated with non-revenue water, this does not necessarily alleviate concerns related to affordability (note that 68 percent of our survey respondents indicated they do not find water to be affordable).

At the same time, LWBs can be considered as acting as an extension of the utility, carrying its influence down into the trenches of slums where its integration has historically been unsuccessful. The LWBs potential to foster inclusive governance might, in this sense, be limited given that this does not appear to represent meaningful or democratic deliberation coming from within the community and can thus be seen as one of the limits of participation. It is also important to mention that all LWBs investigated as part of this research were established by an agency external to the communities and as such may again be limited in their ability to represent community members in the grassroots sense. In all cases, the communities were selected a priori by the GWCL or CHF, most often due to experiences of acute water stress. This pre-selection not only limits the possibilities for bottom up and participatory governance in other communities, but it also raises questions regarding the role of external actors, versus grassroots nominees, to foster meaningful participation. Consider a discussion between a representative of the main NGO involved with one of the LWBs and a particular member of the board:

During a progress assessment meeting, the NGO representative was inquiring about the progress made on raising awareness regarding sanitation and waste disposal since the last assessment. The board member candidly answered the question and started listing the streets that had been patrolled while motioning with her hand over her head –pointing in the direction of the

¹⁷ The LWB typically collects only money for water it sells directly. Bills to consumers enjoying a direct connection to the pipe network must be paid to the utility directly and do not involve the board.

location where the work had taken place. The NGO representative did not seem pleased with the answer and asked, while pointing in another direction, when they were going to patrol a particular street and why they had not done so already. The board member explained that they had started where they considered the situation regarding hygiene and sanitation the most acute and where awareness was most needed. The representative recognized that work was indeed needed in that area, but made clear that it was essential that they patrolled the other streets as much as possible since delegates from the funding agencies would soon visit the neighbourhood to assess the work of the NGO and its local partners and would walk the main streets rather than the zones further entrenched within the settlement.

The work conducted by the board does not only have to correspond to the objectives of the NGO, but is clearly also accountable to other stakeholders. Situations such as the one presented in this vignette illustrate not only some of the limits of participation once again, but also the ways that participation can be instrumentalized as it becomes mainstreamed. This is particularly true where large funding agencies become involved (in this case USAID and the Bill and Melinda Gates Foundation). In a Community Debrief Session held during the 2012 field season with representatives from three of Accra's LWBs to discuss the results of the work on the boards, allusions to the strictness of donors was brought up, including the ways in which board members and NGO staff feel limited in their potential to respond to community concerns rather than being accountable to donor interests and conditions of funding providers (see Hailey, 2001 for a discussion on tokenism through external agencies influence).

Furthermore, the presence of a LWB does not immunize the communities from being affected by shortages and availability issues – representing yet another case of the limits of participation. These circumstances may result in the community losing confidence in the board, the utility, or in the potential of participatory mechanisms altogether. In this sense, the infrastructural, water quality and availability challenges can

also hinder the potential of the LWBs. Take for example the case of a water vendor in Teshie:

During an episode whereby there was a technical problem with the board's tanker, the water vendor hired to administer one of the kiosks decided that the board and the utility company were not holding their end of the bargain and turned to a private tanker service to supply his kiosk with water. The vendor maintained the kiosk is now his to manage independently, even though the infrastructure (kiosk and polytanks) was initially provided by the board. When asked directly whether the polytank belongs to the LWB, he replied by acknowledging that they had provided it, but that it doesn't belong to them anymore. He also suggested that quarrelling with different executives from the LWB made them difficult to work with, pointing to inevitable challenges associated with participatory governance (interview with LWB vendor, July 22, 2011).

At the time that fieldwork was conducted, in the summer of 2011, this issue was still unresolved.

2.4.3 Participation's Delimitations

During our visit to the community as well as through interviews with board members, the behaviour and actions of the particular vendor were quickly dismissed; he had left the organization and was no longer a participant in the board's activities – which was the legitimate and recognized participatory mechanism in place in the neighbourhood. At the time, the vendor was still providing water to customers and was in this way improving water access for the community. As an autonomous vendor, he interacted directly with private tanker services and was able to circumvent some of the limitations imposed by the board, including difficulties with service interruptions. Similarly, the establishment of a second board in the community, in partnership with a different organization (PURC), has created an important division whereby both entities question and dismiss the legitimacy of the other board (interview with PURC officials, July 12, 2012).

Both the vendor's disengagement from the board as well as the quarreling between the two boards pose interesting questions for theories of participation. Does the vendor's continuing engagement with water delivery constitute a form of participation, or since he no longer works within the remit of the board, are his activities in fact working against the principles of participatory water governance? The sense that he is working in conflict with participatory mechanisms was emphasized by members of the board, but is it possible that his actions also constitute an alternative mode of civic engagement? This example provides an illustration of the way in which our understanding of participation can become overly rigid and exclude other modes of involvement with water provision and governance. Indeed, considering participation's limits in relation to mainstreamed discourses around participatory governance begs the question of what gets to be defined as genuine participation and what other forms of engagement fall outside of the dominant framework? Essentially, it once again asks the question of what is meant by participatory water governance? Is it about making formal institutions more transparent and accountable to local communities or it is about engaging communities to meet their needs and provide a space for articulating concerns? If it is at least in part the latter, then the story of the rogue water vendor could be key to understanding what participation 'means' on the ground. Furthermore, it also highlights some of the tensions regarding questions of access and participation and the ways in which they become entangled and ultimately begs the question of to what extent is participation simply about furthering access?

There are yet other considerations related to the delimitations of participatory governance that deserve mention. Consider the case of Sukura, another community I worked with during the 2011 field season. In the absence of a pre-selected and formally sanctioned LWB, community members in this district have to organize themselves

differently in order to engage the utility in dialogue. The Sukura community worked on a Community Scorecard project to grade the utility for the services they receive, and the GWCL engaged in a self-assessment of their services. They later met together to discuss discrepancies in the grading and issues affecting the community (interview with NCAP activists, July 1, 2011; and interview with CONIWAS official, July 20, 2011). First, even as these types of direct engagement appear promising, again they were facilitated by an external agency – in this case the Coalition of NGOs on Water and Sanitation (CONIWAS). Second, and more importantly, while the community is engaged in water governance processes through the Community Scorecard program, it is interesting to consider the history of their engagement:

Sukura is an in-migrant community and a majority of its residents are Muslims. In 2001, the community was subjected to police raids twice in the same week after which community members organized themselves. In the words of one of our key informants: “Some of us began to say no, no, no, we will not allow this. So we began organizing ourselves also to have our own kind of resistance.” ISODEC was at the same time organizing its anti-privatisation campaign and networked with community leaders from Sukura to facilitate the establishment of a Local Action Committee (LAC). Water became one of the focal issues of the community group advocating for social change within the neighbourhood. The committee later worked with CONIWAS on the Community Scorecard program (interview with LAC member, July 1, 2011).

2.4.4 Participation and Local Politics

This example points to the broader political context in which community participation in water governance is embedded. Participation does not happen in a vacuum and as such, it is clear that the contextual politics of privatization, development, or colonization are all potentially important to how and why participation might unfold in particular ways.

In this sense, the many factors that drove the establishment of LWBs can also be questioned rather than assuming a narrow focus on their current expression. As mentioned above, the first board was implemented in Teshie in 2007. Teshie is well-established indigenous community and thus different from the other three in-migrant communities, which were settled more recently (with Nima being an older in-migrant community). These conditions have potential implications for both the authority's acquaintance with the community and desire to address the situation as well as the community's leverage vis-à-vis the municipal authorities and the utility. Interviews with utility representatives, LWBs members and community leaders seem to suggest that the community of Teshie has historically been vocal regarding water access. The LWB was established in part as a response to the demands of the community who had previously organized under another form so as to bring attention to the community's water problem and to engage the utility company and government on the issue (interview LBW member, July 11, 2011).

The case of Teshie is of particular interest when considering the mainstreaming of participatory practices and governance. In this example, participation from above was used to contain and, in fact, avoid a situation in which there had historically been vocal protests and dissent. Furthermore, influence and power relations such as the ones described in the previous vignettes do not only result from the involvement of (large) institutions or circulate through one-way avenues, from the top to the grassroots; they exist at multiple scales.

An interview with an influential member of the LWB in Teshie revealed that much of the mobilisation and negotiation with the utility prior to the board's establishment had been organized through his personal charity. He had personally been funding the charity and several of the charity's members also

sit on the LWB. Walking through the community with him, it became clear that he was a respected resident. Interviews with other members of the boards similarly hinted at his influence and respected position within the community. In a conversation later that day, he mentioned, in a seemingly joking manner, that he hoped to be the first indigenous president of Ghana (interview LBW member, July 11, 2011).

As this vignette illustrates, politics and power relations are important at all levels, within communities as well as between individuals and broader social and political spheres. While we are increasingly aware of emotions and other intangibles, which matter when it comes to engagement in participatory mechanisms (see Goldin in process), personal gain, corruption, power and influence are also important factors to consider (see also Robbins 2000). Romanticizing communities not only implies a dismissal of the heterogeneity within a group, but may also suggest overly optimistic assumptions regarding people's desire to work for their community rather than for individual gains – a point to which I return in Chapter 4.

2.5 Conclusions

In this chapter, I have sought to understand participation's limits within the context of urban Accra. Through the vignettes presented above, this chapter discussed the potential for improving water access and fostering inclusive water governance through participatory mechanisms. I have also considered some conceptual issues related to our understanding of participation in both discourse and practice. In part, this chapter aimed to nuance our conversation and to open up our ideas to include participatory forms that might otherwise not be considered as well as to recognize that participation, whichever form it might take, does not happen in a vacuum – other processes, including local

politics, are at play. While this chapter has been focused on formal participation in the form of LWBs, I have aimed to illustrate how a narrow focus on formal participation risks missing the point. Formal and informal forms of participation are likely to be closely interwoven. It is also clear that locales' contextualities not only influence the possibilities for participation, but are also crucial to fully understand the expressions that participation might take (again, consider the histories and specificities of Teshie). Furthermore, a focus on participation also raises questions regarding the extent to which participatory mechanisms are entangled with questions of access, and the ways in which participatory mechanisms might closely correspond to decentralized governance from the top-down rather than engagement from the bottom-up or the grassroots. We must also ask participation for whom, as well as what are the implications of the need for some to engage in participatory mechanisms while others might not need to in order to secure water access? In considering participation through an analysis of its limits, this chapter contributes to a discussion that is critical of participatory approaches being increasingly mainstreamed and instrumentalized and through which we become less attentive to what happens on the ground – to what truly matters as participation remains one of the only avenues to broker change and push for better services in many communities. In this sense, while there are many avenues for a critique of participation, the reality is that too often individual engagement is the only way to secure access for community members.

Chapter 3

Accra's Intricate Waterscape: Sachet Water, Small-Scale Private Service Providers, and the Everyday Urban Fabric

3.1 Introduction

Sachet water has become a ubiquitous feature of everyday life in Ghana. The 500 ml bags of water can be found virtually everywhere, yet behind this uniform appearance lies layers of place and scale-specific particularities and subtleties which are explored throughout this chapter. As sachet water appears to be “the latest low-cost technological incarnation of vended water” (Stoler et al. 2012b, 225), this chapter uses a discussion of small-scale private service providers (hereafter SPSPs) in the water sector as point of departure to assess the ways in which sachet water is intricately embedded in Accra's waterscape. Furthermore, as the debate is moving beyond the public-private binary, the international community is increasingly interested in the potential of SPSPs to meet water demands and realize development goals. Concomitant with the growing focus on SPSPs to remedy to the world's water problems, however, is a growing need for critical and empirically grounded explorations of locally specific SPSPs. The aim of this chapter is thus located exactly at the intersection of these problematics. An exploration of

the sachet water industry¹⁸ first points out how it is, at once, in line with the literature on SPSPs but also reveals complexities that escape the dominant understanding of SPSPs. Specifically, I demonstrate how the sachet water industry alters water distribution in Accra at different scales but also redefines water production and consumption through processes of ‘unitization’ and ‘sanitization’. This, I argue, has consequences for the power relation between the producers (as a group) and the municipal authorities, which in turn effectively redefines water governance in Accra. Sachet water alters distribution in localities, but also undermines the centralized water provision network on the municipal level. In the last section, I turn to possible implications for policy and argue that overlooking the intricate ways in which the industry is embedded in Accra’s waterscape holds significant limitations for future water provision and planning, as well development and regulation of the sachet water industry.

I rely primarily on a series of semi-structured interviews conducted with sachet water producers both from large-scale companies (4) and cottage industries (1); distributors working as company drivers (3) and private truck owners (3); resellers holding branded depots (1), independent depots (5), and convenience stores (3); as well as on several informal interviews conducted with street vendors during a three-month field season from June to August 2012. This second field season builds on preliminary data

¹⁸ Throughout this chapter, I use the word industry to refer to sachet water producers as a group. The term is not meant to reference a conscious or purposeful association of producers. While semantic considerations over the choice of terminology –industry, market, economy, etc. –is beyond of the scope of this paper, the term industry is used by sachet water producers and by a majority of the people interviewed during the 2012 field season. A number of producers have formed a National Association of Sachet and Packaged Water Producers (NASPAWAP), which reports a membership of over 500 producers in Accra alone. Meanwhile, officials from the Ghana Standard Authority (GSA) reported the GSA has issued over 300 registration seals to producers.

collected through field observations and informal interviews during a two-month field season in Accra in June and July of 2011.

Packaged water is not unique to Accra, but is widely reported in Ghana and Nigeria and also present across West Africa and in parts of Asia and South America (Dada, 2011). The literature on packaged water, let alone in its modern sachet form discussed below, however remains sparse. While a review of that literature is presented in section 4, it must be noted that, to date, only one study (Stoler et al. 2012a, 2012b) offers background on Accra's sachet water industry. This explains the heavy presence of the two pieces throughout the literature review and discussion sections presented below. It also points to the crucial need for further assessments of the sachet water industry. This chapter contributes to such literature, but also offers a perspective attuned to the micro-politics and multi-scalar governance implications of the industry by looking at possible factors behind its successful development, as well as how the industry, at present, challenges and undermines the central network's authority in ways that cannot be adequately understood through the theoretical lens of SPSPs.

3.2 Small-Scale Private Service Providers

3.2.1 Terminology

The literature on SPSPs normally includes discussion of local water kiosks, cart-rolling vendors, or tanker services – to name a few. Different terminologies have been used to refer to informal water provision services: non-state providers (NSPs), small-scale independent providers (SSIPs), or small-scale private service providers (SPSPs). The

disagreement is more semantic than substantial. Moreover, these literatures are often concerned with the use of the word ‘independent.’ Three possible ways of using the term are recorded: it sometimes signifies an institutional and organizational independence; it can also be used to denote financial independence; lastly, according to the previous points, it is sometimes used to describe providers that are completely independent from a municipal or centralized system – i.e. producing and selling their own water from a private well or similar source (Kariuki and Schwartz 2005). ‘Non-state’ on the other hand can include community or NGO-led provision systems and is meant to contrast with state and governmental provision.

As Accra’s sachet water industry is the result of individual ventures where a majority of the producers rely primarily on a municipal connection and are thus not completely independent from the central network, I use the phrase ‘small-scale private service providers’ (SPSPs) for the remainder of this chapter. Literature using alternative denominations is nonetheless reviewed here.

3.2.2 Literature to Date

It is frequently argued that given the failure of both the public and private sectors to provide adequate water and sanitation, urban dwellers are left to their own devices in accessing these essential services. Alternative provision systems are thus typical of underserved areas, no matter the locality—yet the actual form of the alternative is, of course, locality specific. Residents relying on such alternative modes of provision largely face rather unfair terms given that SPSPs sell water for a much higher price per unit-volume than the central utility would. In Ghana, for example, residents of informal and

underserved settlements may pay between 18-25% of their income for water (Amengatego and Grusky 2005) – or up to ten to twelve times more than their counterparts enjoying a connection to the piped network (Government of Ghana 2012).

SPSPs were, until recently, considered to be more of a stop-gap option – temporarily expedient yet not a solution in and of themselves. This is apparent through the use of language describing SPSPs as “intermediary measures” to be used in the “short term” with an “emphasis on urban planning...and public provision” as “none of the substitute providers can be considered as superior or comparable alternatives to supply from a well monitored and regulated public utility” (Dagdeviren and Robertson 2011, 498).¹⁹ Gandy accordingly (2004) points out, “until recently, the uneven levels of connectivity in developing countries had widely been perceived as a temporary phenomenon to be overcome through ambitious efforts at urban planning and reconstruction” (p.368). The role of SPSPs in water provision is however increasingly emphasized as holding great potential for the achievement of ‘Water for All’ objectives, the Millennium Development Goals (MDGs), or the Human Right to Water. This is especially so in the wake of increasing water provision failures, marking a break away from models focused on central management and infrastructure – either public or private – characteristic of previous eras of water governance (see Harris forthcoming). Indeed, the long-standing, centralized network model for water provision has also come under increasing scrutiny, particularly as compared with the flexibility afforded by SPSPs and similar models. Centralized network approaches are not only being criticized for their shortcomings and problems in extending access to the underserved areas of several urban

¹⁹ The publication of this particular article only recently further illustrates some of the ambiguity pervading the literature at present.

centres, but are also recognized as tied to western (and colonial) ideas of development, the state, and the modern city (Kaika 2005; Swyngedouw 2004; Kaika and Swyngedouw 2000).

Proponents of SPSPs argue that decentralized solutions offer the flexibility needed to provide water in informal settlements and peri-urban areas (McGranahan and Satterthwaite 2006). SPSPs are mostly concentrated at the distribution stage and can act as ‘gap-filler’ where the service is intermittent, ‘pioneer’ in areas where no services provision is available, and be a ‘sub-concessionaire’ buying water in bulk and reselling it to community members (Kariuki and Schwartz 2005). While this last option does not involve the production of ‘new’ water, via boreholes for example, it can occur parallel to one or both of the previously stated roles. The literature contends the promises of SPSPs are manifold. In a succinct summary, Schwartz and Sanga (2010) maintain that beyond providing water where the formal utility does not reach (Cavé 2009; Kjellén and McGranahan 2006), SPSPs also operate on the basis of full-cost recovery and require no government subsidies (Stoler et al. 2012a, 2012b; Solo 1999). They have a strong incentive to reduce costs and wastage, such as unaccounted-for-water – in turn crucial for sustainability (Ibid). They are flexible and often based on local innovations (Stoler et al. 2012a, 2012b; Cavé 2009; Kjellén and McGranahan 2006; Solo 1999) and are considered demand-responsive or customer-focused, providing differentiated services according to the various needs of communities (Cavé 2009; Solo 1999). Lastly, a focus on SPSPs could also bring them out of the uncertainty and unpredictability bound to their illegal status in many cases (Conan and Paniagua 2003; Mehta and Virjee 2003). It is accordingly argued that, to meet their full potential, SPSPs must be recognized and articulated through formal water governance (Allen et al. 2006; Cavé 2009). I suggest this

type of argument tends to be celebratory of SPSPs, perceiving alternative modes of provision as pregnant with possibilities and, perhaps naively, anticipating benefits and positive outcomes. While some limitations are recognized, they are often downplayed in favour of the potential benefits for water access in underserved communities.

Cavé (2009) maintains that SPSPs are hybrids created by the juxtaposition of entrepreneurs' profit-driven logics and institutional failures of the state. But between an appreciation of the centralized network entangled in projects of modernity (see also Kaïka 2005; Kaïka and Swyngedouw 2000) and a celebration of SPSPs promoted by neoliberal agendas, there is room, and a growing need, for critical and empirical explorations of SPSPs and their unfolding in specific localities. Through an exploration of Accra's sachet water industry, I explore the tensions between the industry and the SPSPs literature in an attempt to illuminate the complex ways in which it interacts with the municipal system, is embedded in the urban fabric and redefines the water governance landscape of Accra in ways that have, until now, been largely overlooked.

3.3 Accra's Sachet Water Industry

As discussed in the introduction (Chapter 1), Accra faces a daily supply deficit estimated at 60 million gallons by a senior official of the GWCL (interview with GWCL official, June 16, 2011). To address this particular problem, the GWCL implemented a rationing schedule sometime between the 1980s (Stoler et al. 2012a) and the mid-1990s (Adank et al. 2011 report the rationing started in 1996). To this day, some areas of the city receive water up to seven days a week while others receive water only one day a week. Further still, some areas are not connected to the central network at all. Even on

days when neighbourhoods are scheduled to receive water, the flow is reported to be intermittent due to pressure issues, shortages, or other technical problems. Many residents, dependent on their financial means, may purchase polytanks or other storage devices to deal with the sporadic distribution. As such, low-income households face a double disadvantage vis-à-vis wealthier counterparts. First, low-income neighbourhoods are often disproportionately affected by the rationing schedule²⁰ (Stoler et al. 2012a), as well as from the lack of infrastructure resulting from underdevelopment and neglect since the colonial times. Second, low-income households also tend to fair poorly in time of shortages due to their inability to purchase (safe) storage devices (see also Adank et al. 2011).

Sachet water typically refers to 500 ml polyethylene plastic bags of water that have been heat sealed at both ends. The sachets sold in Accra are generally produced locally and are available throughout the city. A brief history of the sachet water industry as it developed in Accra is offered by a recent study (Stoler et al. 2012a, 2012b): the authors trace the development of sachet water as far back as the 1970s and 1980s where, they suggest, it was commonplace to purchase water by the cup on the streets of Accra where water would be consumed immediately. Alternative water services aimed at the poor and the transient population thus appear to be deeply rooted in Accra's local culture. In the 1990s, water started to be manually packaged in small plastic bags of 250-500 ml. These were marketed in an attempt to respond to both increasing demand and sanitary

²⁰ Stoler et al. (2012a) explain that the rationing is “intertwined in a self-perpetuating cycle of poverty and inability to pay for regular water services... GWCL water districts essentially compete for water, as district performance is assessed by total monthly customers billings for water services, which partly determines [non-revenue water]...The interplay between households billability and local ‘infrastructure ecology’ creates [a] geographic variability in water delivery, and sometimes creates spatial mismatches between supply and neighbourhood variability” (p.251).

limitations of ‘cup water.’ The handling of the water throughout the process had, nonetheless, obvious limitations from a sanitary perspective. The late 1990s were marked by the arrival of machinery used to package and seal water in plastic sleeves leading to the production of ‘modern day sachet water’ (Stoler et al. 2012b). It is suggested that sachets became commonplace in the mid-2000s (Stoler et al. 2012a), a point confirmed by producers interviewed during the 2012 field season (interviews with producers, July 25, 2012; July 27, 2012; August 1, 2012; August 9, 2012).

Individual sachets packets were originally²¹ sold for approximately three pesewas²² until the currency redenomination of 2007 resulted in a price increase to five pesewas due to the absence of small change in the streets. Ghanaian newspapers reported yet another price increase in March 2011 citing increases in input and fuel costs as underlying causes. Again, due to vendors’ lack of small change, the hike effectively doubled the street price of sachets to 10 pesewas (Stoler et al. 2012a; Ghana News Agency 2011a). Given the exchange rate in summer of 2012 (1GHC \approx CAD \$0.51), this price translates into approximately 5 cents Canadian.

3.3.1 From Production to Consumption

Sachet water producers can be separated in two different categories. First, around a half-dozen industries produce on a larger scale,²³ hiring formal labour and often

²¹ Around the year 2000.

²² 100 pesewas equal 1 cedi; 1 cedi was equal to CAD\$0.51 in the summer of 2012

²³ In this chapter, I refer to these industries as large-scale. It is important to note that I am using the term ‘large-scale’ only in contrast to cottage industries and not in opposition to the small-scale of SPSPs. The discussion of SPSPs encompasses both types of producers. I chose to use large-scale as this is term used locally to refer to this group of producers.

producing continuously (24 hours a day).²⁴ Second, hundreds of producers, referred to as cottage industries, engage in sachet water production on a much smaller scale, most often operating one or two machines out of their private homes. While all large-scale industries are officially recognized and registered with the Ghana Standard Authority (GSA) and the Food and Drugs Board (FDB), a number of cottage industries (albeit not all of them) operate without proper registration and full legal recognition.²⁵

The production process, which is similar for both types of industries, is rather simple and requires minimal investment (as low as 5000 GHC for a used sachet machine, a pump, an initial set of filters, and the required registration and license fees according to Stoler et al. 2012b). The water is typically drawn, often with the assistance of a pump, from a connection to the municipal pipe network (GWCL) for which producers are invoiced.²⁶ The municipally treated water is then typically put through a filtration process that might involve a combination of carbon, sand and ultraviolet filters as well as reverse-osmosis processes before it is channelled through a sachet machine. The machine sterilizes²⁷ the polyethylene and fill fixed-volume bags (500 ml), heat-seals the polyethylene roll in between each sachet and cuts the sachets into individual units. These are then ready to be manually packaged in bags of 30 units and distributed by trucks throughout the city (interviews with producers, July 25, 2012; July 27, 2012; August 1, 2012; August 9, 2012).

²⁴ For the most part, production will be limited to only two shifts of 16 hours a day during the rainy season.

²⁵ It is important to note that the FDB registration is currently only on a voluntary basis. Registration with the GSA is, on the other hand, mandatory. Legislation to make the registration with the FDB equally mandatory is currently being drafted. (interview with GSA official, August 6, 2012; interview with FDB official, August 7, 2012).

²⁶ A majority of producers report using storage tanks to address intermittent municipal supply. Provision from boreholes is also occasionally reported (see also Stoler et al. 2012b).

²⁷ This was the case in the large-scale industries visited in the 2012 field season. No data was obtained regarding sterilization in cottage industries.

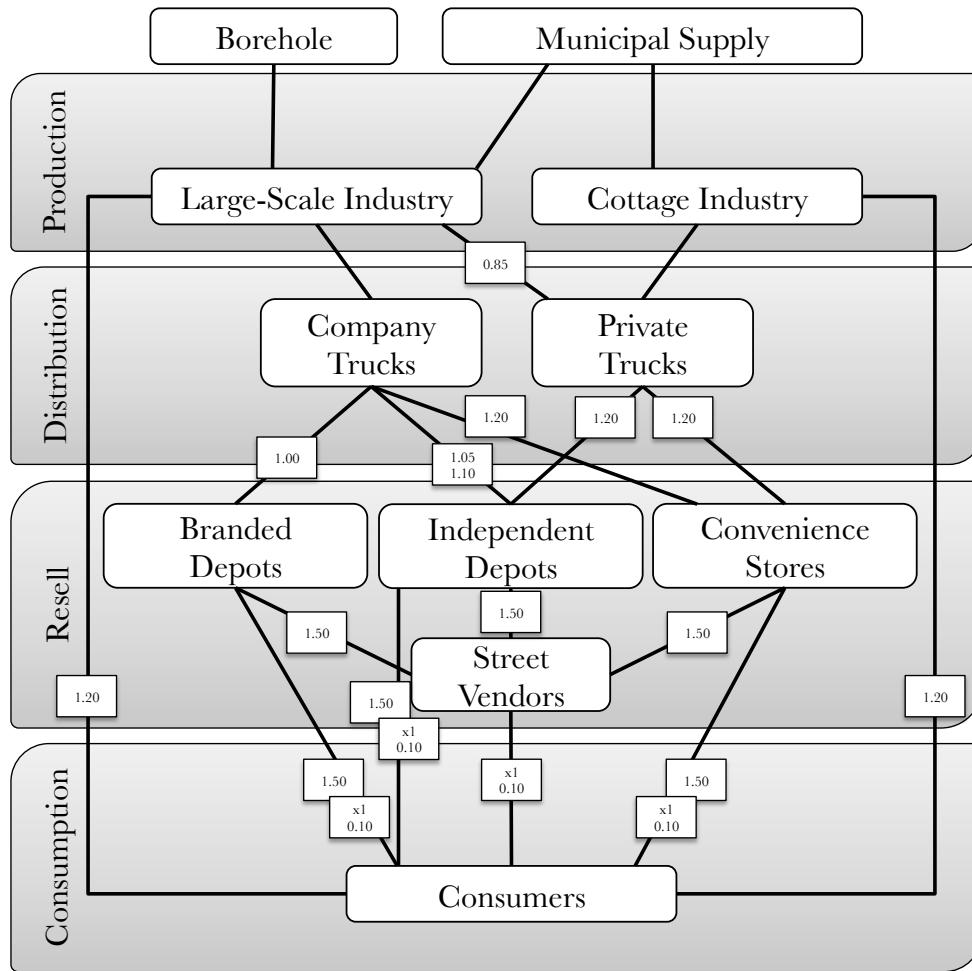


Figure 3.1: Accra's Sachet Water Industry Mapped by Sector, and Reported Transaction Prices for Bulk Packages²⁸ as of 2012

With the exception of the delivery crews formally employed by large-scale industries, the distribution is carried out informally. As a result many avenues for the distribution of sachets from producers to consumers coexist and those are quickly evolving. During the summer of 2012, the sachet water industry was a complex web composed of several nodes, and while further research exploring the different nodes of the commodity chain is needed in order to understand its complexities, Figure 3.1 presents an illustration of the industry based on current knowledge and available information.

²⁸ Unless marked by (x1) referring to prices for individual sachets.

Bulk packages (30 units, or a total of 15 l) are, in the first instance, distributed by company delivery services to branded depots officially registered with the company, carrying the name and logo, but owned privately (sold for 1.00 GHC).²⁹ Company delivery services also provision independent depots, and to a lesser extent convenience stores (1.20 GHC). Bulk packages are also sold from producers to independent truck owners at a rate varying between 0.85 GHC and 1.00 GHC and are then either taken directly to depots owned by the truck owner himself, or sold to independent depots and convenience stores, most of which simply stop the trucks as they circulate throughout the city (1.20 GHC). Some depot owners also reported calling a regular truck driver when a new delivery of sachets is needed (interviews with depot owners July 18, 2012; and July 19, 2012). Resellers will then sell individual units for 10 pesewas (0.10 GHC), or sell the bulk packages directly to community members for 1.50 GHC. The water will then be used either for households' private drinking water consumption or will be sold, yet again, by street vendors for 10 pesewas – twice the cost at which the water was purchased (in bulk packages) from resellers. Sachets destined for immediate consumption will generally be sold chilled by the resellers and vendors using ice and coolers. Individuals can also buy a small number of bulk packages from the company directly if they so choose (generally for 1.20 GHC).

²⁹ All prices indicated here report the cost at which 1 bulk package (30 sachets) was sold between the different sectors involved in the production and distribution during the summer of 2012, unless indicated otherwise.

3.3.2 Research Trajectory

As mentioned above, the academic literature on sachet water in its modern form is sparse. The emerging state of the industry dating back to the early 2000 is evidently a significant factor limiting both the literature's scope and depth at present. Stoler et al. (2012b) additionally note that since most of this literature has been published by African journals not linked to major databases (such as PubMed), this might also explain the limited dissemination, interest and knowledge around sachet water and subsequently the limited scope of the literature.

Of the literature surveyed, the focus has mostly been on the environmental impacts of the industry (see Babatunde and Biala 2010 for a similar discussion of the Nigerian case). The accumulation of plastic waste is of much concern as the single-use bags are normally discarded in streets and gutters following consumption. This increases pollution but also the risk of flooding as plastic waste³⁰ often accumulates in Accra's open gutters and obstructs drainage – a problem that is further exacerbated by Accra's location on a flood plain (Stoler et al. 2012a). This, in turn, increases the risks of contact with untreated sewage or waste, as well as contributes to the proliferation of disease vectors such as mosquitoes.³¹ In all of these senses, the presence of sachet water industry, and the improper disposal of associated waste, may exacerbate environmental health risks in Accra or elsewhere (Stoler et al. 2012a).

³⁰ Sachets from sachet water consumption are not solely responsible for obstructing drainage and increasing flood risks in Accra. Almost everything purchased in stores or on the streets of the capital is sold in plastic bags often discarded in the streets and gutters after a single use. The rise in sachet water production has nonetheless contributed to and exacerbated such risk.

³¹ This is significant given that Ghana is a malaria-prone country.

A second subset of the literature focuses on direct health risks related to sachet water consumption and looks at the microbial and chemical content of sachet water. Stoler et al. (2012b) reviewed over 200 articles and argue that despite a focus on the quality of sachet water dating back as far as the mid-1990s, most studies do not present a “sufficient sample size, geographical coverage, or general scientific rigor needed for broad conclusion about quality...” (p.232). They nonetheless highlight that despite biases toward reporting positive testing for pathogens or contaminant, not all studies reported issues of quality with sachet water. Their own study takes a different look at the health implications of sachet water consumption. In a first piece (Stoler et al. 2012a), they establish the positive correlation between (1) low socioeconomic living standards and the likelihood of sachet water consumption over the recent years, (2) the reduced access to water imposed by the rationing schedule in certain neighbourhoods and the uptake of sachet water as primary drinking water source, and (3) the consumption of sachet water and the reduced probability of diarrhoea among children under five years of age. The study suggests that sachet water consumption might have some unexpected health benefits (both perceived and real), contrary to the negative health impacts of stored water consumption generally (see Clasen and Cairncross 2004; Wright et al. 2004; Gundry et al. 2004)

The second piece (Stoler et al. 2012b) traces the evolution of sachet water consumption in Accra between 2003 and 2008 and presents evidence of the rise of the industry over those five years. They argue that sachet water is likely to stay in Accra (and other cities of West Africa) and as such there is a need for better understanding of the industry and its role in water provision and implication for water security as well as better regulation and integration into the city drinking water landscape (see also Babatunde and

Biala 2010; and Dada 2011). They argue that little attention has been paid to the importance of packaged water in meeting water security and development questions, as much of the interest has focused on big-picture issues such as commodification and privatization (see McDonald and Ruiters 2005 and Bakker 2010, respectively).

Lastly, it is important to note sachet water was originally consumed by affluent households. Data from the 2003 and 2008 Demographic and Health Surveys (DHS) however shows a clear democratization and uptake of sachet water among the low-income population strata (for a detailed discussion, see Stoler et al. 2012b; DHS 2003, 2008). A large-scale household survey was conducted with 2093 women from lower-income communities by Stoler et al. from September 2009 through March 2010 and reports that 40% of interviewed households use sachet water as their primary source of water for their drinking needs (with water from other sources most likely being used for activities such as cooking, washing and bathing). Whereas, all of the community members interviewed during my first field season (2011) reported using sachet water for drinking consumption and to a lesser extent for cooking purposes. It is worth reiterating however that only a fraction of the population in four selected underserved communities of Accra were interviewed. It is also interesting to note that individuals interviewed as part of my research were asked if they used sachet water without any specification of primary source or not. In this sense, the discrepancies between my results and those of Stoler et al. (2012a) might be built in the respective interview designs. My primary data nonetheless confirms a strong familiarity with sachets in underserved low-income communities since all community members interviewed (both formally and informally) reported consuming sachet water to some extent. Also, noting the perceived higher quality of sachet water and consequential desirability of consumption, it is possible that other factors might have

influenced the interviewees to report drinking sachet water, such as shame of admitting drinking water of lesser quality like tap water or the presence of an outsider.

3.4 Redefining Production and Altering Distribution

When considering Accra's sachet water industry in the context of the SPSPs literature, it appears as though it corresponds to several of the characteristics and theoretical expectations laid out. Indeed, it extends access to areas of the city where the municipal piped network does not reach. It answers an existing need or demand; despite its high cost per unit-volume in absolute terms or relative to pipe-borne water, sachet water is significantly more affordable than bottled water (1.5 l bottles were sold at 1.50 GHC in the summer of 2012 – ten times the cost per unit-volume for bulk packages of sachet water purchased from resellers). It is a 'local' innovation.³² Sachet water producers also operate at full-cost recovery and necessitate minimal start up costs.

In the remainder of this section, I argue that Accra's sachet water industry however presents facets that escape the dominant understandings commonly presented by the SPSP literature. I argue that the sachet water industry alters water distribution in Accra at different scales, as well as redefines the production in two ways; via processes of 'unitization' and 'sanitization'.

As discussed above, a majority of SPSPs find their role as gap fillers, located at the interstice of the partial network, extending access to those falling through the cracks, capitalizing on the failures of the centralized utility. It is however important to note that

³² I am here referring to its application local to Accra rather than the technology's place of origin –the machinery is reported to have been developed in China (Stoler et al. 2012b).

sachet water, for the most part, does not produce more water in terms of quantity; it merely packages and redirects it.³³ The sachet water industry also effectively redistributes water at a much larger scale than traditional SPSPs (e.g. cart rolling vendors). While the latter are effectively in charge of distribution, their activities are often confined to the local scale, such as the community or neighbourhood. Sachet water production alters the distribution on a much larger scale, affecting the municipal network, as explained below. Stoler et al. (2012b) argue that sachet producers are mainly located in areas of the city with reliable water access. Their activities, mostly due to the use of pumps, however influence the pressure and availability for other parts of the network, which would otherwise receive reliable service from the municipal utility.³⁴ The production of sachet water thus undermines the centralized distribution system by pumping the water away from better-served neighbourhoods, particularly those less affected by the rationing schedule. It would however be naïve to consider the sachet water industry as Robin Hood justice, taking from the elite and better served neighbourhoods and redistributing to meet the needs of the poor – entrepreneurs exchange their philanthropy for a premium!

Furthermore, I argue that sachet water redefines the production process in two significant ways. First, the water is **unitized** which allows it to fill in a special market niche. In other words, it is available in small quantities, virtually everywhere in the city, to quench one's thirst on the go. It is also available in slightly larger packages of 30 units for households who might not be connected to the network or those with limited income that

³³ With the exception of sachet production relying on borehole supply. Interestingly, intentions to move to borehole provision to access more constant and better quality supply was reported by several of the producers interviewed in 2012.

³⁴ This is also true of tanker services filling at municipal service points (stand pipes). The GWCL actually closed down many of their service points for this very reason. A vast majority of tanker services active in Accra are however reportedly supplied from boreholes (interview with GWCL official July 19, 2011).

cannot afford a flat-fee connection, or the payment of monthly invoices. I argue this process of unitization is crucial for its commodification. Indeed water's materiality –like the materiality of all resources –influences its commodification in significant ways. Bakker (2004) argues water is a heavy substance; travels through unruly flows; leaks; is easily penetrated by contaminants; and while relatively easy to store, it is expensive to transport. Furthermore, it is hard to unitize and stubbornly unresponsive to market mechanisms. “Fully commercializing water is as a consequence invariably fraught with difficulty. Yet as [...] ecological modernists remind us, it is also ripe with opportunity” (Bakker 2004, 33). By putting water into small units and enabling water to be relatively easily moveable and sold per unit, the sachet water industry is therefore able to circumvent some of the limitations of water's commodification.³⁵ This is, of course, also true for bottled water (see Gleick 2010; Wilk 2006). The relative lower cost of sachet water however explains its widespread uptake and patrons' preference for sachets over bottled water. The unitization process thus renders sachet water highly mobile and fungible. These factors, together with its affordable status, I argue, partly explain the success of the industry.

Second, and perhaps more importantly, water in the form of sachet is, in popular perception, **sanitized**. Indeed, despite the fact that the quality and possible health impacts of sachet water are debated in the literature, sachet water is widely perceived as clean. An idea of cleanliness – socially constructed through discourses around its purity, safety, and quality – is tied to sachet water and sachet water is locally referred to as ‘pure water.’ This is indeed the term used to name sachet water in everyday contexts. It is

³⁵ The distribution is generally restricted to the municipal level although representatives from some companies have reported distributing outside Accra to some extent or expressed intentions to do so in the near future.

common to hear a choir of young girls and women chanting “pure, pure, pure water...” in the streets of Accra, and advertisement from companies offers taglines such as “Drink to your health...”, “Well purified and sanitized!” or “The best quality purified water in Ghana” –to name a few. Field observations, interviews and informal conversations also confirmed people’s positive perception towards sachet water regarding its quality. Some readily mentioned it was clean, while others said it was preferable to tap water as illustrated by the following quote:

The consumption of sachet water is very high in the country, and...this is because of the lack of confidence that people will have in the quality of water they receive through their tap. There are times that you could, it’s not only the discolouring of the water, but then you could actually find...foreign material in the water that you fetch fresh from you tap, lying underneath. So already you realised that a lot of people are shying away, these days, from drinking piped water straight from there and rather relying a lot [on sachets]. So you realise that the quality issue is also putting a lot of pressure on people’s income. Even poor people have to buy sachet water for their homes for drinking because they cannot trust the quality of [tap] water (interview with NCAP activist, June 15, 2011).

Consider also this quote highlighting both the reliance on sachet water for a member of an underserved community and the financial burden of consuming sachet water when asked directly about drinking tap water.

No. I have stopped drinking it. These days we all drink the standard (common brand of sachet water) and sometimes when we don’t get some I boil water and put it there to cool so that we use (interview with community member, July 5, 2011)

I argue that by virtue of its positioning as pure and of better quality than pipe-borne water, sachet water becomes the reference in terms of drinking water and challenges the utility’s authority to provide water of good quality to the residents of Accra.

In sum, both the physical or material (sachet form) and discursive (purity) nature of sachet water explain the rapid uptake and development of the industry throughout

cities such as Accra. In this sense, the sachet water industry cannot be adequately understood through the theoretical lens of SPSPs. Indeed, whereas the literature considers SPSPs as complementary to or extension of the central network furthering access to water, Accra's sachet water industry alters the distribution of water through the city in ways that go beyond an extension of the network. Instead, sachet production and consumption actually challenge the municipal distribution system (at times creating shortages and aggravating the rationing schedule) as well as undermine the utility's authority and perceived capacity to provide water of good quality to the residents of Accra. I argue that failing to recognize the ways in which the industry exists outside of the SPSPs framework reinforces a naïve understanding of alternative modes of production as separate from the formal system or as a mere extension of the network – an add-on for slums and underserved areas. Small-scale providers, such as sachet water producers, are rather intricately embedded within the city's waterscape, altering the very form and function of provision systems, such as the one managed by GWCL.

3.4.1 Regulation and Control

As mentioned above, proponents of SPSPs often suggest, “the key to structural improvements in water and sanitation lies in the recognition of [SPSPs] practices and their articulation to the formal system under new governance regime” (Allen et al. 2006, 349). More conservative arguments for a centralized provision system dismiss SPSPs altogether. In both cases, the decision-making power lies with the political authority, SPSPs are only passive – to be regulated or prohibited. But how does that relationship play out in Accra?

The history of sachet water in Accra is marked by discourses around closure and regulation attempts. Newspapers have periodically reported calls for a ban on sachet water, government intentions to prohibit the production, or the closure of a number of facilities by the Food and Drugs Board (FDB). Those are oftentimes structured and justified through discourses around health considerations (e.g. CitiFMOnline 2011; The Herald 2011; Daily Graphic 2011; Ghana News Agency 2007; Ghana Web 2011).³⁶ Meanwhile, an increase in consumption of sachet water is reported, suggesting a corresponding increase in production (Stoler et al. 2012b).

Accra's sachet water industry offers an interesting case to explore some of the complexities around the regulation of SPSPs. My intention here is not to discuss potential ways and policies to regulate the industry in Accra per se, but to rather look at the political implications, limitations and impossibilities of such regulations. Specifically, I argue that the central utility and higher levels of governance might be limited in their attempt to regulate sachet water production. Accordingly, the sachet water industry holds significant power vis-à-vis the utility and other regulatory bodies.

By providing water to a large portion of the population that otherwise has limited access, it becomes difficult to justify any prohibition of the sachet water industry without explicit discrimination towards underserved populations – already put in a precarious situation by the failure of the centralized network to supply certain neighbourhoods and by the consequent higher cost per unit-volume at which the residents access water via vendors, tankers, or sachets. Of course, the risk of simply relying on palliative provision

³⁶ Regulation attempts have also increasingly been articulated around the urgency to ban plastic waste in the city. Various discussions concerned with different type of plastics to be used for the production and waste management in the Metropolis more broadly are also underway. These merit further investigation however outside the scope of this chapter.

services, such as sachet water, rather than working towards universal provision risks reproducing discrimination and social exclusion.

Additionally, the rhetoric used to control the small-scale entrepreneurs is bounded to discourses around water quality and safety. This is particularly clear in that current regulation is administered by the GSA and the FDB. But since a majority of sachet water producers rely on a connection to the centralized network and thus package municipal treated water, it becomes tenuous to discredit the quality of sachet water without simultaneously undermining the quality of municipal water or the ability of the GWCL to distribute water of good quality. I thus argue that the Ghanaian authorities might have limited ground onto which they can intervene, control, and regulate the sachet water industry.

Furthermore, the Ghanaian authorities are also subject to the influence of IFIs and global consensus on water governance (consider for example the privatization imposed as a loan conditionality in the early 2000s). SPSPs, in general, are widely supported by the international community, as evidenced by the numbers of favourable papers that have been commissioned and published by, or in close affiliation with, the World Bank and UN Agencies (see for example, Schwartz and Sanga 2010; van Dijk 2008; Schouten and van Dijk 2008; Kariuku and Schwartz 2005; Mehta and Virjee 2003; Collingon and Vezina 2000; McGranahan and Satterwait 2000; and Solo 1999). As a result of this likely influence, regulating, integrating, and controlling ventures such as the sachet water industry might, in this sense, be more complex than simply establishing (let alone enforcing) legislation.

Lastly, difficulties enforcing any control over the industry were alluded to by a representative of the water company (interview by Leila Harris and Megan Peloso with

GWCL official, July 6, 2012) and by representatives of both the FDB and the GSA (interview with FDB official, August 7, 2012; and interview with GSA official, August 6, 2012). They pointed, amongst other things, to the limited capital and human resources available as well as the complexity of tracking down cottage production often operating out of private homes.

As a result, efforts to regulate the production of sachet water in Accra operate on narrow grounds. The reality is that by providing an essential service to many located in areas in which municipal service is failing, sachet water has become too important to simply do away with. Furthermore, the industry's intricate connection with the municipal system means the rhetoric through which regulations can be articulated is equally slippery. Finally, the simple nature of the industry requiring limited infrastructure, the informal address system in place in Accra with most people providing a P.O. box number for registration purposes, as well as the tendency for producers to simply change their phone number following registration mean locating small-scale and cottage industries is often a laborious task. Such realities combined with the limited resources available – human and financial – to take on such task mean that regulation remains, at present, as elusive an objective as universal provision.

3.5 Conclusions

This chapter first attempts to contribute to a growing literature looking at alternative ways to conceptualise and realise water access in growing cities such as Accra. In this sense, I have used Accra's sachet water industry as evidence to question some of the assumptions embedded in what appears to be a generally celebratory literature on

SPSPs. More specifically, I argue that sachet water, in the case of contemporary Accra, both corresponds and diverges from the theoretical assumptions. I argue that, through the alteration of the distribution process, as well as the production of a socially constructed purity, the industry is intricately laced throughout the capital's drinking-water landscape, a situation, which has repercussions on the wider regulatory and social fabric. I argue this is crucial in order to recognise the active ways in which the industry engages with and impacts Accra's water governance. Indeed, sachet producers are not passive entities, easily regulated or prohibited. More specifically, I have suggested through this chapter that sachet producers redefine the relationship between the regulatory authorities and the industry; they alter the flows of water but also the sense of legitimacy and water quality linked to government entities and the centralized provision network. Furthermore, proponents of SPSPs consensually argue that small-scale providers should be regulated. I have however sought to illustrate how problematic regulatory attempts in Accra are at present. Specifically, the informality not only of the industry, but also that of Accra's broader regulatory context, limits the possibility to regulate sachet water producers directly. While arguments for the regulation of SPSPs are oftentimes put forth, I would suggest these might rather be disconnected from the reality of many contexts in which SPSPs are flourishing.

Lastly, considering the implication of SPSPs and the ways in which they might interfere, undermine and challenge the central utility is not only insightful for questions of governance, but also for discussions around participation and engagement. As Chapter 2 highlights, the importance of fostering citizenship engagement in resource management is well recognized and a clear priority of development agendas. Sachet water might not be a community-based project such as those explored and considered by participatory

governance research or literature (e.g. water boards, water kiosks, user associations, and so on), but I would nonetheless argue that Accra's sachet water industry constitutes a way through which people redefine their everyday water access, engage with their water needs, and circumvent some of the limitations imposed by the centralized utility. This again begs the question of what is implied by participation and active citizenship. These are all questions I return too in the conclusion (Chapter 4) as I consider the implications of the processes and dynamics explored in both chapters for conceptualizations of citizenship.

Chapter 4

Conclusions: Water Access, Civic Engagement and Ideas of Citizenship

4.1 Introduction

Water access for many residents of urban Accra is a quotidian exercise of negotiating water availability, affordability, and multiple modes of provision. Through this thesis, I have explored water access in underserved areas of urban Accra – starting with the recognition that the debate has moved, both in discourse and practice, to include a focus on alternative modes of provision. Specifically, Chapter 2 and Chapter 3 offer critical analyses of two of the main alternatives for provision being debated at present: participatory water governance offering alternative points of access in underserved communities and small-scale private services providers partaking in Accra’s sachet water industry, respectively.

4.2 Summary of the Argument

In the vein of a growing critical perspective on participatory mechanisms in resource governance, I argue, in Chapter 2, that participatory water governance, in the form of LWBs in Accra, faces three sets of limits. First, several factors limit participation in water governance in urban Accra, including the reliance on voluntary labour or administrative limitations at the municipal level. Second, despite the presence of

participatory mechanisms such as Accra's LWBs, the current governance system means that the potential of these mechanisms to broker improvements in terms of access to water or more inclusive governance remains limited. Third, our understanding of participation is often itself limited to formal expressions of civic engagement in a way that might impede our ability to recognize other efforts affecting decisions over waters use and access at the community level. Many of these informal and non-recognized forms of participation might however benefit from organizational and financial support, and could, in turn, further benefit the community. As such, better recognition of participation's limits in all of these ways is significant for debates related to water access and governance more generally. Lastly, through a focus on participation's limits, the chapter also offers some thoughts regarding how participatory approaches might conflate questions of participation with questions of access. Ultimately, are participatory mechanisms about engaging local population or perhaps more about securing daily access for residents of underserved communities? Considering the latter, we must also ask participation for whom, as well as what are the implications of the need for some to engage in participatory mechanisms to secure access to water versus those for whom water security is guaranteed by their connection to the municipal network? Participation thus appears to be a deeply ambivalent concept, particularly in a neoliberal water governance context where responsibility is increasingly devolved from centralized governing bodies.

In Chapter 3, I turn to an evaluation of SPSPs and the sachet water industry currently flourishing in Accra. I argue that the theoretical underpinnings behind the enthusiasm regarding SPSPs fail to consider the ways in which small-scale providers, such as the sachet water industry, not only intersect with the water delivery landscape but are

also embedded deeply within the water governance system. I demonstrate how the sachet water industry undermines the municipal network both in its attempt to distribute water effectively throughout the capital as well as through a perception of its inability to offer good quality water to the residents of Accra. Furthermore, as all seem to indicate that sachet water is here to stay, the chapter discusses how regulations of the industry, while perhaps being worthwhile, is a laborious task for which, I suggest the authorities are currently ill-prepared, both in terms of legislative and enforcement capacity.

4.3 Participation and SPSPs: a conversation

Bridging the discussions presented in Chapters 2 and 3 is (1) interesting for a holistic consideration of water access and governance in Accra and (2) also highlights some of the tensions between civic engagement and broader notions of citizenship. In this last section, I offer some reflections and possible avenues for research that connect these concerns.

4.3.1 Concurrent approaches?

Currently, participation and SPSPs are depicted as holding great potential to address the 'world water crisis' and, as noted in Chapter 2 and Chapter 3, similar parties advocate for and support both approaches (IFIs for example). Yet, there is little in the way of conversation between the two approaches or scholarship simultaneously considering both. The reality of water access in urban underserved areas, however, clearly attests to their linkages. The approaches not only coexist in a particular moment but also compete

with each other. Recall here the episode where a vendor interviewed during the 2011 field season had separated from the LWB and now operated a kiosk privately. This vendor effectively chose to no longer engage in formal participatory mechanisms offered by the boards. Instead, he worked in small-scale private service provision (SPSP). Or alternatively consider how private vendors are, at times, able to offer water at a cheaper rate than the LWB in a particular community – both due to the commercial rate at which the LWB obtains water from the utility and the possible reliance of private vendors on non-metered, flat-fee, or illegal connections. These alternative modes of access similarly undermine the water board’s efforts to provide water in a way that involves inclusive governance and community engagement. Further still, in a different community in which the LWB relies on a tanker to provision its kiosks, the board’s tanker is often in direct competition with private tankers around filling points where all have to wait in queue, sometimes for several hours. This not only considerably reduces the number of delivery rounds undertaken in a day, but also means the board’s tanker is in competition with other tanker services in terms of water quantity, generally available on ‘first come, first serve’ basis. In all of these ways, it becomes clear that participatory mechanisms and SPSPs, while both might in themselves hold potential to address water access challenges in particular localities, are also at times in tension in ways that have yet to be articulated in the water governance literature.

Furthermore, as the attention is shifting towards alternative modes of provision to improve water access, the focus of this thesis on participatory mechanisms and small-scale private service providers (SPSPs) offers critical insights for governance debates. Specifically, I have, in Chapter 2, highlighted the ways in which participatory mechanisms remain limited in their attempt to improve water access and directly

promote more inclusive governance. In Chapter 3, I have illustrated how SPSPs such as Accra's sachet water industry interacts with and impact the centralized municipal network in considerable ways to which governance processes should be attuned. Furthermore, as the governance debates are moving towards a focus on alternative modes of provisions, such as those presented in this thesis, I have highlighted how while both approaches (participatory mechanisms and SPSPs) hold potential, they represent complex pathways for water access and the potential for their complete articulation through Accra's governance landscape, at present, remains limited at best.

4.3.2 Questions of citizenship

Furthermore, I suggest bridging the two perspectives can also provide an “exploratory theoretical lens” (Brand 2007, 617) to further query some of the tensions between the forms of civic engagement at the foundation of both approaches. In particular, it is useful to consider the expectations and theories of citizenship that undergird both the common conceptualization of participatory governance as well as that of SPSPs. While I do not propose an exhaustive analysis here, I suggest that both approaches are founded on an understanding of civic engagement in which individuals engage, in an everyday sense, with their water access.

Recent scholarship on environmental citizenship offers insights onto how we might consider the relationship between citizens' engagement and the concomitant redefinitions of citizenship (see Brand 2007; Harris 2011; Gabrielson 2008; Haggerty 2007; Latta 2007; Pine 2010). Civic engagement, as Brand (2007) tells us, results in the “constitution of a particular form of citizen subjectivity[...] – citizens' sense of themselves

and their obligations” (p.628). Brand further defines subjectivity as “an outcome of practice in increasingly urban contexts and a product of everyday experiences...or the product of one’s self” (2007, 627). Engagement through participatory mechanisms and SPSP approaches considered by this thesis thus can be understood as processes redefining citizens’ subjectivity. As explored in Chapter 2 however, we must pay attention to the ways engagement might be necessary to ensure access. Indeed, while both participatory mechanisms and SPSPs offer avenues to address inequalities in terms of water access, it is also worth considering how these approaches might also reproduce inequality in some ways. In this sense, I suggest the need for some individuals to engage with participatory mechanisms in order to secure access to services such as water delivery, while their counterparts enjoying a running tap or a connection to the network need not engage, might not do away with their inequality, but rather redefine it – their inequality remaining ever-present, translated and embodied through the process of engagement. At the same time, participatory mechanisms or civic engagement more generally, often remain the best options for underserved communities. Lastly, while certainly most would recognize the benefits of participation, and even insist on it, it also must be acknowledged that participatory mechanisms or SPSPs nonetheless fail to address the structural conditions and causes behind much the world’s water crisis. Participatory mechanisms and civic engagement thus remain rather ambivalent concepts for water governance at present.

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