Strengthening the human right to sanitation as an instrument for inclusive development

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Chapter 1. The Human Right to Sanitation and Inclusive Development under an Uncertain Future

1.1 INTRODUCTION

Over a third of the current 7.3 billion people worldwide lack improved sanitation services (Baum, Luh & Bartram, 2013) and there are spatial, group, and individual inequities in access even within countries that have presumably better records of improved access (United Nations Economic Commission for Europe & World Health Organization Regional Office for Europe, 2013). The resulting social and relational inequities and environmental degradation make the realisation of the human right to sanitation (HRS) and inclusive development (ID) pressing concerns for all levels of governance, from the international to the local levels (see 1.2).

This thesis focusing on the HRS is timely because it was only in 2010 that the UN General Assembly adopted Resolution 64/292 on 28 July 2010, with three paragraphs, that recognised “the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights;” required “…States and international organizations to provide financial resources, capacity-building and technology transfer, through international assistance and cooperation, in particular to developing countries, in order to scale up efforts to provide safe, clean, accessible and affordable drinking water and sanitation for all;” and welcomed the work of the independent expert on human rights obligations related to access to safe drinking water and sanitation, respectively (see Annex A). Immediately thereafter, the UN Human Rights Council adopted Resolution 15/9 on 6 October 2010 (Annex B), that recalled the General Assembly Resolution 64/292 and further affirmed “that the human right to safe drinking water and sanitation is derived from the right to an adequate standard of living and inextricably related to the right to the highest attainable standard of physical and mental health, as well as the right to life and human dignity” (see Annex B).

The UN General Assembly and UN Human Rights Council resolutions corrected the situation that emerged following the adoption of the Millennium Development Goals (MDGs) in 2000/2002 which called on countries to halve the number of people without access to water and sanitation services, by stating that all people had the right to water and sanitation services. The Sustainable Development Goals (SDGs) adopted in 2015 emphasize the HRWS by stating the need to ensure availability and sustainable management of water and sanitation
for all (Goal 6, see 3.2; 3.5.5). Further, in 2015, the UN General Assembly Resolution 70/169 of 17 December 2015 further affirmed “that the human rights to safe drinking water and sanitation as components of the right to an adequate standard of living are essential for the full enjoyment of the right to life and all human rights” (see Annex C). Remarkably, Resolution 70/169 marks the evolution of the human right to sanitation as a distinct right, that may or may not be linked to the right to water in practise due to the inherent similarities and differences between water and sanitation (see 1.3.1). In this thesis I only focus on the human right to sanitation.

There are three main justifications for my focus on the HRS, while making references to the human right to water (HRW) where necessary for analysis: (a) the combined scholarly analysis of the human rights to sanitation and water does not enhance the normative development of the HRS due to inherent differences between both rights that are inadvertently overlooked (Ellis & Feris, 2014); (b) scholarly research on the HRS remains limited and continues in parallel across various disciplines that address sanitation governance (Obani & Gupta, 2016); and (c) the analysis of the HRS by legal scholars has minimal considerations of the impact of HRS instruments on the drivers of poor sanitation services and the options for adopting complementary non-human rights instruments to strengthen the governance framework (Obani & Gupta, 2016).

Hence, my research seeks to contribute to the debate on the viability of the HRS for advancing ID through equitable access to sanitation services, and an understanding of how HRS instruments interact with the drivers of poor sanitation which is valuable for policy makers and development partners. It specifically explores the question: How can the human right to sanitation (HRS) be interpreted and implemented to promote inclusive development?

As a background to the rest of the thesis, this chapter highlights the real life problem (see 1.2), and theoretical challenges in the conceptualization and articulation of HRS based on the gaps in scientific knowledge which I have identified from the literature (see 1.3), formulates the research questions for the thesis (see 1.4), defines the thesis focus and limits (see 1.5), and presents the thesis structure (see 1.6).

1.2 THE RISING COST OF POOR SANITATION SERVICES

Over and above the very obvious need to enhance human dignity (see 4.3) and security by enabling access to improved sanitation services (Obani & Gupta, 2016), this section aims to
show that there is also an economic argument for providing such services. On average, every adult human being generates 250 grams of faeces and 1 litre of urine daily (Freitas, 1999). With the world population estimated to reach 8.5 billion by 2030 and 9.7 billion in 2050 (United Nations Department of Economic and Social Affairs [UNDESA], Population Division, 2015), equitable access to sustainable sanitation simultaneously poses complex challenges and opportunities for the international development agenda.

There are widespread harmful effects on humans and the environment due to poor sanitation services. For instance, poor sewage management is commonly the largest source of environmental pollution (Evans & Bartram, 2004) and water contamination which could also result in the death of plant and animal life in rivers due to lower oxygen levels (Abraham, 2011; Hamner et al., 2006). Micro-pollutants from untreated waste also contaminate food chains, leading to public health risks (Joss et al., 2006). As a result, sanitation and water-related diseases are leading causes of mortality and morbidity (Prüss-Ustün et al., 2014), and could impair children’s health, development and education (Dangour et al., 2013; Spears et al., 2013). Poor sanitation also affects human dignity (Joshi, Fawcett & Mannan, 2011), and fosters gender violence and inequities (Amnesty International, 2010; Srinivasan, 2015) and social unrest (Robins, 2014).

Further, the available data from official sources and the literature strongly suggest that the cost of poor sanitation is rising. At the international level, the economic cost of lack of access to sanitation services was USD 222.9 billion in 2015, 22% higher than the cost in 2010 (USD 182.5 billion) (Lixil, WaterAid Japan & Oxford Economics, 2016). India (USD 106.7 billion) accounts for almost half of the international loss (Lixil et al., 2016). While over half (55%) of the costs of poor sanitation result from premature deaths, an additional quarter is due to the treatment of sanitation-related diseases, and other costs are from reduced labour productivity as a result of sickness (Lixil et al., 2016). At the regional level, the Asia Pacific bears the most economic losses from poor sanitation which stands at USD 172.3 billion of the total international loss, Latin America and the Caribbean, and Africa account for about 10% of the total international loss, with Africa also having as high as 75% of its loss resulting from premature deaths (Lixil et al., 2016). Poor sanitation also leads to economic losses at the national level; from 1999 to 2008, the cost of environmental degradation in the Middle East and North Africa region (MENA) for instance, stood at an average of 3.6% of GDP with water and air being the main degradation categories (Doumani, 2014). When weighed against
the evidence that the MDGs sanitation and water targets could have been met with an annual investment of around USD 60 billion, with sanitation accounting for USD 54 billion (Trémolet & Rama, 2012), this cost differential justifies increased investment in improving sanitation services.

**1.3 GAPS IN SCIENTIFIC KNOWLEDGE ABOUT THE HUMAN RIGHT TO SANITATION**

I identified five gaps in the scholarly knowledge, following a systematic literature review on sanitation from a human rights perspective (see Chapter 5): (1) limited scholarly literature on the HRS; (2) contestations over the meaning of the HRS; (3) inchoate analysis of the drivers of poor sanitation and their interaction with the HRS; (4) paucity of indicators for measuring assessing the HRS; and (5) incoherence between the legal and non-legal literature.

**1.3.1 Limited scholarly literature on the human right to sanitation, compared to water**

There is limited scholarly literature on the HRS, compared to water; the former is often subsumed under the HRW. Both rights share some similarities, to the extent that they are essential to the realisation of other rights and human security, require capital investments in infrastructure for their realisation, and are public goods. Nonetheless, the differences illustrated in Table 1.1 support calls by scholars for delinking the understanding and analysis of the HRS from the HRW (Ellis & Feris 2014; Obani & Gupta 2016), and justify my distinct consideration of the HRS in this thesis. In practical terms, water may not be crucial for sanitation but water-intensive hygiene practices nonetheless occur in water scarce regions (Rusca, Alda-Vidal, Hordijk & Kral, 2017).

<table>
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<tr>
<th>Sanitation</th>
<th>Water</th>
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<tr>
<td>Taboo subject</td>
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<td>Adequate sanitation is contextual</td>
<td>Safe drinking water is non-negotiable</td>
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<td>Facilities are stationary</td>
<td>Facilities are stationary but water is also potable</td>
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<td>High infrastructure &amp; maintenance cost</td>
<td>Lower infrastructure &amp; maintenance costs</td>
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<td>Essential for water quality</td>
<td>Non-essential for dry sanitation systems</td>
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The relationship between sanitation and water dates back to early civilizations like the Minoan, Mycenaean and Roman, where water played a significant role with respect to flush systems and storm drainage systems (Juuti, 2007); this predates the modern day formulation
of the human rights to sanitation and water. The close link between sanitation and water further deepened with the sanitation revolution in mid-nineteenth century Britain, significantly with the publication of the Report on the Sanitary Condition of the Labouring Population of Great Britain. The report, published by Sir Chadwick, mainly presented disease carrying vapours caused by “insufficient sewers and drains, uncovered or stagnant drains, open stagnant pools, undrained marshes . . . and exhalations from cesspools” (Hamlin 1998, p.108) as the main cause of diseases and social ills including general immorality; the solution was to build universal water based systems that would wash away all the filth from the environment to be drained through sewers.

This linking of water and sanitation in mid-nineteenth century Britain gradually eliminated the disease causing vapours and reduced the cost of evacuating waste from the living environment (Hamlin, 1998). While both benefits appear to be important for public health and human wellbeing, the reforms introduced by the sanitation revolution were mainly geared towards preventing a civil revolution, maintaining the status quo of class relations and reducing the lost profits as a result of ailing workers (Hamlin, 1998; Morley, 2007). Only a few critics attributed the unsanitary conditions to a systemic violation of the rights of all British citizens rather than just the working class (Hamlin, 1998; Susser, 1993); which is similar to the essence of the HRS and the theoretical basis for linking HRS to ID in this thesis.

Nonetheless, the use of technologies for water-borne sanitation quickly extended beyond Britain, reducing the public health risks from poor waste management, and waterborne diseases are still widely perceived as the standard for adequate sanitation in many parts of the Westernised world (Kramek & Loh, 2007; Robins, 2014; Schuster, 2005). Furthermore, with population growth and increasing demand for efficient sanitation technologies in the twentieth century, the linking of water and sanitation has continued in various responses to the global sanitation crisis, including the human rights discourse (see 5.2.1) and the SDGs (see 1.1, 3.2, 3.5.5, 7.3.4). But the twenty first century has witnessed scholarly debates for and against the continued linking of water and sanitation. The alternative views uncovered from experts are that water issues may be addressed before sanitation issues due to the high cost of sewage management;¹ both can be separated to maximise funding and coverage for sanitation that would otherwise be subsumed under access to water only;² and that while it

¹ Interviewee 28.
² Interviewees 44 and 45.
would be better to address both together the appropriate response would depend on the local context\textsuperscript{3} and the expediency of combined regulation of water and sanitation infrastructure.\textsuperscript{4}

Based on the foregoing, there are three main reasons canvassed for combining the rights to sanitation and water. First, international development organisations prioritise water over sanitation projects and this makes the practise of piggybacking sanitation onto water expedient for the purpose of attracting funding and a higher level of focus (Chaplin, 2011). However, there is little evidence to support this rationale given that at the international level, the MDGs sanitation target was not achieved yet the related MDGs water target was achieved in advance of the schedule (United Nations [UN], 2017). There is also no evidence that combining the HRWS results in better implementation within national jurisdictions (Ellis & Feris, 2014). Second, sanitation is highly capital intensive but also has high indirect economic returns on investments which mainly accrue from healthcare savings (see 1.2) (Hutton, 2012; 2013; Salter, 2008; Toubkiss, 2006). However, a purely narrow economic analysis suggests that sanitation investments may not give sufficient returns to the investor and could discourage investment; HRS would therefore suffer from standing independently from the HRW which is relatively cheaper to implement (Ellis & Feris, 2014). Third, the rights discourse enriches sanitation programmes with normative content that is critical for prioritising human wellbeing and which would otherwise be missing from non-human rights based approaches.

Conversely, there are also three arguments against continued combination of sanitation and water as human rights. First, the combination makes it difficult to develop the distinct normative content of the right. For instance, the quantity of water required to meet the right to sanitation is context specific; the quality of water required for flushing toilets (and whether flush toilets are needed) is not necessarily the same as that required for drinking; and the combination does not account for the specific amount of water necessary for sanitation and hygiene distinct from drinking water needs. Second, combining both rights virtually implies the right to water for water-based sanitation services and thereby potentially undermines the relevance for people who rely on dry sanitation systems whereas the normative contents of the HRS apply to all forms of sanitation and hygiene systems (see Chapter 3) (Ellis & Feris, 2014). Third, sanitation and water differ in terms of perception (sanitation is often a taboo issue) (Black & Fawcett, 2008; IRIN, 2012); potability (while individuals can take drinking

\textsuperscript{3} Interviewees 30, 33, 38, 40, 41, and 42.

\textsuperscript{4} Interviewee 36.
water with them wherever they go, sanitation facilities are not equally potable and poor sanitation affects both non-users and the wider community (Obani & Gupta, 2015); source and responsibility for service provision (water services are commonly regarded as the responsibility of the government while sanitation is regarded as a private matter) (Pories, 2016); the cost of infrastructure and the rates of return on investments for both differ (relatively higher for sanitation) (Hutton, 2013); and while sanitation is essential for water quality, some sanitation systems do not require water for their operation (see Table 1.1).

Hence, although the HRS is still often combined with water, the purpose of the HRS extends beyond ensuring water quality to ensuring human wellbeing through health for instance. And the development of the HRS norm has continued to suffer and billions of people around the world lack access to sanitation with the current combination, yet the right to water norms have been extensively developed and water targets, including the global MDGs target, have been achieved although this is subject to debate (Bain et al., 2014). It is therefore necessary for the HRS to be analysed as an independent right to strengthen the normative content, albeit related to the right to water to the extent that this is expedient for successful implementation of HRS. The rest of this thesis therefore focuses mainly on the HRS, with reference to the HRW where necessary for analysis and illustration.

1.3.2 Contested Meaning

Sanitation services evolved as engineering or technological solutions to the public health risks resulting from excreta or waste contamination (Eyler, 2001; Juuti, 2007; Ramsey, 1994). The scholarly literature and development agenda are therefore awash with technocratic definitions of sanitation, and technical solutions and innovations. Nonetheless, access to improved sanitation facilities alone has failed to guarantee safe excreta containment (Baum et al., 2013; Irish et al., 2013), just as measuring access to sanitation solely through the use of improved facilities may not capture important environmental, economic, and social concerns that are critical for sustainable outcomes (Kvarnström, McConville, Bracken, Johansson & Fogde, 2011; Obani & Gupta, 2016). It is therefore necessary to explore a better understanding of what sanitation means and how technology can be adopted within national jurisdictions to effectively promote the HRS without compromising on ID. More so because, despite a clear set of HRS norms established at the international level least, the HRS continues to be interpreted and implemented locally using instruments that may compromise on social, relational, and ecological inclusion. The meaning of sanitation is one of the
determinants of the scope of obligations arising from the HRS, and therefore requires further investigation.

There now exist many definitions of sanitation, including basic sanitation, adequate sanitation, improved sanitation and environmental sanitation (see 2.2). Some definitions are limited to just access to toilet facilities, while others include emptying, transport, treatment and disposal of excreta. Other discourses enmesh sanitation in individual aspirations for a clean and healthy physical environment, dignity, and privacy (Joshi et al., 2011); complex interactions of culture, politics and institutions at various levels of governance (Akpabio, 2012; Akpabio & Subramanian, 2012; Chaplin, 1999); climate change (Geels, 2013; Lopes, Fam & Williams, 2012); the emerging story of Peak Phosphorus (Cordell et al. 2009); and concerns for environmental sustainability (Feris, 2015; Kvarnström et al., 2011). Therefore, the meaning of the human right to sanitation requires further investigation.

### 1.3.3 Inchoate Consideration of the Drivers of Poor Sanitation

In addition to clarifying the meaning of the HRS and adopting HRS principles in the domestic legal and policy framework, it also important to ensure that the principles and instruments through which they are operationalized effectively address the drivers of poor sanitation services. This is because the challenges of human rights realisation and human development are not confined to the legal framework (Arts, 2014; McGranahan, 2013; Obani & Gupta, 2014b; Sosa & Zwarteveen, 2016). However, there is no comprehensive scholarly analysis of whether and how the HRS addresses the drivers of poor sanitation (see 3.4). Rather, scholars often analyse the drivers that fall within their domains without reflecting broadly on how these interact with other drivers and instruments identified by other scholarly domains.

The political ecology literature from specific case studies emphasize the political, economic, and social drivers of poor sanitation and largely advocate tailoring sanitation interventions to reflect the local context and practices, rather than standardized technological responses (Aguilar-Barajas et al., 2015; Akpabio & Subramanian, 2012; Jewitt, 2011; Joshi et al., 2011; McFarlane, 2008). Nonetheless, there is still a lot of investment in technocratic engineering sanitation solutions and a significant body of literature on promoting demand for predetermined sanitation goods and services (Barrington et al., 2016, 2017; Evans et al., 2014; Jenkins & Scott, 2007). The environmental sciences and public health literature analyse the technological drivers of poor sanitation, such as sewerage connections without treatment
(Baum et al., 2013) and the limits of monitoring progress towards sanitation targets based on a hierarchy of predefined technologies (Kvarnström et al., 2011). The engineering literature emphasizes the need to eliminate challenges in the bio-physical environment (environmental drivers), like weather variability, water scarcity and the topography of the service area, which affect the operations of sanitation infrastructure (Cairncross & Valdmanis, 2006; Dagdeviren & Robertson, 2009; Ensink, Bastable & Cairncross, 2015; Schouten & Mathenge, 2010).

From the demographic perspective, growing human population and changes in the migratory patterns make it important to also consider social drivers affecting sanitation. In the governance literature, drivers have been analysed in the context of internalising the HRS by local actors, including system operators, utilities, and management boards who are directly involved in service provision but least connected to the international human rights debate (Meier et al., 2014).

The legal literature identifies the following drivers of poor sanitation: poverty, latent demand and the low prioritisation of funding for the poor (economic); unclear roles of actors (socio-political), and unsustainable solutions (technological) (Centre on Housing Rights and Evictions [COHRE], UN-HABITAT, WaterAid & Swiss Agency for Development and Cooperation [SDC], 2008). Additionally, the legal literature differentiates between the direct drivers like poverty (economic); poor maintenance, taboo and non-prioritisation (social); and weather variability and natural disasters (environmental), from indirect drivers like risk aversion, privatization, foreign debt, and sanctions (economic); population growth, weak institutions, demographic trends, and conflicts over transboundary resources (social); and climate change (environmental) (Obani & Gupta, 2016b). The analysis is however often limited to considering drivers as a justification for the human rights approach to sanitation without further assessment of the performance of HRS instruments in addressing the drivers.

Further, the drivers are not delineated according to various social contexts. For instance, technocrats and policy makers identify (un)willingness to pay as a driver of poor sanitation services (Seraj, 2008; Van Minh, Nguyen-Viet, Thanh & Yang, 2013) because it reduces the funds available for sanitation services, and this is mostly supported by case studies in formal settlements (Arimah, 1996; Rahji & Oloruntoba, 2009), informal settlements (Goldblatt, 1999), and rural areas (Gross & Günther, 2014). However, the increasing number of humanitarian situations raises the question of whether or not refugees and internally displaced persons can be made to pay for their sanitation needs, and how, but this is yet to be addressed in the literature. This is a significant gap in scholarly knowledge, especially in the light of
recent news reports that the authorities in Germany and Denmark relieve refugees of their valuables as payment for their accommodation (Dearden, 2016). This research goes further to evaluate the impact of HRS principles and instruments by positioning ID as a directional objective for the HRS. My reasons for choosing ID are further explained in my methodology chapter (see 2.4.3).

1.3.4 Paucity of Measurable Indicators for the HRS

Indicators can be described as “a question or series of questions, which assist in determining the extent to which the target has been met” (Roaf, Khalfan & Langford, 2005, p.9). I use indicators to evaluate how instruments, including principles (see 2.5.1) advance the HRS; this facilitates measuring and monitoring progress on the HRS and ensures the accountability of actors (Jensen, Villumsen & Petersen, 2014; Roaf et al., 2005). Developing suitable HRS indicators that are both contextually relevant and allow for comparison remains a policy challenge. The legal literature mainly proffers qualitative indicators but scarcely discusses quantitative indicators for monitoring the HRS.

The non-legal literature further offers a variety of qualitative and quantitative indicators for excreta containment, access, grey water management, pathogen reduction, nutrient reuse, eutrophication risk reduction, and integrated resource management (Kvarnström et al., 2011); proxy indicators for monitoring international and national sanitation targets, including the safety of sanitation technologies (Baum et al., 2013) and wastewater reuse options (Ensink et al., 2015; Ensink, Blumenthal & Brooker, 2008; Irish et al., 2013); and sanitary inspections for complementary safe assessments and identify corrective actions for water safety (Bain et al., 2014).

The indicators in the literature are often either proposed or operationalized independently, without strong links and feedback between the legal and non-legal fields to ensure progressive realisation of the HRS. It is therefore important to synergise the indicators for measuring the progressive realisation of the HRS (see Chapter 9).

1.3.5 Incoherence between Legal and Non-Legal Research on the Human Right to Sanitation

As can be seen from the previous sections, there is a growing body of scholarly literature on the HRS, by both lawyers and non-lawyers. However, the existence of knowledge does not
unequivocally mean effective application to solving real life problems because they often run in parallel, and are poorly integrated in the institutional structure (Baud, 2016). Second, the developments in the legal and non-legal literature are poorly linked in addressing sanitation governance problems in real life and therefore do not optimally influence key actors in sanitation governance (Obani & Gupta, 2016). Third, there are different discourses and types of knowledge on sanitation that are affected by legitimacy issues (Karpouzoglou & Zimmer, 2016); the outcomes may either support or contradict the HRS and therefore need to be clarified through a legal pluralism diagnostics at multiple levels of governance (Obani & Gupta, 2014b).

The non-legal literature critiques the narrow formulation of the HRW which affects the realisation of HRS norms especially for people relying on various wet sanitation systems (Joshi et al., 2011; Hall, van Koppen & van Houweling, 2014); analyses the central role of knowledge in the re-production of the urban waterscape, including wastewater (for instance, Bakker, 2003; Castro, 2004; Kaika, 2003; Karpouzoglou & Zimmer, 2016; Swyngedouw, Kaïka & Castro, 2002); assesses sanitation governance processes and the motivations and accountability of key actors (Abeyesuriya, Mitchell & White, 2007; Giles, 2012; Meier et al., 2014), even using human rights standards (Galvin, 2015); and proffers quantitative and qualitative indicators for measuring access levels (Bain et al., 2014; Baum et al., 2013; Ensink, et al., 2008; Ensink et al., 2015; Irish et al., 2013; Kvarnström et al., 2011). The non-legal literature however does not sufficiently address the HRS norms beyond a cursory consideration at best but has instead focused largely on the technological and economic aspects of sanitation services (Obani & Gupta, 2016 analyses the coverage of the HRS in the legal and non-legal literature in detail).

Likewise, the legal literature expounds on the meaning, normative content and limitations of the current HRS construct (Feris, 2015; Obani & Gupta, 2015), and prospects for applying human rights norms to other aspects of resource governance like the management of transboundary aquifers (Gavouneli, 2011). The legal literature also analyses the legal framework for the implementation of the right at various levels of governance, from the international (McIntyre, 2012; Misiedjan & Gupta, 2014; Obani & Gupta, 2015; Salman, 2014) to the national and local levels (Baer, 2015; Bhullar, 2013; Cullet, 2013; Martin, 2011; Tignino, 2011; Wekesa, 2013); and have mainly developed qualitative indicators either on the basis of existing human rights indicators or new proposals specifically tailored to the HRS (de Albuquerque, 2012). Despite the similar themes covered, the linkages between legal and
non-legal research on HRS remain feeble at best and the HRS is even sometimes seen as an extra impediment to achieving (economic) development by some professionals outside the legal field.

Nonetheless, particularly following the momentum generated by the International Year of Sanitation (2008), the International Decade for Action ‘Water for Life’ (2005 – 2015), and the various UNGA and HRC resolutions on the human rights to water and sanitation since 2010 (see 1.1, 5.2.1), amongst others, there has been increasing emphasis on mainstreaming HRS norms in sanitation programming and interventions. The sanitation target under the 2030-bound Sustainable Development Goals largely imbibes the HRS norms into the international development agenda and is reminiscent of the increasing mainstreaming of HRS norms in sanitation programming and interventions, much unlike the 2015-bound Millennium Development Goals sanitation target that was mainly focused on ‘improved sanitation facilities’ and poorly reflected the social and ecological aspects of the sanitation challenge (see 3.2).

At the national level, even countries who previously abstained from voting on the UNGA resolution (see 5.2.2) have subsequently clarified their support for the HRS, at least within their national borders (like Canada and the United Kingdom) (see Chapter 5). Meta-analysis sometimes shows marked differences in the conception of the HRS norms like participation and accountability, between lawyers and non-lawyers for instance (Klasing, Moses & Satterthwaite, 2011). Nonetheless, there are positive prospects for collaboration between legal and non-legal researchers working on HRS issues (Obani & Gupta, 2016) and the potential conflicts can be approached through integrating a common understanding of inclusive development as a directional objective for the HRS and resolving rules incoherence, as demonstrated in this thesis.
1.4 RESEARCH QUESTIONS

This thesis conducts an institutional analysis of the HRS, focusing on the effect of HRS and the instruments used to operationalize it for ID. In other words, the thesis analyses how HRS and complementary instruments to operationalize it contribute to ID. The main research question is therefore:

How can the human right to sanitation be interpreted and implemented to promote inclusive development?

The main research question is further broken into five sub-research questions about the HRS institution, instruments to help implement it and their effects on key actors given the drivers of poor sanitation services:

(i) What are the drivers of poor sanitation services and how are these currently being addressed in sanitation governance frameworks?

This sub-question contextualises the sanitation problem and establishes the background for the thesis and the linking of the legal and non-legal literature by: (a) highlighting the drivers of poor sanitation services, (b) analysing the predominantly technocratic approach to addressing the sanitation problem, and (c) highlighting existing contestations over the meaning and economic characteristics which make sanitation governance all the more complex. I address this question in Chapter 3.

(ii) How has the human right to sanitation evolved across different levels of governance, from international to local; how do the human right to sanitation principles address the drivers?

This sub-question focuses on the evolution of the HRS institution as a normative instrument for addressing the sanitation crisis at different levels of governance, and the interactions between the HRS and humanitarian law and non-human rights governance frameworks for sanitation as an indication of legal pluralism. In addressing this question, I conduct a literature review on the HRS and identify both synergies and contestations in the current state of knowledge on the HRS and the main principles for HRS and sanitation governance generally (from both the legal literature and literature from other relevant fields). I thereby also address the knowledge gap relating to limited scholarly focus on HRS, and the poor integration of knowledge from other fields in the existing legal literature on HRS in Chapter 5, having laid the foundation with my analysis of the human rights principles in Chapter 4.
This sub-question also links the drivers to the relevant HRS instruments and principles in Chapter 5. In my analysis, I go beyond the existing literature by distinguishing between the direct and indirect drivers of poor sanitation services (see Chapter 3). Such an in-depth understanding of the drivers is critical to formulating inclusive HRS instruments.

(iii) Which humanitarian law and any other non-human rights instruments, including principles and indicators, for sanitation governance promote the progressive realisation of the human right to sanitation, through addressing the drivers of poor sanitation services? This sub-question investigates other (non-HRS) instruments, including principles and indicators that are applied in sanitation governance framework, focusing on humanitarian law and humanitarian situations in Chapter 6, and other frameworks that are widely applied for water and environmental management and their performance against the prevailing drivers of poor sanitation services in Chapter 7.

(iv) How does legal pluralism operate in sanitation governance, with the implementation of the human right to sanitation, alongside non-human rights instruments and principles? This sub-question analyses the interactions between the HRS principles and non-HRS principles at different levels of governance, through the theory of legal pluralism. It highlights the quality and intensity of the interactions to show whether there is indifference, competition, accommodation or mutual support (see 5.6.3, 6.6.3, 7.4.3 and 8.6.3) between the HRS principles and non-HRS principles, at any given level of governance and the consequences for realizing the HRS and advancing ID.

(v) How can the human right to sanitation institution be redesigned to advance inclusive development outcomes across multiple levels of governance? This sub-question builds on the understanding of the operation of the HRS instruments/principles, in relation to drivers and ID, already established by the preceding sub-research questions to: (a) evaluate the performance of the HRS institution against the social, relational and ecological component of ID, (b) identify HRS principles/instruments that advance ID in my case study in Chapter 8; and (c) proposes a redesign of the less effective HRS instruments through integrating either HRS principles or complementary principles form humanitarian law and other sanitation governance frameworks in my Chapters 9 and 10.
1.5 **FOCUS AND LIMITS**

This thesis on the HRS is written by a legal scholar while recognizing that the implementation of this right involves many other disciplines and policy actors and any effort to progressively develop this right will inevitably imply moving out of the comfort zone of a human rights lawyer to engage with knowledge and policy approaches and instruments that are complementary to the HRS and help to implement it. This has informed alternating between the internal and external points of view in the research process. I adopt a panoramic view in my analysis of the HRS institution as it has evolved at different levels of governance, because although the HRS has emerged strongly from international law, its origin and development is deeply rooted in local environmental justice and water and sanitation rights movements and its application is nuanced in various jurisdictions and multiple levels of governance. My approach is therefore unique and affords me a holistic consideration of the evolution of the HRS, its current legal status, and future trajectory. I holistically investigate the HRS in relation to poor, marginalised and vulnerable groups generally, with specifics of how the drivers of poor sanitation services affect women, children, refugees, migrants, internally displaced persons, detainees, and residents of informal settlements, for instance (in Chapters 3, 5, 6 and 8). Although, I do not focus on the rights of nature in my analysis, because the HRS is mainly anthropocentric, I highlight the impact of the HRS on ecological inclusion and the need to meet human sanitation needs within ecological limits in order to ensure environmental sustainability (see 9.3.2 and 9.5).

Further, I use a case study for an in-depth analysis of the operation of the HRS and from this I obtain results that I extrapolate into my final recommendations for interpreting and implementing the HRS to advance ID (see Chapter 9). A common criticism of case studies is that the context specific character hampers generalisation. Though no set of cases can be representative enough to avoid this criticism, through the application of replication logic, elements of sanitation governance under peaceful or relatively stable conditions (like formal and informal settlements) and humanitarian situations (resulting from armed conflicts or emergencies, for instance) are considered within Nigeria, to obtain evidence of convergence, or differences in the outcomes (Yin 2009). As a result, some aspects of my results from the case study can be generally applied to advancing ID through the human rights construct in other aspects of human development beyond sanitation.
There are three main data limitations which I encountered in this thesis: (a) my use of some unofficial translations of laws and policy documents for my content analysis; and (b) my sample size which though sufficient for the purpose of this thesis may not be sufficient to draw universal conclusions on the impact of HRS institutions on ID given that there are unique local circumstances in every domestic jurisdiction across the world; (c) the covert discrimination against informal settlements in my case study which limits the generalizability to jurisdictions with overt discriminatory policies against informal settlements. I elaborate on these limitations below.

First, some of the national laws and policies used for the content analysis were in Arabic, English, French, and Spanish. I had to rely on unofficial translations in some instances but compared the results across legal databases to improve reliability. At the international level, mainly hard sources of law were assessed, while soft sources of law were also assessed where they formed evidence of customary international law. At the national level, national constitutions and laws were mostly assessed because they provide the legal basis for policy direction in domestic jurisdictions.

Second, the sample size and stakeholders for the case study were constrained by limited time, financial resources and bureaucratic bottlenecks. Though the sample size achieved for the household survey was sufficient for qualitative and statistical analysis for this thesis, the research findings would have been further reinforced by a larger representative sample size. It was particularly difficult to interview more households in humanitarian situations either because of their physical or psychological vulnerability or unwillingness to participate in the study. Otherwise, questions about affordability and accountability could be interesting issues for further research on the application of HRS in humanitarian situations. It was also impossible to set up interviews with informal service providers at the local level because they were sceptical of the research objectives and feared being identified and prosecuted by the authorities. Further, some important regulatory agencies with mandates related to sanitation (for instance, school sanitation) declined to be interviewed stating that they were not directly responsible for household sanitation services. This underscores the fragmentation of sanitation governance and interviewing such agencies may have contributed further insights into sanitation governance which could be explored in future research.
Third, Nigeria does not have a national policy covering public services in informal settlements. As such, the question of whether or not to provide/facilitate public sanitation services in informal settlements is often political and left to the discretion of the relevant agencies. This is unlike the case in some other jurisdictions like India, Brazil and South Africa which have clear national policies on the inclusion or exclusion of informal settlements from public service provision. As such, the results of my case study of HRS may not be generalizable to jurisdictions where informal settlements are expressly excluded from or included in public services. However, with the increasing recognition of HRS across various levels of governance and the far-reaching SDGs sanitation target (see 1.3, 3.2 and 3.5.5), it is expected that domestic laws and policies entrenching various forms of overt or covert discrimination against informal settlements and other vulnerable/marginalised groups may soon give way to mechanisms for universal access. Further, I augment my case study results with findings from a literature review on the performance of HRS instruments in informal settlements in other jurisdictions.

1.6 Thesis Structure

This chapter sets the tone for the thesis having established the real life sanitation crisis, gaps in scientific knowledge about the HRS, the research questions based on the gaps, and the focus and limits of my research. In Chapter 2, I elaborate on the research methodology and theoretical framework which result in the conceptual framework of my thesis. Chapter 3 contextualises the sanitation problem, focusing on the meaning of sanitation, its economic characteristics, and drivers of poor sanitation services as well as the predominantly technocratic instruments for addressing the sanitation problem. Chapter 4 generally analyses human rights principles for tackling human development challenges, as a precursor to analysing the HRS principles and instruments as they apply to formal and informal settlements, in Chapter 5. Further, Chapter 6 analyses humanitarian law principles for sanitation services in humanitarian situations and Chapter 7 analyses other non-human rights principles/instruments for sanitation governance at multiple levels of governance. In Chapter 8 I present my case study findings, and recommendations for redesign of the instruments encountered in the case study. Chapter 9 combines my key research findings, presents my conclusions and recommendations on interpreting and implementing the HRS to advance ID. The logical framework for the structure of my thesis is further outlined in Annex D. There are some substantive overlaps between the content of the chapters and papers/book chapters that
I have published in the course of my PhD research, to the extent that the papers/book chapters individually address some parts of the research questions (see p. v).