Invisible cities don't get water: urban segregation, water and sanitation provision and slum 'persistence'.

Reflection on a PhD research proposal

MSc. Minor Thesis by Giacomo Galli

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Water Resources Management group

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Minor thesis Water Resources Management submitted in partial fulfillment of the degree of Master of Science in International Land and Water Management at Wageningen University, the Netherlands

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1. Introduction

Over a year ago, when writing my research proposal for my major MSc thesis, I opened the document by reflecting on what could possibly attract me in carrying out a research in a slum. A year later, having been in to the slums of Mumbai and having written my thesis, here I am again reflecting why on earth I am planning to carry out a research within a bureaucratic organisation. Contrary to the belief of most of my friends and relatives, I actually enjoyed being in a Mumbai slum, even though I certainly was not blind to the hardships the people faced. What I really didn't like about my research (and in previous research in Lima too for that matter) were the endless queues at municipal offices and the uncooperative staff that sent me and my colleagues on a wild goose chase from floor to floor and office to office in order to obtain the right documents. I even witnessed an event where my colleagues and I were insulted by a high-ranked official for working on behalf of those living in the slums. The idea of carrying out a PhD research within such an organisation almost makes me linger again for my Mumbai slum.

However, it was exactly during the research period for my major MSc thesis, for which I engaged with slum residents, activists, bureaucrats and politicians, that I developed a fascination for the infamous Indian bureaucracy. I found the myopic and paradoxical attitude of the Mumbai municipal bureaucracy to be pivotal in explaining the phenomenon of the 'slum'. This made me realise that if I were to deepen my understanding of the slum, I had to focus my attention on the powers that govern it. In my thesis I exposed the relationship between water and sanitation and the 'slum'; this relationship is based on definitions, cultural notions and electoral politics (Galli, 2013). This made me realise that, not only would my next research have to focus on municipal governance structures, but that it would also be anchored in those day-to-day practices within these structures that shape how these relationships are established.

In a rather short period of time, six weeks, I set out to develop and structure these thoughts further by reading and discussing with academic staff from Wageningen University and UNESCO-IHE in Delft. My guiding principles in this exploratory phase have been that: 1) the insights developed and taught by the Water Resource Management (WRM) group at Wageningen University[1] (formerly known as the Irrigation and Water Engineering group) can be used and further sharpened to explain urban water phenomena; 2) water as a resource and water-networks (in all their socio-technical manifestations) shape the city in a geographical sense, and through its institutions and relationships between citizens (Castro, 2006, Gandy, 2008, Kooy and Bakker, 2008, Swyngedouw, 2004).

1.1. Slums, water and sanitation and the utilities that (don't) provide these

The proposal builds on my interest in urban water management in slums. It is estimated that over 800 million people live in slums (UN HABITAT, 2010). These settlements, also known as shantytowns, *favelas*, etc., are typically characterised by sub-standard living conditions and high population density. Slums have become the home of many urban poor who have moved from rural areas to the

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[1] Most of the teachings I refer to are based on the following works (Bolding, 2004, Boelens, 2008, Zwarteveen, 2006, Wester, 2008, Rap, 2004)

city to flee hardship or in search of higher wages. The resident of these shantytowns typically work in the informal economy, a category that ranges from street vendors to taxi drivers, maids, cooks cleaners etc.; this cheap labour is in fact pivotal in sustaining the 'formal' city. The reputation of slums is not a good one, as popular images of these, which have become iconic through films such as "*Cidade de Deus"* or "*Slumdog Millionaire*", typically only portrait poverty, squalor, violence and addiction. As more than half of the world's population now lives in urban centres, the apocalyptic images of slums have somehow come to represent the phenomenon of uncontrolled urbanisation and in a way become metonyms for the 'megacity' (Roy, 2011, see for example Davis, 2006).

In fact, the term 'slum' is rather contested (Gilbert, 2007a, Echanove and Srivastava, 2009, Echanove, 2008), as its negative connotations do no justice to the life of those living in them. In my major MSc thesis I elaborated on how the 'slum' is indeed multiple, and each material-semiotic enactment of it comes about as an orchestrated effort to suit the specific interests of the 'networks' that use this specific enactment (Galli, 2013, see also Roy, 2011). Nevertheless, I find myself continuing to use the term, as I will do throughout this document, because of the lack of more appropriate words, as well as its familiarity to the general public. A second reason to continue using the term 'slum' is that this document, and the PhD proposal it was based on, are largely based on my own experiences in Mumbai. Even though the PhD proposal is set in Maputo, my understanding of the local context is minimal at the moment. By referring to the generic 'slum' at this stage, I am able to elaborate on some general patterns; I realise that a more contextualised understanding will be developed throughout my PhD research.

In slum areas, water and sanitation is generally not provided through municipal networks. As slums are often considered illegal by the municipal authorities, no public services are provided to these areas. The people that live in slums therefore have to rely on small-scale private water providers, public fountains, illegal connections and water trucks (Kjellén and McGranahan, 2006). This water is of lower quality and quantity and far higher prices than that received by people attached to central networks (Swyngedouw, 2004). Women typically have to fetch water; for these women and children distant walks and long queues are daily chores (UN-HABITAT, 2010, Dimri, 2010). Shared toilets, open drains and even open defecation are also common phenomena in slums (UN-HABITAT, 2010, JMP, 2012); this leads to a high incidence of water-related diseases in these areas. Solid waste collection, if present, is usually organised informally. As slums are typically built on steep slopes or on low-lying areas, this also makes them prone to flooding and landslides during heavy rainfall events, which occur (bi-)yearly in tropical areas (UN-HABITAT, 2010, Parthasarathy, 2009).

Unfortunately, many of the slumdwellers facing these dire conditions have been doing so for extended periods of time, even decades. As the areas they live in are considered illegal by the authorities, and official documents are hard to come by for slumdwellers, it is almost impossible to establish a legal connection with the municipal water provider. Popular misconceptions and stereotypes, such as the idea that the poor can't pay for their water, or that they would only waste it, also helps to justify the non-provision of public services to these areas; of course these discourses could also be used to mask the fact that urban water providers regularly fail to keep up with growing demand. The underlying reasons behind this non-provision of public services could be of financial nature, legal constraints, or even political interference.

Being unable to obtain legal connections, residents of slums in Mumbai organise politically in election periods in order to bargain for informal services in exchange for votes (Anand, 2011b, Contractor, 2012, Galli, 2013). In other cities similar processes of service provision, may be mediated by other locally powerful institutions such as the church, or possibly even drug lords. These institutions may be able to fill the vacuum left by the state's absence in these areas by providing services where they are needed. Proponents of 'informal service providers' argue that small-scale water vendors and 'informal' sanitary workers are able to physically reach the poor where the state can't, for example by going into the narrow lanes of slums (Kjellén and McGranahan, 2006); or they are able to circumvent financial obstructions such as high connection fees (Bakker *et al.*, 2008); as such, formalising and capacitating small-scale service providers is also considered a possible stepping stone in obtaining universal service provision (Ahlers *et al.*, 2012).

However, I am not convinced whether this is truly a positive development. My instinctive (and perhaps also ideological) objection to pursuing this path of 'formalising the informal', is that it will fail to tackle a number of issues: first, the provided services are likely to continue to be of lower quality and quantity and higher (volumetric/unit) prices than those in affluent urban areas; second, service provision mediated by powerful institutions tends to maintain the status quo and not be considerate of minorities within slum communities; third, by formalising the informal, a *de facto* distinction in citizenship between the rich and the poor is also formalised. Furthermore, a formalisation drive that fails to take into account the constraints faced by these small-scale providers operating in a complex environment, may result only in conforming these to 'formal' service provision, without addressing the issues at hand at the municipal water provider (Ahlers *et al.*, 2012); in other words, the informal is conceived to adapt to the formal and not the other way around. For these reasons, I still believe that it more worthwhile pursuing a path of reform for urban water providers so that they expand service provision to the 'informal' areas.

1.2. The need for a praxiography of municipal water providers

A wide array of scholars has written about urban water problems and slums. This has been done from an economic and managerial perspective, reflecting on ways to efficiently run urban water providers (e.g. Baietti *et al.*, 2006, Gessler *et al.*, 2008, Hailu *et al.*, 2012, Schwartz, 2008, Swyngedouw, 2004, Lobina and Hall, 2000); social scientists and development institutions have reported the human and social consequences of non-provision of water and sanitation services (e.g. UN-HABITAT, 2010, Bond, 2008, Davis, 2006, Joshi *et al.*, 2011, Obeng-Odoom, 2011, Spronk, 2010); and geographers have described the relationship between cities and their water-networks throughout colonial and post-colonial times (Castro, 2006, Gandy, 2008, Kooy and Bakker, 2008, Swyngedouw, 2004). In these studies the urban water providers are often depicted as the 'bad guys'. These organisations are argued to be inefficient in tariff collection and leakage reduction (Bakker, 2010); they are accused of institutionalised malpractices such as corruption and nepotism (Davis, 2004, Shultz, 2009); and described to be part of the state apparatus that represses its marginalised citizens (Swyngedouw, 2004, Castro, 2006). While these and other conclusions may be valid, they are all largely based either on dehumanised data such as performance indicators (e.g. fee collection rate, leakage percentage etc.) or on the social or geographical effects produced by skewed water provision to poor urban areas. The water provider itself is rarely studied 'from the inside', as an organisation and a collection of individuals working there. Urban water providers are therefore treated as 'black

boxes' that produce a set of outcomes (*cf.* Müller, 2012); often this analysis is used as a justification for the need of reform of the urban water sector.

These insights leave me with an unfulfilled curiosity, for they do not answer the 'how' question. If leakages are rife, then I wonder why these can't be fixed without having to overhaul the whole organisation; if it is dauntingly clear that large areas in a city are unconnected to central networks, then I ask myself what are the mechanisms at work that prevent this from happening. In other words, it remains unclear to me how all the so-called malpractices of urban water providers depicted above are achieved on a day-to day basis. I also wonder if the proposed reforms, which often entail new forms of management or ownership of the utility[2], would be able to address the issues at hand if the underlying reasons of these malpractices remain largely unknown.

In my view the negative aspects of urban water providers mentioned above are not logical outcomes of these types of organisations, for there are also many examples around the world of well-functioning providers (e.g. Bogotá[3], Porto Alegre[4]). I believe that municipal providers that systematically fail to address pressing issues (be it leakages, low tariff collection, failure to distribute water throughout an entire city area etc.) have somehow evolved to this stage. Stated otherwise, there is certain internal logic behind the fact that leakages are not fixed, or that slumdwellers are not able to connect to water and sanitation services. Over time, as a municipal water provider grows hand-in-hand with the expansion of a city, this logic becomes institutionalised in routine practices and protocol. By studying a municipal water provider 'from the inside' and uncovering the decision-making process within urban water providers, my objective is to understand the internal logic (or legitimation) behind these practices.

Major cities have grown with and been shaped by their water and sanitation networks (Castro, 2006, Gandy, 2008, Kooy and Bakker, 2008, Swyngedouw, 2004). This dialectic relationship is particularly interesting to consider in the context of slums, for the non-provision of water and sanitation through central networks is pivotal in creating and sustaining 'slum-like conditions'; this interconnection is also severely linked to aspects of citizenship (*ibid*). As a result the practices within a municipal water provider are able to shape slums and societal relationships within a city. This makes it for me even more interesting to study these practices and understand the underlying reasoning and nature behind these.

1.3. About this document

This report is a reflection on a PhD-proposal I have submitted at the 2013 open call of the Wageningen School of Social Sciences (WASS). As the format of this proposal is very rigid and leaves little room for divulging on various interests and viewpoints, I have chosen to make this PhD proposal the topic of my minor thesis in partial completion of the Master in International Land and Water Management (MIL) at Wageningen University. Being a minor thesis, this report is slightly unconventional, for it does not attempt to find answers to research questions, but rather it describes the process of trying to ask the right questions.

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[2] In section 3.2 the reform processes of urban water providers are explained in more detail.
[3] (Gilbert, 2007b)
[4] (Bakker, 2010)

By combining the writing of a PhD-proposal with a minor MSc-thesis I have been able to develop a thought-out PhD-proposal to submit to the WASS assessment committee. I realised that developing such a proposal would take a significant amount of time, the flexible approach of the MIL study-programme has made it possible for me to take this time (and study credits) intended for writing a minor thesis and combine it with the development of a PhD-proposal. The result of this flexibility and self-interest has not only been the PhD-proposal submitted to WASS[5], but also the shaping and articulation of a research interest which I will describe in this document.

The objective of this thesis report is to explain some of the choices I made during the process of writing the proposal and to elaborate on some of the key concepts within it. The underlying idea is that a more thorough reflection on this proposal will help me to prepare for the assessment procedure, the research itself or (if necessary) to write a new PhD proposal in the future[6].

In the PhD proposal submitted to WASS I formulated the following research question:

How is WATSAN-provision to slum areas influenced by institutional discrimination within water-governance structures, and how do their practices reproduce the 'informal city'?

As I am writing this document after submitting the PhD proposal, I have been able to read more and further develop some of my ideas. Therefore the reasoning and concepts in this document might differ somewhat from what was originally stated the PhD proposal. Nevertheless, over the course of this report, by explaining the logic behind three different lines of enquiry that constitute the PhD proposal, it will hopefully become clear how I arrived at this research question.

This report is set up as follows: in the second section I will explain my research interest, how it has been shaped and the theoretical and conceptual tools I had at my disposition at the start of this project. I will also briefly mention the various steps I took before and during the development of the PhD-proposal to explain how my thoughts were formed throughout this process. In the sections that follow I will elaborate on the various theoretical and epistemological strands that I have explored during the development of my PhD-proposal. Section three focuses on the topic of urban water management: the challenges, the proposed solutions and the (academic) debates on these will be discussed here. Section four analyses the topic of bureaucracies and their ability to produce detrimental effects, despite the fact that its employees are by no means immoral people. A framework is then proposed to analyse the practices of bureaucrats in order to understand their standing in such an organisation. The section ends with a methodological reflection of my own assumptions and presuppositions and what this entails for my research. The fifth section analyses the links between urban governance and the existence of slums by focusing on power-knowledge networks and object formation, as well as the practices of the inhabitants of these areas. The final part (section six) discusses how I see these three strands to tie together, as elaborated upon in my PhD-proposal.

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[5] This document can be found in the Annex.
[6] At the time of writing this report the WASS ad-hoc assessment committee has not provided any feedback regarding the status of my application.

2. Steps towards writing a PhD proposal

Writing a PhD proposal at Wageningen University was never a clear-cut choice for me. I remember how, during my BSc years, I was highly critical of the fact that most of the teaching staff consisted of people which had obtained their BSc, MSc, PhD titles at Wageningen University and now were teaching the same courses to the new generation; I even called it 'academic inbreeding'. Furthermore, I was not sure (and to date I'm still uncertain) if I could study urban water problems at an university mainly known for its agricultural research; it seemed like I had already pushed my luck quite far by writing about urban sanitation in what was then known as the Irrigation and Water Engineering Group[7]. Nevertheless, a series of events and some cross-boundary writings of some of the staff linked to this group, has led to the fact that I am now applying for a PhD position at Wageningen University. In this section I will describe the events which took place and the articles that inspired me into writing such a proposal.

2.1. Initial steps

After having concluded my major MSc-thesis, I was left with a desire to not repeat this process for a while. This research had been quite intense; it was the result of an interest of mine for almost two years. After having locked myself up in my room or in a library for a considerable number of months, I wished for my minor thesis to be a more 'social' project. With this in mind, eager to share my experiences in Mumbai and convinced that the MIL-programme would greatly benefit from incorporating a socio-technical analysis of urban water problems in its courses, I set out to develop a capita selecta course as a minor thesis project. I envisioned this course to be of great benefit for students of environmental sciences, development studies and international water management. Of course, my vision of tackling urban water management issues from a (critical) socio-technical perspective within a single course, was partly informed by my own discontent of being unable to study these issues in such a manner within my own MSc programme. Nevertheless, I was (and still am) convinced that such a course would be beneficiary for the university a great deal of its students.

The choice to study urban water management from a 'critical' perspective is not a self-evident one within Wageningen University. Water management studies can roughly be divided between technical and social studies; in Wageningen the Water Resource Management Group has worked on crossing these ontological and epistemological lines, and has developed a so-called socio-technical approach. However, as research in Wageningen traditionally focusses on rural issues this socio-technical approach has not been explored much in the urban context. Within Wageningen this domain is still very much controlled by environmental engineers; in general it can be said that there is an academic division between environmental engineering on the one side and social scientists on the other when it comes to urban water management studies. Of course, each scholarly tradition within this field focuses on a different set of problems. It is my conviction that these disciplinary boundaries can, and should be, crossed.

However, as I attempted to bring scholars from different disciplines within Wageningen together to develop a course on urban water management, I noticed that crossing disciplinary boundaries is easier said than done. While all the academic staff members I talked to were interested in

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[7] Now known as the Water Resource Management Group

participating in such a course, it proved impossible to find a person or a chair group willing to carry it forward. This was partly due to bad timing, as the Water Resource Management Group was in the process of hiring somebody that could (at least on paper) develop such a course. But at a deeper level, I believe that it proved impossible because of the disciplinary segregation; I remember how a year earlier study advisors suggested to me that I should go to a different department or even a different university[8] if I wanted to study urban water management. Eventually, it was suggested to me that I would write a course outline so that the future staff member of the Water Resource Management group could use it for his/her course. Faced by the prospect of writing a document (probably by myself in a library) for somebody that was yet to be hired, who probably would not use it and possibly never read it, I chose to cut my losses and abort the project.

2.2. Choosing a research topic

Around the same time I chose to abandon my idea of developing a capita selecta course, it became clear to me that my professional interest lies in academic research. The fact that I don't believe in sweeping arguments, my critical attitude and the constant self-doubt that I have, would not make me a very suitable candidate for consultancy work or even classic development aid. As my writings apparently appealed to my supervisors of my major MSc thesis, which resulted in an exceptionally high mark, the idea considering a career in academia became more and more attractive. Obviously the amounts of open positions in the field of academic research in urban water management are quite limited, I therefore applied for what was available at the time: a PhD position in Stockholm University on "Global Urbanism", for which no proposal was necessary[9], and I chose to submit a proposal to the 2013 WASS open call.

Finding a topic for a proposal proved to be rather difficult. Upon finishing my major MSc thesis, I was left with a mental blank; up to then I always had an idea where my projects would lead me, for I wrote most of my assignment during the MSc programme with my major thesis in the back of my head. I realised that despite having different interests, I had no idea what to research, which made this minor thesis project, in some ways more difficult for me than other courses or assignments so far in the MSc-programme. My difficulty in finding a PhD topic also partly derives from the fact that I realised that this choice would be a decisive moment in my future life and career. I believe that any chosen path will automatically close off, or at least alter, other roads worth pursuing[10]. In the shorter term, such a choice also entails reading, researching, writing and most likely also 'living' a topic that requires my full attention at least for the next four years. To escape from this mental void I chose to talk various staff members and PhD candidates of the Water Resource Management Group which I consider with high regard (and were available at the time)[11].

Eventually I decided that the interests I wished to deepen are those based upon my research experience for my major MSc-thesis (Galli, 2013). During a five months stay in Mumbai, I carried out

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[8] In the Netherlands Delft University has traditionally been considered the place to go to study urban water management. This specialisation is part of civil engineering studies.

[9] I was not offered the position "in the face of such high competition".

[10] For example, I am highly fascinated by the developments in hydraulic fracturing or 'fracking', as water conflicts revolving around extractive industries are now not found only in faraway 'developing countries' but also emerging in the North America and Europe.

[11] These were (in alphabetical order) Rutgerd Boelens, Alex Bolding, Deepa Joshi, Janwillem Liebrand, Arjen Zegwaard and Margreet Zwarteveen.

an action research in a so-called 'slum'; within this context I focussed my investigations on the topic of sanitation. I use the term "so-called", because I noticed that labelling an area a 'slum', is not only value-laden, but also conducive to a certain treatment of the area (and its inhabitants) by the city authorities. From my research I also understood the central role that water and sanitation play in the defining an area as a 'slum', and how the lack of these resources/services constitute the notion of its inhabitants to be 'dirty'. I noticed how the inhabitants of the research area are trapped in a vicious circle of informality: as they are not recognised as formal residents/tenants, the municipality formally denies them water and sanitation services; lack of these services, is in turn used to define the area as a 'slum'. I also found the role of the local municipal bureaucracy to be pivotal in sustaining this state of informality.

The choice to study those in power did not only result from an academic curiosity, but also from a personal conviction. I believe that my education in basic water engineering and sociology and development studies, my ideological engagement with the marginalised, and my identity of a white, educated, middle-class male, allow me to cross bridges which may remain blocked for others; although clearly, my identity inevitably also closes other doors for me.

2.3. Exploring the field

Aside from all personal convictions, academic research builds to a large extent on what others have already published, and it also helps if others share your point of view. Re-reading some of the interesting articles I had come across during my MSc programme, I found several pieces that caught my attention and fuelled my inspiration. The following quote from François Molle and co-authors convinced me that my interest in studying the powerful institutions within water management was indeed a path worth pursuing:

"[…] the internal dynamics of hydrocracies [hydraulic bureaucracies] *remains heavily under-researched, despite a slowly growing number of studies on the topic. The reasons for the lack of organisational ethnographies of hydrocracies, studies of water resources engineers as a profession, sociologies of water agencies, and social studies of government water science, for instance, are not totally clear.[…] 'critical' perspectives in water studies have tended to 'take the water users' side', and concentrate on the study of localised water management practices and resistance to the projects of state bureaucracies"* (Molle *et al.*, 2009; p.344)

This interest to shift the focus of attention away from the water-users towards the decision-making authorities, results also from Margreet Zwarteveen's plea, which although mainly focuses on masculinities, I believe to be just as valid in the case of power relations based on race, class, caste etc.:

"[…]the critical study of the linkages between water control (powers and politics) and men/masculinities constitutes an urgent and interesting project both of feminist water studies and of studies that try to understand the cultural politics of water. This argument is based on the strong suspicion that the (discursive and real) invisibility of men and masculinity in irrigation has important political dimensions in the sense that it is one of the ways in which power presents itself as self-evident and "natural". […] Studying masculinities in a professional water context does not mean only focusing on men, but implies examining the institutions, cultures and practices that sustain (gender)

inequality (within and between genders) along with other forms of domination such as race and class. It involves questioning symbolic as well as material dimensions of power, and means working on, and recognising the connections between, the personal and the professional, the politics of institutions and the global system" (Zwarteveen, 2011; p.41)

Both above mentioned articles caught my attention, as they argue for studying organisations and institutions rather than merely policies. This fed into a curiosity I also developed in Mumbai: I found that on a single object (i.e. the 'slum') divergent policy exists; this ranges from loans for self-improvement, to repressive measures such as demolition. The choice of which policy is implemented seemed to depend to a large extent on how 'connected' the slum-community is, which is in turn heavily influenced by issues of kin, caste, religion, ethnicity and political savvy. For example, the Marathi-speaking bureaucrats I observed in Mumbai, were not at all interested in providing services to a community of Muslims from North India; therefore they chose to brand them all as illegal immigrants living in an illegal settlement. This case suggests that it is not only necessary to analyse how the various policies concerning slums have come about, but also to focus on policy *implementation*: that is *which* policy is chosen, *for what reason(s)* and *how* it is implemented. In this perspective, policy implementation is seen from the eyes of the slum dweller (*cf.* Lipsky, 1980). Seen from this light, policy implementation is what happens when a slum dweller approaches a bureaucrat to apply for a water connection.

Of course, this does not mean that the preceding process before such a moment of interaction between a slum dweller and a 'street-level bureaucrat' (Lipsky, 1980) should be ignored. Philippus Wester (2008) argues for the necessity to overcome the dichotomy between policy formulation and implementation. Instead, one should rather consider the process of policy articulation; this being *"the process by which policy actors support, modify, displace and translate a policy idea with as outcome that a policy or reform package becomes less or more 'real'"* (Wester, 2008; p.24). Also in his view bureaucracies play a crucial role in the process of policy articulation, as they determine how these are institutionalised and made routine (*ibid*). In a similar way, my research interest is to understand how certain routine practices have emerged and which series of events led to the institutionalisation of one set of actions (e.g. non-connection of slum households to central networks) over another.

Concluding, I had developed an interest to study urban water providers rather than water users, and daily practices rather than written policies. However, I still had to determine exactly *which* day-to-day practices and unwritten rules to study and *how* to study this. Over the course of six weeks I engaged in a process of reading, writing and talking to various academic staff, each selected for their expertise in a particular field (see table 1 below). I developed three different lines of enquiry, which will each be discussed in the following sections. First I set out to find the pressing issues within urban water management in a development context, this was done to get an overview of the field and to better delineate the topic of investigation. Second, I ventured into the domain of organisational studies, a new field for me, in order to understand how to study bureaucracies and practices. The third line of enquiry deepens the reasoning that the (in-)actions of urban water providers have far-reaching consequences in the shaping of slum neighbourhoods and elaborates ways on how to relate this relationship to the proposed study.

The people listed below were consulted during the process of writing the PhD-proposal. I also engaged in conversations with other academic staff[12] and with the supervisors of this report[13]; with the latter I discussed both content as well as writing strategies to streamline the PhD-proposal.

Table 1: List of consulted academic staff

Name	Expertise
dr. Michelle Kooy (UNESCO-IHE; Water Governance Chair Group)	Urban water management; Jakarta; Governance failure
Prof. dr. Dvora Yanow (WUR; Strategic Communication Group)	Organisational studies; Implementation studies; Organisational ethnography; Social science methodology
dr. Pieter de Vries (WUR; Rural Development Sociology Group)	Slums; Brazil; Peru
dr. Klaas Schwarz (UNESCO-IHE; Water Governance Chair Group)	Urban water management; Reform of urban water providers; Ghana; Mozambique

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[12] These conversations were of a strategic nature, regarding the choice of chair group where to I can possibly carry out my research: Iulian Barba Lata, PhD candidate at the Cultural Geography Group and Prof. Claudio Minca of the same chair group.

[13] Janwillem Liebrand and Arjen Zegwaard, both PhD candidates at the Water Resource Management Group

3. Socio-technical perspectives on urban water management

As described above, my initial project for a minor MSc thesis was to develop a capita selecta course on critical socio-technical perspectives on urban water management. However, I am not even sure if such a field of studies exists; if so, as far as I know it is mainly composed of the writings of a limited number of scholars (e.g. Erik Swyngedouw, Karen Bakker, Jose Esteban Castro, Matthew Gandy), their close associates (e.g. Maria Kaika, Michelle Kooy) and possibly some new generation diaspora. To my knowledge, there is not somebody within Wageningen University that I would consider to be part of this field[14]. When thinking about the capita selecta, I realised that at a certain point I would have had to describe in one way or the other how I see this field to exist. Of course I have some ideas in my head on what a critical socio-technical approach on urban water management would entail, but it is always slightly difficult when having to crystallise these ideas on paper. This section will attempt to do just that, as I will explain what I perceive to be the pressing issues within urban water management.

The section starts off by analysing the emergence and evolution of municipal water providers and elaborating on how the ideal of universalised service provision was never fully reached. Thereafter, I will discuss proposed reforms, which are often presented as 'solutions' for the economic challenges typically faced by water utilities. These often controversial reform packages lead to a discussion of the 'privatisation debate' and the reason why this has proven to be a red herring. The section ends by moving beyond this debate and discussing some of the issues that have been left unaddressed.

3.1. Historical development of centralised urban water provision

Urban water and sanitation providers have evolved from a small number of private operators to large municipally or state-owned monoliths; recently, to some extent, these have shifted towards private control and/or ownership. The process of establishing large municipal water providers started in industrial cities in North America and Europe, mainly in the latter half of the 19th century. Several factors influenced this move towards large public utilities. First, is the vital importance of drinking water to human beings. Water has to be available in sufficient quantities and of high quality, free of micro-organisms and other pollutants, in order to be safe for human consumption. Even though water provision can be realised through a number of sources such as wells and streams, as cities grow these sources often become polluted and/or unable to meet the growing demands; water was also required in large amounts for industry and fire-fighting (Tarr, 1984, Gandy, 1997). Second, the costs to develop sources, treat the water and convey this water throughout the city are quite high; especially the infrastructure such as pipes and treatment plants have high initial costs combined with a long life-span. These high initial investments, which are literally 'sunk costs', and the economies of scale, act as a barrier for various companies to operate in the same area thereby creating the conditions for a so-called 'natural monopoly' (Tarr, 1984). Third, to develop water sources from yet greater distances and construct and operate the infrastructure needed, a great deal of capital and manpower had to be mobilised. A skilled and educated bureaucracy was also needed to organise and coordinate such large-scale works. The costs for these engineering endeavours were met by issuing municipal bonds, at the time a new form of financial products developed hand-in-hand with these

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[14] This does not mean that there are no critical scholars of urban water management within Wageningen, but I consider these to be either on the 'social' or 'technical' side, not socio-technical.

works (Gandy, 2006). Fourth, increased insights on the nature of contagious diseases eventually led to the development of centralised sewer systems. Following typhoid and cholera epidemics in major British cities, Edwin Chadwick the godfather of the British sanitary movement, published in 1842 his famous "*Report on the Sanitary Condition of the Labouring Population of Great Britain"*, pleading for sanitary reforms for the labouring class in order to increase their productive output. However, the high costs of the proposed centralised water sewerage and works were long obstructed by the middle-classes which were unwilling to bear the costs for the poor. Chaplin (1999) argues that it was the fear of contagious diseases, especially cholera which also spread to middle-class neighbourhoods, as well as the fear of 'the threat from below', the notion that a working-class uprising was not unimaginable had been demonstrated by the 1871 Paris Commune, that finally paved the way for the introduction of universalised water and sanitation provision. In fact, she argues that this fear also led to the inclusion of the labouring masses in the democratic process and also the beginnings of the welfare state (*ibid*).

This model of centralised water provision was spread throughout cities around the world by colonial regimes. However, unlike their European or North-American counterparts, water and sewerage networks in colonial cities were only provided to the areas where the (colonial) elite resided. Colonial governments were reluctant to invest in universal provision of these networks as colonies were seen as places to extract profits from, not areas of large-scale investments. Urban water networks were only provided to 'civilised' sections of society, this criterion being established along racial and socio-economic lines (Gandy, 2008, Kooy and Bakker, 2008). The sections of the colonial city that benefitted from these initial investments are to date the 'formal', well-off areas such as the *Cidade de Cimento* in Maputo or the Fort area in Mumbai.

The colonial system of 'Indirect Rule' devised by Lord Frederick Lugard and the distinction between urban citizens and rural subjects among the native population (Mamdani, 1996), helped to establish urban middle-classes which became increasingly influential, especially in the post-colonial period (Varma, 2007). This resulted in a continued segregated provision of centralised water under post-colonial governments, as expansions to the existing system were made, mainly to benefit the 'modern' and wealthier sections of the city's population (Chaplin, 2011, Kooy and Bakker, 2008, Gandy, 2008, Castro, 2006, Swyngedouw, 2004). Due to financial constraints of municipalities and post-colonial states, combined with rapid population growth of cities, infrastructural expansions have been constantly lagging behind the contemporary needs; production capacity has also outpaced distribution capacity. These post-colonial expansions on the colonial networks have resulted in a perpetuation and reinforcement of colonial differentiation of 'citizen and subject' (Mamdani, 1996), both in the spatial and material sense as regarding citizenship (Chatterjee, 2004, Bakker, 2010, Castro, 2006).

3.2. Ownership and management

Maintenance costs for large-scale infrastructure, such as an extensive pipe system, are high and recurring. For cash-strapped municipalities, cutting on maintenance expenditures results in quick gains without immediate consequences. However, this does lead to a deterioration of the infrastructural assets resulting for example in increased leakages; which in turn creates a vicious cycle as physical water losses result in financial losses. Furthermore, leakages can also result in contamination of the water in the pipes. This phenomenon named 'back siphonage' or 'back-flow', is

caused by reduced pressure in the pipe which allows possible contaminations, for example from an adjacent leaking sewer pipe, to leak in the water supply network.

A second distinct feature of urban water provision is its high political sensitivity. The services provided by the municipal water operator are essential for the citizens of a city, therefore many urban water providers have been allowed to operate under financial loss. In turn, this has resulted in a financial dependency on the state. Urban water providers have therefore become less dependent on fee collection and as consequence also less interested in users' satisfaction. As the regulator and the provider are both state-owned entities, there is a classic case of the poacher-gamekeeper problem. Furthermore, political sensitivity comes together with political meddling. Staff of urban water providers is in many cases appointed through political channels, in exchange for electoral backing of the mayor. Nepotism and corruption result in further exacerbation of mismanagement and inefficiencies by urban water providers.

As a response to these problems, the urban water sector was put under pressure to reform, often through loan-conditionalities set by international finance institutions. These reforms, which can be rallied under the banner of 'new public management', were envisioned to make the urban water operators financially and politically independent and more accountable to its users (Schwartz, 2008). Regulatory tasks are to be separated from service provision; in the U.K. this was done by creating an independent regulatory body which sets controls targets, in France this was achieved through independent municipal contracts with water service providers. Revenues were to be increased through raising tariffs and cutting costs, especially through staff reduction. These reforms were foreseen to be achieved by creating (quasi-)competition in the urban water sector.

These reforms have been accompanied by a worldwide push for privatisation of water and sanitation providers. In some cases this included the selling off of infrastructural assets, in other cases it entailed a contractual agreement of operating and managing the urban water service provision for a number of years, often in the order of magnitude of 25-30 years. Other forms of public-private partnerships have also been set up, which can range from out-contracting specific tasks such as meter reading, to 'build-operate-transfer' contracts which entails financing, constructing and operating a facility (e.g. water treatment) for a period of time after which it is transferred to the public authority.

This push for privatisation, or at least increased private sector participation in the water sector, has sparked large scale debates, protests and even riots throughout the world. Proponents argue that private sector involvement increases efficiency and cost recovery, increases connection rates and allows access of capital and expertise in the sector (e.g. Franceys and Weitz, 2003, Marin, 2009, see Bakker, 2010). Opponents of private sector participation argue that: competition in water is a myth; repair and replacement of infrastructure is reduced, as long-term investments exceed contract periods; the market; increasing tariffs diminish the affordability of water for the poor; information asymmetries exist between the provider and regulator; 'cherry picking' of lucrative customers and 'social dumping' of marginal domestic ones; and that private parties have no responsibility towards the public good (e.g. Bakker, 2010, Graham and Marvin, 1994, Castro, 2008, Swyngedouw, 2005, Ioris, 2012). The contrasts between both camps are very large, and to a large extent the debates are fuelled by ideologies. I caught a glimpse of these opposed views during my visit to the 2012 World

Water Forum (where private sector proponents and representatives were largely present) and to the simultaneously organised Alternative World Water Forum (gathering place of water activists).

Although I would position myself in the camp of the privatisation opponents, I believe that a negative effect of this entrenched 'public vs. private' debate has been that there is too much attention on demonstrating the shortcomings of the opposed model and too little concern for developing meaningful alternatives. One striking example for me is the widespread use of the images and tales from the 'water war' of Cochabamba, Bolivia. This case has been heralded throughout the world as a people's victory over multinational companies trying to take over their water sources. The powerful images and narratives that came from this revolt speak to the heart and imagination of many; however, these stories often stop at the expulsion of the Bechtel-led consortium of private international water-companies from Bolivia in the year 2000. I argue that it is what happened afterwards that is the most interesting part: were the Cochabambinos able to transform the water provider into a truly democratic and participatory institution that provides water to all their fellow citizens?

3.3. Beyond the 'public-private' debate

It seems that for poor Cochabambinos living at the outskirts of town, in terms of water access, not much has changed a decade after the revolt (Shultz, 2009, Mehta *et al.*, 2013). The municipal water provider of Cochabamba, SEMAPA, is still riddled with problems, both at the process as at the operational level (Shultz, 2009). This side-step of the famous Bolivian example illustrates how the problems in connecting poor segments of the city are not solved by shifting the legal status of the water provider from public to private, and back to public again. In fact, this suggests that the problems found in urban water providers are more of institutional nature; and are engrained within the urban society.

Karen Bakker has written extensively on this topic (e.g. Bakker *et al.*, 2008, Bakker, 2010); she uses the concept of 'governance failure' to articulate her thoughts. The term 'governance' is used to highlight that decision-making is not just in the hands of the state, but rather interplay between state, market and civil society. Of course, these domains are categories with great internal variety; for example, 'market' may mean anything from huge multi-national companies to one-(wo)man water vendors that walk around the city with a cart. Second, citizens organised to a lesser (or larger) extent can exert influence on the decision-making process. However, this is not necessarily always happening through formal or 'civilised' institutions; an angry mob of protesters outside a politician's office, may well result in a water-tariff decrease.

Water governance can then best be seen as a power-field that influences water management. Bakker formulates the failure of governance as follows:

"'[G]overnance failure' occurs when institutional dimensions of water management and decision-making do not effectively take into account the needs of poor households, creating disincentives for the water supply utility to connect poor households and/or for poor households to connect to the network. The concept of governance failure thus requires analysis of the bases and processes for decision-making across the four key dimensions of water management: administration, delivery (technical services), financial and economic management, and political oversight. This formulation of

the concept of governance failure thus suggests that decision-making structures and related institutions may contain systematic biases against poor households despite, for example, officially stated pro-poor policies, and independent of the ownership status (public or private) of the water supply network and its manager." (Bakker *et al.*, 2008; p.1894)

Bakker and co-authors identify cases of 'governance failure' both on the side of the decision-makers, as on the side of poor households; as illustrated in the table below.

Table 2: Forms of 'governance failure' (adapted from Bakker *et al.*, 2008; p.1895)

The decision-making process for water management may fail to address the needs of poor households because of:	*Individual households may be subject to institutions, incentives, or other factors, which undermine their capability to connect to the water supply system*
1. Absence of consumer entitlements to basic services (e.g., lack of universal service requirement on the part of utility)	1. Tenure system (lack of clear property rights)
2. Political disenfranchisement (e.g., lack of 'voice' on the part of poor households)	2. Lack of skills (e.g., literacy) facilitating interaction with service provider
3. Culture of governance (e.g., elite-focused, top-down)	3. Cultural beliefs (e.g., appropriate water treatment protocols)
4. Economic disincentives for connecting poor households	4. Tariff structure (e.g., high connection fees)

This list and the concept of 'governance failure' provide a start to start thinking beyond the 'public-private' debate. The list above may prove to be a starting point to tackle urban water problems concerning poor urban areas, but I believe it fails to address some of the key issues at hand. I acknowledge that some of the fields in the table can be interpreted in various ways, but based on my observations in Mumbai I would argue that these aspects are not individual issues to be tackled, but part of a larger system of segregation between the 'formal' and the 'informal' areas of a city, the 'citizens and subjects' (Mamdani, 1996), or 'civil and political society' (Chatterjee, 2004). I do not agree with Bakker, when she states that the urban poor may lack 'voice' or 'skills'; in fact, in India it is the poor who vote, not the rich. As the rich already enjoy services from the state and/or are able to 'buy' these, they have no interest in partaking in electoral processes. The poor however, have no other means but their voting power to gain access to public services such as water and sanitation. Furthermore the phrase 'governance failure' seems quite elusive, for it appears to be rather apolitical. Chatterjee states: "*Governance, that new buzzword in policy studies, is, I will suggest, the body of knowledge and set of techniques used by, or on behalf of, those who govern. Democracy today, I will insist, is not government of, by and for the people. Rather, it should be seen as the politics of the governed.*" (Chatterjee, 2004; p.4)

It seems to me that to truly move beyond the 'public vs. private' debate, it must be made explicit that there is a deep-running segregation within urban society in a lot of countries. Those with decision-making powers in urban water management do not transcend this divide; the office clerks

of a municipal water provider can most likely be found on the 'formal' side of society, while the slumdwellers who are unable to connect to the water and sewerage networks are part of the 'informal' city. The poor are heavily discriminated against. Poor neighbourhoods are repeatedly referred to in derogatory terms such as 'slums' or 'land invasions'; its residents are considered to be 'dirty' and 'criminal'; and of importance for this reasoning, the poor are more than often considered to be 'parasites of society', which do not 'deserve' public services. I believe that the 'urban divide' (UN HABITAT, 2010) is fuelled by this mentality; and that non-provision of water and sanitation to the poor is a manifestation of this divide. In the following section I will return to this, as I will formulate a framework for analysing bureaucratic practices which keep this system of societal segregation in place.

3.4. Conclusion

This section has described how water provision in cities has evolved into the establishment of a system of centralised networks. I explain how the ideal of universal provision through these centralised networks was developed in European and North-American cities, but was never fully implemented in colonial cities. In colonies only the (white) elites were provided services through these networks; in post-colonial times this system of differentiated provision was perpetuated. The 'native' urban middle classes which came up during colonial times, formed the post-colonial elites which have been able to capture the majority of public services, as the poor have been left out.

I have discussed the mechanisms that result in deterioration of public water networks and high political interference in the water operator. The water operators' dependency on (foreign) loans has opened up the way for reforms of the sector, which has resulted in a large-scale drive of privatisation of water service provision. The debate that followed between proponents and opponents of private sector participation in the water sector has resulted in an entrenched discussion, which has failed to address the persistent issue of non-provision of water and sanitation to the urban poor throughout the developing world. It appears that the aspects that work as inhibitions to connect the urban poor to the water networks are of an institutional nature.

I end the section by hypothesising that the non-provision of public services to the urban poor is a manifestation of the deep-running segregation between the 'formal' and the 'informal' city, which is fuelled by a form of institutionalised discrimination of the former towards the latter.

4. Studying organisations

I realise that my view of a segregated urban society fuelled by discrimination towards the poor, which impedes provision of water and sanitation to these, is based on a limited experience. I am aware that Mumbai may be an 'extreme' city, where land and water is scarce and people are plenty; a city which despite its dependence on low-wage labour, has always been quite hostile to poor, unskilled immigrants. I also recognise that having worked with activists and residents of an informal settlement may have helped me to see the world from their perspective, leaving me with little sympathy for the bureaucrats who refused our pleas for a public toilet. Nevertheless, I still believe that these ideas are worth further thought and exploration, in another country under different circumstances. It is for this reason that I have chosen to shift my focus of attention away from those to which water isn't provided to by the centralised networks, towards studying the organisations that don't provide water and sanitation services to the former.

Studying bureaucratic organisations, and those that work within them, is not an easy task. In this section I will answer several questions that arise when formulating such a research interest. This will allow me to explore some of the implications of my research proposal. I expect to further develop these thoughts during courses of the PhD-trajectory. At this stage, this section is therefore not intended to be a rigid conceptual framework, but more a first exploration on the study of bureaucratic organisations.

My starting point will be to consider bureaucracies as organisations with emergent properties that allow for collective immoral behaviour. Paradoxically, this collective behaviour is the result of aligned practices of a number of moral employees. By relating to theory on how people and their actions are influenced by their environment, I will describe how this system of urban segregation can be kept in place by people who believe to be engaging in activities beneficiary to society. At the end of this section I will reflect on my own presuppositions and how this influences that which I plan on researching.

4.1. Studying bureaucracies

Inspired by the quote of Molle and co-authors transcribed above, I set out to find out more on organisational studies. At the time, I was pretty convinced that I would carry out a study within a municipal water provider in order to lay bare the forms of institutional discrimination that result in non-provision of water and sanitation services to slums. After all, based on my fieldwork in Mumbai, it seemed to me that the water division of the local bureaucracy would be the most logical object of analysis. But even then, when asking about the construction of a toilet in an informal settlement, my colleagues and I were directed around town from one bureaucratic office to the other. Furthermore, one of my interviewees (Klaas Schwarz) suggested to me that my focus on 'the bureaucracy' was inspired too much by my research in India; from his work experience he could tell me that all decision-making in Mozambique (where I plan on carrying out my PhD-research) passes through the ruling political party. This would indicate a need to move beyond bureaucracies and focus more on the governance structures that shape decision-making processes.

However, even though I recognise that a bureaucracy may just be the executive branch of the state, I still believe it is worth studying, for bureaucrats always have some degree of discretionary power

they can apply in their working practices (Lipsky, 1980). It is interesting to consider how this discretionary power is used and in which circumstances. What particularly fascinates me is how the system of urban segregation between the urban haves and have-nots is kept in place through the bureaucracies. Above, I stated how I believe this urban divide to be fuelled by 'institutionalised dicrimination'. This view needs to be nuanced a bit for bureaucratic organisations may be staffed with people, who at an individual level do not feel that they are doing anything wrong; they might even be sympathetic towards the hardships faced by those living in the slum. Zygmunt Bauman, in his analysis of the Holocaust, also describes this peculiar paradox as: "*the ability of modern bureaucracy to co-ordinate the action of great number of moral individuals in the pursuit of any, also immoral, ends.*" (Bauman, 1989; p.18).

I must admit that I usually refrain from making Holocaust analogies. In European and North American context the series of events that took place in this period are seen as the absolute evil. To compare any other issue to these events is rather dangerous, because it usually only leads to a discussion whether the current evil can be compared to the past evil, thereby leading all attention away from the topic at hand. Nevertheless, I still see value in using Bauman's analysis because he is able to consider Modernity and bureaucratic organisations, not as something inherently good, but also capable of committing horrendous atrocities. Both the ability to do good or commit evil are the result of emergent properties of bureaucratic organisations. This view is interesting, because for a long time, especially according to a Weberian analysis, the bureaucracy was considered by many to be the apex of human progress. Admitting that the same capacities that had made bureaucracies able to rationally organise and divide labour and responsibilities, were just as capable of the extermination of millions, as they could be used to build engineering masterpieces, was an unpalatable truth for many. (Bauman, 1989)

In Bauman's view the Holocaust was only possible because of 'Modernity', not despite of it. The systematic killing of millions of Jews was not possible based on outbursts of violence fuelled by rage, such as in pogroms; it had to be organised and rationalised by a modern bureaucracy and facilitated by scientific and technological advancements. He also argues that to make it possible for humans to hurt others on such a vast and repetitive scale, moral indifference had to be socially produced. He identifies three conditions that were able to erode moral inhibitions during the Holocaust: 1) *authority,* violence had to authorised by others; 2) *routinisation*, the work had to be made routine; and 3) *dehumanisation*, the victims had to be made seem less than human. The act of killing itself depended on three processes. First, the act of killing had to be mediated, relating to the fact that in a long chain of events each person can distance his/her own actions from the final outcome. Second, by killing from larger and larger distances, or behind closed doors in the case of a gas chamber, victims were made physically and psychologically invisible. Third, by making the humanity of the person disappear, the act of killing was made comparable to that of getting rid of bugs. (Bauman, 1989)

 With this analysis present in the back of my mind, without resorting to comparing the scale of atrocities committed, it seems to me that some analogies can be made regarding to the urban segregation of slums and those living in them. One aspect of great importance for this system of segregation is that of *othering* the poor. This is dependent on a number of factors. First, the psychological distance between the formal and informal is huge. I remember talking to middle-class friends in Lima and Mumbai that may have travelled abroad, but never have set foot in a local slum;

especially in Mumbai this is striking because slums and million-dollar flats can be literally located next to each other[15]. The people living in slums may however come in the house of the middle-classes to clean and cook. Second, I observed how characteristics of a slum, which in itself are quite normative, also came to constitute the identity of those living in them. For example, if an area was considered illegal by the local bureaucracy, then so were the people living in it; these were often labelled 'illegal Bangladeshis'. There are even cases of the state of 'informality' being ruled in a court of law based on appearances (Ghertner, 2011): if it looks illegal, it must be illegal (and vice versa). Third, the poor and the areas they live in are constantly being referred to in derogatory non-human terms (e.g. 'encroachers' in Mumbai), or even by evoking sentiments of hostility (e.g. '*invasiones*' in Ecuador (Swyngedouw, 2004)). In some cases the poor are even made to be inexistent, for example by portraying the areas they live as blank spots on municipal maps.

Other features of critical analysis of bureaucracies which can be compared to the governance of slums are: *routinisation,* as all decisions are made on the basis of blueprints and established guidelines (exceptions can however usually be mediated through payment of bribes); *mediation,* as indeed all decisions and actions are considered to be just a cog in the web; and *authorisation*, as bureaucratic actions are merely seen as the execution of rules and legislation. This also requires the presence of a legislative framework to justify these actions, for example in the form of policies which state that no water shall be provided to illegal settlements (see for example Government of Maharashtra - Department of Urban Development, 1996).

Of course, juxtaposing the Holocaust with the demolition of slums does create some problems. When Bauman writes about 'moral'and 'immoral', it is easy to relate to for the reader as the Holocaust is generally considered to be the climax of absolute evil. While I may consider the practice of demolishing slums or denying water to those living within them to be immoral, I can also understand that many do not. Morality is of course not some absolute value, but socially constructed. However, evn though those who demolish slums may see themselves as 'good employees', I find it hard to believe that they are not aware of the effects of their actions. The following sub-section will relate to this peculiar duality.

4.2.Studying practices

From the sub-section above it would almost seem that any bureaucratic organisation is some sort monolith capable of committing the worst atrocities. This view has to be slightly nuanced, for despite the process of achieving 'moral indifference' through coordination, mediation etc., any organisation is eventually dependent on the actions of a number of individuals. Despite having to work within a certain structure and the obligation to obey orders to maintain one's position, there is always some degree of agency and discretion in someone's job. Numerous sociologists have written about the 'agency vs. structure' debate and the relationships between the two; of course part of the process of obtaining a PhD degree will revolve around reading and incorporating these theories in my own work. At this stage, I will mainly continue to reflect on some of the peculiarities involving individual actions and bureaucratic structures.

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[15] Similarly, I have rarely visited so-called 'bad neighbourhoods' in Amsterdam, my hometown.

Even though there are structures in place within a bureaucracy that favour a set of action over others and even render the process of carrying out immoral practices easier (as argued in the previous sub-section), I still believe that individuals are knowledgeable and capable actors, able to make their own choices. However, even the term 'bureaucrat' has a negative connotation in a Western European context; often it is used to describe somebody working by fixed routine without exercising any form of intelligent judgment outside the narrow scope of the rules. It appears to me that there are a number of factors which explain and favour this attitude and manner of working. First, bureaucrats do things in a certain manner because they have learned through experience that this works best; this judgement may be based on conflict-minimalisation, career advancement etc. Pierre Bourdieu (1977) uses the term of *habitus* to describe how practices are largely structured by historical experiences and cultural dispositions. Second, many bureaucrats will honestly believe that they are doing the right thing. In their view the system of private property is worth defending against the squatters and encroachers that trespass it. This view is rarely argued from an ideological position, nor is it questioned in public. Rather, it originates from dominant discourses and is reproduced through powerful institutions such as the school system. To a certain extent even those living in slums may believe that they themselves are behaving incorrectly (Ghertner, 2011). In his "Prison Notebooks" Antonio Gramsci theorises this process of internalised domination as 'cultural hegemony' (e.g. Gramsci, 1995); analogies can also be made with Michel Foucault's 'normalising power' (e.g. Foucault, 1977). Third, and related to the former two, is the aspect of professional identities. Municipal water providers are comparable to hydraulic bureaucracies, or 'hydrocracies' (Molle *et al*., 2009); the ranks of these are largely comprised by civil engineers and city planners, the majority of which are male. The decisions made by these are informed by a certain mind-set reproduced through universities, hierarchical traditions and male-dominated professions; this can be labelled 'professional normalism and masculinities' (e.g. Chambers, 1992, Zwarteveen, 2011).

A second aspect of interest when carrying out a praxiography of an urban water provider is to understand how slums are generated through bureaucratic practices. Objects do not exist in and off themselves, but only through multiple situated practices (Mol, 2002); in other words, material realities are shaped through the alignment of discourses and practices. Such an alignment can be very precarious or extremely durable, dependent on its material, discursive and strategic stability (Law, 2009). Different practices can result in different realities, giving way to the multiplicity of a single object (Mol, 2002); this is just as much the case for slums as it is for disease of the lower limb (Galli, 2013). In other words, the notion that an area is considered an illegal slum and not a poor neighbourhood can only result from an aligned set of discourses and practices deployed by certain actors. What is interesting to consider here, is how one materialisation of slums, generated through bureaucratic practices, proves to be durable and also dominant over other possible manifestations. Furthermore, it is also worthwhile to consider which 'collateral realities' (Law, 2011) are being generated alongside this particular materialisation. These collateral realities are shaped along the way, for example when a municipality categorises a slum in a certain way (or even when I describe the municipal water provider) its residents are brought under a certain category. Often seeming irrelevant, these collateral realities may also generate unintended effects: in Mumbai, old *koliwadi* fishing communities were classified as slums, resulting in the fact that all its residents could be potentially evicted (Sharma, 2000).

Studying practices also allows developing an understanding of an organisation other than is generally assumed. By focussing on practices the black box of an organisation can be opened, generating empirical material which can be rather unruly and defiant of dominant representations (Müller, 2012). For example Joris Luyendijk, in his work on the London finance sector, has shown how the banks have become "too big to manage"; contrary to what most executives make us believe, he concludes that *"employees at the big banks themselves do not believe their top people know what's going on"* (Luyendijk, 2013). In the water sector, research has shown how large hydrocracies are able, quite remarkably, to come out bigger and stronger from reform processes that were intended to reduce their size and power (Wester, 2008, Suhardiman, 2008). The case from Cochabamba depicted above (Shultz, 2009, Mehta *et al*., 2013), suggests that the municipal water sector is no different than the irrigation sector in this perspective; a municipal water provider is apparently able to carry on with the same practices of urban segregation, political entanglement and cronyism, even after a popular uprising has changed the management structure and ownership of the organisation.

More than thirty years have passed since the 'International Drinking Water Supply and Sanitation Decade' (1980-1990). It can safely be concluded that external-led reform processes have also not been able to bring about to substantial changes within urban water management (JMP, 2012)[16]. The French even have a saying *"plus ça change, plus c'est la même chose"* (the bigger the change, the more it remains the same)[17]. A focus on practices makes it possible to understand how externally imposed change is effectively neutralised inside an organisation.

4.3. On methodology

A report based on a PhD-proposal is not complete without some reflection on methodology. Here I will make a distinction between methods and methodology; I consider the former to consist of the variety of tools and techniques of data-gathering (which I shall not elaborate on in this document), while the latter consists of the epistemological and ontological foundations on which the study is based (Haverland and Yanow, 2012). I believe that a brief discussion on the philosophical underpinnings of my proposed study will allow me to explain my work better to others; it will also help me to avoid the trap of 'taking aspects for granted' which can be common when working for a prolonged period within the same research group (*ibid*).

In the previous sections I have avoided the term "hypothesis". Although I believe that a segregated urban society fuelled by institutionalised discrimination is at the basis of non- or reduced provision of water and sanitation services to the urban poor, I have avoided the term, for it creates the illusion that discrimination is an independent variable which influences a dependent variable (water provision). This illusion is also rather elusive for it suggests that an independent variable can be somehow modified in a way which will result in a different form of water provision. Rather, I believe that such a change is only possible as part of larger processes of change in society.

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[16] In absolute numbers, more people residing in urban areas lack safe water and sanitation in 2010 compared to 1980. However, the world population also grew in the same period; the percentage of those lacking safe sanitation has diminished by 3 percentage points, while for water this has increased by 1% (JMP, 2012; p.12 and p.24).

[17] In Italy a similar quote can be found from *Il Gattopardo: "se vogliamo che tutto rimanga come è, bisogna che tutto cambi."* (If we want that all remains the way it is, it is necessary to change everything) (Tomasi di Lampedusa, 1963; p.29)

My view of practising science is not one where I act as an independent external researcher which describes reality in an 'objective' manner. Quite the opposite, I am informed by a social-constructivist approach which deems it impossible for any researcher(-community) to separate 'knowledge' and 'truth' from his/her/their own cultural and social background. My own analysis on urban water management, bureaucracies and slums is of course situated within certain bodies of knowledge, personal beliefs and experiences. This implies that I am neither a neutral nor an objective researcher, a position which I would consider to be impossible to attain to in any case, especially in such a politically-laden topic such as slums and water provision to these.

Ideally, at this point I would give an overview of the work published by the various philosophers, sociologists, feminists, anthropologists historians and political activists[18] that have shown that the idea of a 'true' knowledge 'out there' which can 'objectively' be known is a fallacy (e.g. Kuhn, Foucault, etc.). Similarly, I would elaborate on the publications of those that argue that the production of knowledge is in itself a situated practice, which cannot be seen independent from the social and cultural values of those that produce it (e.g. Haraway, 1998; Latour, 1991; etc.). My choice not to do so at this stage does not result from laziness or arrogance. Unfortunately, I have to admit that my reading of these seminal works is very limited; one of the great flaws of a generalist socio-technical education is that most theory is used functionally and therefore only scratched at the surface, with little time available for deeper analysis. In fact, one of my reasons for wanting to enter a PhD trajectory is to be able to read and reflect more on these epistemological matters. As for now, I am merely able to 'stand on the shoulders of giants' and acknowledge that my epistemological position is mainly influenced by senior staff members from my own research department which have shown how post-positivist thought influences water management (e.g. Zwarteveen, 2009, Boelens, 2010).

Several inter-related insights from this post-positivist thought, as used in (urban) water management are worth mentioning here. First, the notion that knowledge is situated (*cf.* Haraway, 1988) is crucial in the domain of water management. As water relates to so many social, cultural and religious dimensions, and it is in fact necessary to sustain any life form, it cannot be analysed separately from its uses and users. Second, water-networks cannot be distinguished to be social or technical, but should rather be considered as socio-technical hybrids (e.g. Bolding, 2004, Swyngedouw, 2004). Third, water control is intrinsically political and therefore any representation of water management practices is therefore just as political (e.g. Boelens, 2008).

How does this relate to my research? First, I have already made explicit that I oppose private ownership of municipal water providers. Regarding private management of utilities to a lesser or greater extent I also have strong reservations, but would probably evaluate it on a case-by-case basis. However, this does not mean I am blind towards the ineptitudes of publically owned utilities; neither would I be unwilling to see positive traits in private water provision. Second, as it has become clear throughout this document, I am a proponent of water and sanitation provision through centralised networks to the urban poor. I acknowledge all the shortcomings and I realise that many small-scale operators achieve provision where all others fail or choose to ignore; nevertheless, I still have faith in the 'universalised provision' model. This faith is based on the fact that centralised provision can control quality and quality issues were small providers may not. More important, I

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[18] I am well aware that this list is not exhaustive and the categories overlap to a great extent.

believe that gaining access to centralised networks is a material emblem of full citizenship; a two-tier system will only help to reinforce existing segregation within a city. I realise that my towards these assumptions may change as my studies proceed; this will require some reflecting towards the end of the PhD period.

Perhaps paradoxically opposed to my faith in centralised provision, is my view that public housing and city planning should not only be organised through the state. By this I mean that in the case of slums, the poor have managed to build housing through individual and communal efforts where the state and the market both have failed. In my view, a municipality should support these efforts rather than violently oppose them through declarations of illegality and even demolitions. Similarly, I am not a big fan of bureaucratic quicksand and, as explained earlier, I believe that some of the effects produced by bureaucratic practices are highly immoral; nevertheless, I do not consider those that work in a bureaucracy to be immoral persons. It highly likely that, throughout my research, as I interact more and more with municipal bureaucrats, my position towards these will change somewhat. This will make this document again useful for reflecting on, during on even after my research period.

Furthermore, I am convinced that academic research should (at least to some extent) pursue societal goals; for me, this means that my research is preferably embedded (again to some extent) within larger movements of social struggle. I believe that to write about slums (or any other subject for that matter), one should have some idea what the wishes and demands of these people are, if only to prevent some fetishized representation of 'the poor slum dweller'. This will mean that I will look for and interact with groups that are working towards improving the position of those living in the slums, as I have done earlier in Mumbai. Of course, as a researcher and person with my own moral values, I have obligations to report findings, even where they may not fit within my theories. It is worth repeating here that my goal is not to scapegoat municipal water providers or other dominant urban (water) institutions; neither do I set out to romanticise the struggle of the poor. My objective is to understand *how* the urban poor are excluded and possibly figure out ways of how to work towards inclusion of these. In the following section I will already explore some possible mechanisms which lead to this urban segregation.

4.4. Conclusion

This section has outlined the ingredients for a possible framework to study bureaucratic organisations. By relating to Bauman, I have described various mechanisms that allow bureaucratic organisations to achieve highly immoral ends. Fascinating enough, these mechanisms of achieving 'moral indifference' by the employees are what typically allows bureaucracies to make rational decisions and be highly effective in reaching their desired outcomes. In relation to the governance of slums these same processes of *authority*, *routinisation* and *dehumanisation* are taking place. The paradox lies in the fact that if an organisation achieves immoral ends, those working in it need not be immoral persons. By relating to sociological theory, I have attempted to describe how a focus on practices and appreciating the societal and cultural background of those working in a bureaucracy, allows to develop an understanding of how a system of urban segregation is kept in place. I have described three possible factors of importance that influence practices: *habitus*, 'cultural hegemony' and 'normal professionalism and masculinities'. A focus on practices also allows developing an understanding on how bureaucracies remain in control during reform processes and how their

enactment of what they govern (e.g. slums) become the dominant paradigm. Finally, I have described my own position towards studying municipal water providers and their employees. Where possible I have tried to relate this to post-positive thought and describe how this influences what I plan to research.

5. Slum persistence

After having established my reasoning for the necessity to conduct a research within a municipal provider and having explored some ways on how to go about this, I will now turn to some larger questions and possible implications of my study. These are related to some basic questions revolving around the ontology of 'slums' and the role that municipal bureaucracies play in governing these neighbourhoods. Slums can be found all over the world and throughout history; although fascinating objects, I am perhaps not so much interested in how slums come to be as much as how they continue to exist. Slums are not necessarily found in distant outskirts of towns, but also near wealthy neighbourhoods and posh buildings. Because of the need for cheap labour, the growth of a city goes hand in hand with the growth of slums. However, the fact that slums remain slums over the course of decades, trapped in informality and poverty, suggests that there are some factors impeding development of these areas. In this section I will relate to some of these factors and reflect on how my proposed research can latch on to these.

5.1. The 'slum' fallacy

During my stay in Mumbai, I came in touch with a group that challenges the dominant view on slums[19]. Their view is that the use of the term 'slum' is a fallacy, for the definitions the term is based on are all-inclusive; if taken to the letter it would result in formal neighbourhoods also to be dubbed slums (Echanove, 2008). Furthermore, the term 'slum' denies the existence of historical villages/neighbourhoods within a metropolis and is misused to allow for a single model of redevelopment based on building huge flats where now small lanes filled with shops, homes and even factories can be found (*ibid*). This group posits that slums are not only places of squalor and misery, but actually sites where people struggle for prosperity, developing small businesses and building houses, against all odds. Reflecting on my own city of Amsterdam, I can imagine how many of the current posh neighbourhoods were probably considered slums not long ago. Looking at the street I live in and some immediate surroundings, I can clearly see how the historic character of a neighbourhood can be completely ruined by modernist visions of urban development.[20]

A second term which is often found in close proximity to 'slums', especially as used by municipal authorities, is the label of 'informality' or even 'illegality' concerning a construction or entire neighbourhood. These labels result in unclear categories, for it rests on the assumption that all urban planning is (and should be) carried out by municipal authorities. This may sound logic in a Western European perspective, but it is very well imaginable that this model of development is not very practical in areas where the state is not highly present, or where there is a conflict between residents and the state. This has happened over and over again in Mumbai, for example in the case of Dharavi which originally grew from an area especially appointed for those that were evicted from the wealthy part of South Mumbai (Sharma, 2000). However, as the city grew and land prices skyrocketed many long-term residents have found themselves living on a stretch of land that the state would like to 'develop' for high-end residential and business purposes (Patel and Arputham, 2007).

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[19] See urbz.net; urbanology.org; and airoots.org
[20] The Nieuwmarkt/Waterlooplein neighbourhood of Amsterdam, a centuries old area, was largely redeveloped from the 1950s onwards.

The formal/informal and planned/unplanned divide seems highly unsustainable in a place like India, where many of the so-called 'modern' buildings are judged to be 'formal' based on aesthetical values, where in fact they can be developed without the necessary permits (Ghertner, 2011). Similarly, sustaining the notion that tenants in the wealthy South Mumbai who have overstayed their 99-year lease are named 'occupants', while those that live in a slum are 'encroachers' (Echanove; personal communication), makes me suspect the presence of political-economic powers that benefit from this inaccurate distinction.

Keeping the dichotomy of formal/informal in place does not occur naturally, nor is it sustained by itself; this requires an orchestrated convergence of various practices by different actors. In Mumbai even special legislation is put in place towards these ends; the Maharashtra Government Circular explicitly stated that illegal settlements shall not be provided with water (Government of Maharashtra - Department of Urban Development, 1996); an active role of urban bureaucracies which do not provide official services[21] to settlements they deem illegal (Anand, 2012, Contractor, 2012, Galli, 2013); and Janus-faced politicians which favour 'big business' and private urban development over basic service provision for the poor, while conceding informal services to slum areas they rely on as vote-banks (Bhide, 2009, Nijman, 2008, Anand and Rademacher, 2011).

5.2. Approaches towards informality

There is of course a danger in the confluence of 'informal' and 'slum' or even 'poor'. There are a vast number of 'legalised' or 'formal' slums and even many cases of new 'world-class' shopping malls and even entire neighbourhoods which are built 'informally' (Roy, 2011). The difference however is that some forms of informality are considered illegal and repressed while others are legitimised (Ghertner, 2011). Ananya Roy therefore considers informality as an "idiom of urbanisation" (Roy, 2011; p.233) and should therefore not be treated as an anomaly but as a path of urban development. While acknowledging this view, I still believe that there is a need to specifically consider this condition of informality. To do so, I will refer to some theoretical and practical work on the theme; this list is not exhaustive and shall be expanded over the course of my PhD research.

According to Keith Hart, the 'informal' develops as such for very logical reasons; however, the typical reactions of a weak state regarding informality are either to consider the informal illegal or keep a hands-off approach (Hart, 2010). Hart describes how the formal and informal economy are severely intertwined and distinguishes four different relationships between the two: a *division* between paid and unpaid work, domestic and private etc.; informality allows for specific *content* which formal rules cannot, for example through the use of personal judgement of a situation; the informal also relates to the formal as its *negation*, by rule-breaking and illegal activities; and the informal is what is outside the bureaucracy, or *residue*, for example in the case of customary law or legal pluralism (*ibid*).

Some, such as Hernando de Soto argue that the there is a need to 'formalise the informal', for example through land titling (e.g. De Soto, 2003). In this view, the main problem of informality is that private property is not registered and therefore cannot be used for entrepreneurial purposes; registering land would make it possible to access legal protection, use it as collateral for a loan, etc.

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[21] I use the word "official" because the same bureaucrats may be complicit in providing 'unofficial' services.

This approach is rather simplistic for it places a blind faith in the market to solve problems of poverty. It is also a very limited view of property as comprising transferable and individual ownership rights (*cf.* von Benda-Beckmann *et al.*, 2006).

Others counter the notion that the state or market should be the driving force behind lifting the veil of 'invisibility'; they value a more community-centred approach, where the residents of an area organise themselves and generate their own (data on their) neighbourhood (e.g. Appadurai, 2001). This has for example been achieved through community-based enumerations (Arputham, 2012, Patel *et al.*, 2012) and the development, operation and maintenance of communal toilet blocks in slums through a participatory planning approach (Burra *et al.*, 2003). Of course, such processes are rarely spontaneous. They are often pushed for by large NGOs, which benefit by portraying the slum community in a certain way and monopolising their position as representatives of all slumdwellers towards development aid institutions. (McFarlane, 2004, McFarlane, 2008, Sharma and Bhide, 2005, Galli, 2013)

5.3. The role of the bureaucracy

So how do bureaucracies sustain this division between formal and informal and legal and illegal? For this I turn to the definition of a 'slum' used by UN-HABITAT which I criticised in the previous sub-section:

"A slum household consists of one or a group of individuals living under the same roof in an urban area, lacking one or more of the following five amenities: (1) durable housing (a permanent structure providing protection from extreme climatic conditions); (2) sufficient living area (no more than three people sharing a room); (3) access to improved water (water that is sufficient, affordable and can be obtained without extreme effort); (4) access to improved sanitation facilities (a private toilet, or a public one shared with a reasonable number of people); and (5) secure tenure (de facto or de jure secure tenure status and protection against forced eviction). Since information on secure tenure is not available for most countries included in the UN-HABITAT database, however, only the first four indicators are used to define slum households, and then to estimate the proportion of the urban population living in slums." (UN-HABITAT, 2010; p.33)

The first of the stated conditions only seems to apply to newly-established slums (older ones are usually made up of more 'durable' materials) and the second is a highly dubious (it is not uncommon for large middle-class families to share a room); however, it is the latter three conditions which I shall delve on. These conditions (water, sanitation and tenure security) are not necessarily related to households decisions or actions like the former two, but they are a direct result of the state or municipality's (in)actions. This leads to a classic 'chicken or the egg' discussion: is a neighbourhood repeatedly demolished because it is a slum? Or is a neighbourhood a slum because it gets repeatedly demolished? The same applies to water and sanitation; for a neighbourhood is considered a 'slum' because it is not provided with water by the municipality, but the municipality cannot provide water to a neighbourhood because it is a slum.

If denied basic services by the municipality, it is not strange that slum-residents access water through 'informal' ways, practice open defecation and rely on local 'protection' from evictions. In some ways, the agencies responsible for urban development are also impeding self-development to come about.

It is important to make clear here that I am not stating there are no real issues of poverty, illness, violence etc. in slums; but I do believe that there is a conflation of 'the problems in slums' and 'slums as a problem' (Echanove, 2008).

It would be naïve to think that the role of the municipal bureaucracies is just limited to a denial of basic services. The municipal water provider also plays a pivotal role in providing the very same services it denies to slums in an illegal/informal manner. For example, water which is informally provided to slums in lower quantities, of dubious quality and for a far higher price (Swyngedouw, 2004) than formal provision, often originates from the very same sources as that used for the centralised networks. This water is sold to local 'water mafias' and is registered in the books as being unaccounted for (e.g. leakage etc.); meanwhile politicians and local slumlords mediate the contacts between residents that apply for such informal connections and the municipal utility (Anand, 2011a, Anand, 2011b). This two-faced role of the municipal bureaucracy results in the fact that the public utility can maintain its discourse of legality, disconnections and even demolitions; while at the same time it sells public services behind the counter at a multitude of their original price. The patron-client relationship between the bureaucracy and slum residents[22] is then kept in place even as the palms of the former are being greased by the latter. One of the issues that the proposed study will attempt to shed some light on, is the extent to which the formal/informal divide is actively pursued by individuals working in a bureaucratic office, or whether it largely results from the orchestrated actions of a bureaucratic organisation.

5.4. Invisible cities

The role of municipal bureaucracies in governing slums is particularly interesting because it rests on a peculiar paradox. In many cases, as slums are considered informal and/or illegal, they are not officially 'known'. Slums do not appear on city maps, nor is accurate data on its residents available to the municipal bureaucracy. To some extent, slums are therefore 'invisible'; yet their presence in the city can hardly be obfuscated. It is very possible that even a bureaucrat of lower status or even a policeman may live in an 'illegal' slum.

The question which then arises is: why are slums kept invisible in the eyes of the state? And how can the state govern that which is invisible? This question is particularly interesting because most theory on state power, inspired by Foucault, argues that for the state to exert power over its subjects (or resources) it has to make them 'known' through categorisation. I believe that there are two co-existing explanations for this phenomenon. First and foremost, it can be argued that by categorising slum areas as 'illegal' they are also made known. By choosing to see what it wants to see, the state can exert power over a certain area by devising schemes that fit this simplified vision (*cf.* Scott, 1998). Demolition of a slum is a suitable answer from the state that wants to demonstrate its power over its unruly subjects. However, many slums are also able to exist for decades; this would then indicate that the state is not that all-powerful as it claims. I believe that is best explained by arguing that 'official ignorance' appears in some cases to be just as important in consolidating the state's power (Mathews, 2005 2008, Anand, 2011). The state chooses not to see that slum residents actually

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[22] In Mumbai, I witnessed how a high ranked official insulted some slum residents in their face, declaring that these were illegal Bangladeshis which did not "behave properly"; what struck me the most was how the men that were insulted sat through the official's tirade without reacting to it in any way (Galli, 2013).

pay V.A.T.[23] just as any other citizen; that the contribution of the 'informal' workforce is crucial in sustain the 'formal' economy; that those who live in the slum are not 'illegal' residents, but actually registered voters; and that those 'stealing' water are being facilitated by the state itself.

I believe that there are several inter-related reasons why 'official ignorance' occurs in the case of slums. First, if the state were to officially 'know' what happens in slums, for example regarding 'informal' water provision, then they would have to act upon it. By ignoring and occasionally denouncing it as 'illegal activities', the governing power can maintain the status quo. Invisibility (or 'absence') also has an effect of "othering" (Law, 2004; p83-85), which in turn can serve to reinforce dominant superiority systems (*cf.* Said, 1985). This can even be compared to Bauman's mechanisms of indifference described above. Furthermore, through official ignorance, the perennial condition of 'informality' or 'illegality' can also be maintained. This upholds private property as founding principle for a state, which comes in handy when a stretch of land spectacularly increases in value or there are other reasons for displacement; unfortunately, when living in a slum the threat of demolition is ever-present and can materialise very suddenly. Of course, this also works to keep the urban middle classes content; these are tightly linked to private property and more likely to cause problems for the governing elite if they protest.

5.5.Political society

Unlike what the sub-sections above may suggest, I do not wish to claim here that slum residents are idle bystanders in the process of segregation between the urban haves and have-nots. I mainly follow Partha Chatterjee's notion of 'political society' (Chatterjee, 2004) in arguing that the urban poor are able to organise around some form of collective identity (e.g. residents of area X; caste Y; etc.) and negotiate services from the state through "paralegal arrangements" (*ibid*; p.74). This form of 'political society', as opposed to 'civil society' is able to obtain services from the state not on the basis of citizenship, but on the fact that the group is a separate category; this allows the group to be targeted as such by government programs. The services obtained through 'political society' are therefore not obtained as materialised rights granted to all citizens, but on a discretionary basis. In fact, the group in question does not claim services directly from the state; it negotiates them through an alliance with a politician or political party.

The term 'paralegal arrangements' in these negotiations is elusive for its ways are rather murky, contingent and messy; they can range from an exchange of votes for services during election time, to outbursts of communal violence (Chatterjee, 2004, Hansen, 2001). A crucial factor is also that the services which are then provided as a result of these 'negotiations', are merely granted on the basis of *exception*, based on some form of 'moral solidarity' not a *right*. Community leaders play a central role in mediating between the group and various politicians (Koster, 2012); however if the community leader gains power through violence and fear, the term 'slumlord' may be more appropriate (*dadas* in Hansen, 2001), even the terms 'gatekeepers' or 'patrons' may be used. Political alliances are strategic and rarely based on ideology; shifts between parties are common (Koster and de Vries, 2012).

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[23] Value Added Tax

This system of political society has been effective in assuring some form of basic level service provision, and in some extent also protections from demolitions. In India, where the rich don't vote, but the poor do, this system has even resulted in improvement for the most marginalised castes (Chatterjee, 2004). It is worth mentioning here that Chatterjee does not aim to describe a 'better model'; rather he sets out to show that democracy today is very different than envisioned by intellectuals of the Enlightenment era. However, this does not withold some, like Bakker, from reading his book in a very utopian way: *"our analyses (and political struggles) are better directed toward the terrain of 'political society': the search for models that resolve, to the extent possible, the inevitable tensions between representation and participation, technocracy and democracy, centralised oversight and local preferences, and economic exigencies and environmental imperatives. The key actors in these conflicts will be the communities and the governments they attempt to hold to account."* (Bakker, 2010; p.227).

In my view there is no need to romanticise 'political society'. I acknowledge that it can lead to certain material benefits for those living in slums in a contingent manner. However, I believe that this system is also responsible for maintaining the status quo. In Chatterjee's view the urban poor do not point at the practices of the rich, who regularly bribe officials to obtain services, building permits and so on, as something immoral; they argue that if such exemptions are made for the rich, they should in all fairness also be made for the poor (Chatterjee, 2011; p.16)[24]. This system may work for the poor to some extent, but as soon as water pipes burst, or a communal toilet block goes up in flames (as happened in 'my' slum in Mumbai), a new set of 'negotiations' has to be opened. Of course, with municipal, state and national elections, slum residents in Mumbai can often exchange votes for services; but nevertheless, this system also allows for the perpetuation of a patron-client relationship. As services are never delivered on the basis that those that gain them have somehow a 'right' to these, the municipality can always take them away again when it pleases. It also results in trade-offs between services, as the need for one public service may be more pressing than others (e.g. a water connection over a toilet, over a school etc.).

In the internal dynamics of a slum community, the system of political society can be said to facilitate a traditional conservative order. As political society is heavily linked to violence (Hansen, 2001) it is generally considered to be a male dominated domain (Chatterjee, 2011). The needs of minorities within communities are not guaranteed in such a system, facilitating the formation of slums based on communal characteristics (e.g. religion, ethnicity). Furthermore, 'community leaders' may not necessarily operate in the general interest, if their personal interests are in conflict with this. For example, in 'my' Mumbai slum, an offer for rehabilitation (where all registered residents obtain a free flat) was turned down by the community; it was argued that this was influenced by the position of the two 'leaders' which owned and rented about ten houses each, but would only stand to gain one free flat in return (Galli, 2013).

It therefore seems that the very same systems that allow for slum dwellers to obtain services from the state (albeit in an informal, contingent, irregular manner) are somehow complicit in facilitating the urban segregation between 'formal' and the 'slum'. The system of political society is facilitated by

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[24] This notion of "if they steal, why shouldn't I?" is perhaps best epitomised by Silvio Berlusconi, who at the time that he was Italy's prime minister and the country's richest man, argued that: "if income tax is above 33% I feel the moral obligation to evade taxes".

a 'politics of looking away', corruption and even violence. To my understanding, such a system cannot be easily reconciled with Bakker's view of political society as a way of 'holding governments to their account'. Rather, the terrain of political society must be analysed for what it can and cannot achieve: the poor are able to obtain some form of service provision, but this is at the cost of bribes, an acknowledgment of the duality of formal and informal and possibly even at the expense of the minorities living within a slum community. This provides a much more solid basis for future projects, programmes and policies.

5.6. Conclusion

In this section I have described different factors which in my view are useful to understand how slums stay slums over the course of decades; aspects which are often not mentioned in mainstream discourses. First, I have scrutinised the term 'slum'; for this term has come to stand for a wide range of neighbourhoods and is used indiscriminately. The use of the term 'slum' also facilitates a development agenda based on demolition and reconstruction, rather than on self-improvement through community efforts. Second, I have also tried to unpack the condition of 'informality' and discussed some common responses to this, such as 'formalising the informal' and 'community-based enumerations'. Third, I have described how definitions of slums can also be understood in terms of failed service provision of municipality to poor areas. The vicious circle of denied basic services and protracted informality leads to the continued existence of slums. The bureaucracies and powerful politicians benefit from this informality as they can facilitate service provision behind the counter, thereby personally reaping the financial benefits. Fourth, I have elaborated on how municipalities can justify the denied provision of formal services, by relying on the fact that slums are not 'officially known' in the eyes of the state. This 'invisibility' is not only needed to uphold the status quo, but also acts as a useful tool of exerting state-power over slum areas. Finally, I have directed the attention to the role that slum dwellers themselves play in the 'persistence of slums'. To do so I have explained the system of 'political society' and how, despite some gains in terms of service provision to the urban poor, it also maintains the segregation between the 'formal' and the 'informal'.

6. Concluding remarks

In this document I have elaborated on my PhD-proposal and reflected on the process through which this came about. In this final section I will summarise the main lines of enquiry developed throughout this document and explain how I see these three relating together. Lastly, I will also briefly reflect on the process of writing an elaborated version of the PhD proposal.

6.1. Summarising

This document has described how my insights, developed in Mumbai during the research period for my major MSc thesis, have directed my attention towards those with decision-making authority in urban water management. My interest in carrying out a research within the circles of power, rather than 'poor villagers', was further informed by writings of authors close to the research group I study with (Molle *et al.*, 2009, Zwarteveen, 2011). In the following sections I've laid out three interrelated conceptual lines which are central to the PhD-proposal.

First, I have introduced the idea that water governance directed towards slums is largely based on aspects of institutionalised discrimination. I have done this by discussing how municipal water providers and centralised water networks have emerged in the late nineteenth century in European and North-American cities (Tarr, 1984); and how this model was only partly duplicated in colonial cities (Chaplin, 2011, Kooy and Bakker, 2008, Gandy, 2008, Castro, 2006, Swyngedouw, 2004). To a large extent the 'native' population of these colonial cities was not connected to this centralised system. I have discussed how this model of state-led centralised water and sanitation systems suffered from political interference, nepotism, corruption, lack of maintenance and is largely financed by debt (Swyngedouw, 2004). Furthermore, the practice of exclusion of the poor urban areas continued after colonial independence, as post-colonial elites managed to capture the services provided by the state (Chaplin, 2011, Kooy and Bakker, 2008, Gandy, 2008, Castro, 2006, Swyngedouw, 2004). Privatisation of urban water services has been the mantra from the 1980s onwards, this model was claimed to deliver higher investment and efficiencies, fewer leakages and lower costs. The 'private vs. public' debate which still rages on has diverted attention from the fact that both state and market have not seemed to be able to improve the situation concerning water delivery to slum areas (Bakker, 2010). I posit the notion that the deep-running urban segregation between the urban *haves* and *have-nots*, which is also reflected in the non-provision of public services to the latter, is fuelled by a form of institutionalised discrimination among those in power towards the urban poor.

Second, I have elaborated upon the object of my analysis: the municipal bureaucracy. Using Bauman's theory (Bauman, 1989), I have described how a collective of otherwise moral individuals is able to achieve highly immoral ends, if their efforts are orchestrated within a bureaucracy. The mechanisms of producing 'moral indifference' seem to be very important in this aspect, comparable to 'institutionalised discrimination' I referred to earlier. I then turn to describe how practices of individual employees are informed by experiences, and social and cultural dispositions (Bourdieu, 1977); how these may also be the result of a dominant cultural hegemony (Gramsci, 1995); and, particularly of interest to the topic of municipal water providers, are shaped through professional normalism and masculinities (Chambers, 1992, Zwarteveen, 2011). I have also discussed what my own points of view are regarding the study of slums and the bureaucracies that govern these. I end

the section by explaining some of my ideological presuppositions and describing how I plan to practice research.

Third, I return to discussing the need to study those in power as I describe how the existence and persistence of slums are related to the actions and negligence of and by municipal officials in close cooperation with political party cadres. This comes forth from the indiscriminate use of the term 'slum' and the (re)development implications it has; but also from the very definition of the term, which is intertwined with the (in)actions of urban authorities. I discuss how the use of a condition of 'invisibility' allows municipalities to govern slums by refuting any substantial change to these areas, thereby upholding the status quo until demolition of a slum becomes justified. However, I also describe how slum dwellers manage to access basic services through a system of 'political society'; this system, while granting access to those services which are formally denied to slums, is also responsible for maintaining the urban divide between the 'formal' and the 'informal'.

6.2. Interrelated lines of enquiry

The three lines of enquiry summarised above are probably each worthy of a separate (PhD) research. However, by themselves each of the topics may be void in some perspective. A research only based on institutional discrimination in urban water providers will lack analytical perspectives that explain the way these processes take place; a research only considering organisational practices within municipal water providers will not be able to take into account the larger societal processes at hand; and finally a study only based on 'slum persistence' will be too abstract to be related to practical implications. It is therefore that my proposed research will be placed at the intersection of these three topics, for I believe that it is here that a field can be found where academic curiosity can be combined with societal relevance. Although the way these three topics will interrelate will only fully crystallise during or after the research when writing the PhD thesis, I will describe how I envision the interaction between these at the moment.

My main criteria for developing a PhD proposal have been that it should be relevant to society, academically challenging and hopefully also lead to practical implications. The topic of exclusion of slums from centralised water networks is certainly relevant, for it influences the quality of life of those living there, as I have experienced first-hand. In my view this non-provision can only be understood when considering municipal water providers as organisations characterised by the vital services they deliver and as such influenced by very specific technical and societal constraints. The idea that urban segregation is at the root of this non-provision and that this segregation is fuelled by institutionalised discrimination towards the urban poor, can only become clear when analysing municipal water providers as bureaucratic organisations and focussing on how organisational practices are informed. The topic of 'slum persistence' is another way of analysing urban segregation, for it deals with the mechanisms that form the glass ceiling (or in some cases the electrified fence) which prevents those living in slums to access the benefits enjoyed by the middle classes.

These inter-related strands will hopefully allow me to transcend disciplinary boundaries during my research. It has become clear throughout this document that my research will require inputs from the field of water management, urban geography, organisational studies and post-colonial analyses; at the same time I will have to elaborate my basic theoretical understandings of philosophy of science, sociology, anthropology and political science. I realise that this is a tall order for a limited

research period and perhaps even in the remainder of my (professional) life I will not achieve this goal. Nevertheless, I believe that a good attempt in elaborating on these three lines of enquiry and grounding their inter-relatedness in some solid empirical work will result in serious advancement for the field of water management studies (from where I am most likely to conduct my PhD), while at the same time demonstrate the relevance of this field to other domains.

6.3. Reflections

At the moment of writing, it remains to be seen whether I will be accepted to the WASS PhD programme. Although in my mind the three conceptual lines that I have summarised above form a beautiful weave, it may well be that the ad-hoc assessment committee judges otherwise. One aspect I am quite sure about, is the fact that when executing the proposed research the weave will not always seem to be as flawless as I now envision. Nevertheless, writing a PhD-proposal and elaborating on it through this document has been a very positive learning experience.

Originally, upon delivering the PhD proposal this document is based on, I envisioned the overall objective of the research to be: t*o contribute to an understanding of the inter-relation between professional identities, bureaucratic cultures, urban governance, 'deliberate ignorance' and 'slum persistence' in the context of WATSAN-provision.*[25] Although some discrepancies can perhaps be found with what I have argued in this document, the overall structure of this objective still stands, and the attempt of explaining these three inter-related lines of enquiry has thus been a fruitful exercise. Over the course of writing and reviewing this document, I have even been able to change some of my insights somewhat by nuancing certain concepts while deepening others; this is arguably going to continue even beyond the moment that my PhD thesis will be printed.

I must acknowledge that writing this document was not one of my favourite tasks I have carried out during my Master's programme. The main reason for this is that initially I was not very challenged by it, as most of the interesting and exciting work was done already. Writing a PhD-proposal, working with deadlines and word limits while trying to fit in as much as possible, was quite a nerve-wrecking and exhilarating experience. To move from such a process to one where I am writing and reflecting elaborately about what I have already written, has proven to be difficult in terms of motivation. Repeatedly, I had wished to carry out an internship or a 'proper' minor research like my fellow students. However, it may also be that this effort has proved to be difficult for it was placed in the summer period at the end of a long academic year.

In hindsight, I admit that my original wish to create a course on socio-technical perspectives was rather naïve. After trying to write about what such an approach might entail, I realise that I am a long distance away from understanding many of the complexities which revolve around urban water management. I hope that I will eventually be able to develop such a course somewhere in the near future. This will allow me to discuss my ideas, as I advance my knowledge of these topics. However for the time being, switching my attention towards writing a PhD proposal has been a good choice. Writing this elaborated version of the proposal makes me feel more confident for a possible interview with the WASS ad-hoc assessment committee. The process of having to go over my PhD-proposal and reflect on the whole process has forced me to look again closely on what I've written

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[25] see Annex for the complete PhD proposal

and re-read the works I have based it on. The comments of my supervisors have stimulated to continue reading and helped me to critically reassess my thoughts. I am confident these efforts will prove to be fruitful during a PhD-trajectory.

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Annex: PhD proposal submitted to WASS

APPLICATION for a PhD SCHOLARSHIP with Wageningen SCHOOL of SOCIAL SCIENCES (WASS)

➢ At the end of this form you will find explanations / instructions per question. Please consult these before filling in the form.

➢ Incomplete applications, applications in a different format, or applications that do not meet the conditions as mentioned in this form or in the instructions, will not be taken into consideration by WASS.

➢ Make sure that all the required documents are attached.

➢ Applications should be submitted at the latest at **9.00 AM on July 1st, 2013 (Amsterdam time).** Send your **application plus annexes digitally** to wass@wur.nl.

➢ For the digital version of the required annexes: this means a scanned version (preferably converted to PDF). Please take notice of the size of each document!

2013/2014

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1. APPLICANT:

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HOME INSTITUTE

MSc student at Wageningen University

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2. PROJECT TITLE: (if relevant: incl. in the title the name(s) of the country(ies) where the research will be carried out):

Invisible cities don't get water: institutionalised discrimination, WATSAN provision and slum 'persistence' in Maputo, Mozambique.

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3. SUMMARY OF THE RESEARCH PROJECT (**max. 200 words, add word count**: 200)

Access to water and sanitation (WATSAN) is essential for a healthy, dignified life. However, for people living in slums, this access is very limited. Slums considered informal/illegal by the municipality, aren't linked to the public networks. A bureaucrat sees slums outside the window, but on municipal maps these are inexistent. This 'deliberate ignorance' sustains the formal/informal

divide, condemning residents to poor WATSAN-services. This reinforces class disparities and exploitative power-constellations, facilitating the 'persistence' of slums. Decision-making power in urban governance is vested in non-slum actors such as politicians and bureaucrats; discrimination towards slumdwellers is institutionalised in these organisations and their professional cultures.

This research uses WATSAN-provision as a lens to understand how institutionalised discrimination perpetuates the informality of slums, by considering practices within water-governance structures that determine which areas get water and which don't. The research objective is:

To contribute to an understanding of the inter-relation between professional identities, bureaucratic cultures, urban governance, 'deliberate ignorance' and 'slum persistence' in the context of WATSAN-provision.

Ethnographic research will take place in Maputo, Mozambique where WATSAN-infrastructure is under expansion. Data will be gathered through 'shadowing' employees of a WATSAN-provider, interviews, focus groups, archive research, observing interactions between slumdwellers and bureaucrats and engaging with slum-residents.

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4. DESCRIPTION OF THE PROJECT (**for question 4a-c, a max. of 1200 words is applicable, add word count**: 1199)

    a. Scientific significance

The inter-disciplinary research will combine two inter-related lines of enquiry: 1) the role that professional identities and cultural-political dimensions in urban water-governance play in WATSAN provision to slums; and 2) the 'persistence' of slums through decision-making processes related to WATSAN-provision.

First, the study will consider (non-)provision of WATSAN to slum areas. This research will contribute to the existing literature by analysing how professional identities, organisational cultures and dynamics of water governance influence the (non-)provision of WATSAN to slum areas. Governance is seen as a decision-making 'field' of organisations and institutions that shape, in this case, urban water-management. This research builds upon the insight that "normal professionalism and bureaucracy" of state agencies play a large role in shaping development projects and maintaining the status quo (Chambers, 1992). Decision-making powers in water governance are largely vested in educated men, of a higher social class and possibly even of a different religious and/or ethnic group than those living in slums; it is worth pursuing how these professional identities play a role in sustaining class divisions (*cf.* Zwarteveen, 2011; p.41). In the field of rural water-management pleas have been made to focus research on the centres of water expertise and power (Molle *et al.*, 2009); in the urban context, the focus of attention is shifting towards the mismatch between institutional dimensions of water-management and the needs of poor households (Bakker *et al.*, 2008). This research will respond to the former plea (although in an urban setting) and add political- cultural dimensions to the latter analysis.

Second, the research will describe how urban governance helps to shape and sustain the existence of the 'slum'. The extent of power of actors in urban (water-)governance (figure 1) varies between

countries; for example, in India the bureaucracy plays an important role and its (in-)actions are crucial in the persistence of slums (Nijman, 2009), while in Mozambique power is vested in the ruling political party (Ahlers *et al.*, 2012). What remains similar is that, while slums may be seen outside office windows, on municipal maps these areas are often inexistent. This dual reality is worth studying as it sustains class divisions and power structures. The 'deliberate ignorance' sketched above, or "*absence as Otherness*" (Law, 2004; p83-85), is in fact constistutive of state power (Mathews, 2005, Anand, 2011). The continued division between a 'formal' residential area and an 'informal' slum is then considered not as a given, but dependent on ordering achieved through material-semiotic networks (e.g. Law, 2009). Informal access to WATSAN in slums is mediated through networks of "para-legal arrangements" (Chatterjee, 2004), which shape power relations. This allows the use of WATSAN-provision as a lens to analyse the relationship between urban governance and slum 'persistence'. Inspired by Mol's hospital "praxiography" (Mol, 2002), this study will investigate the practices of water governance structures and their spatial-material outcomes.
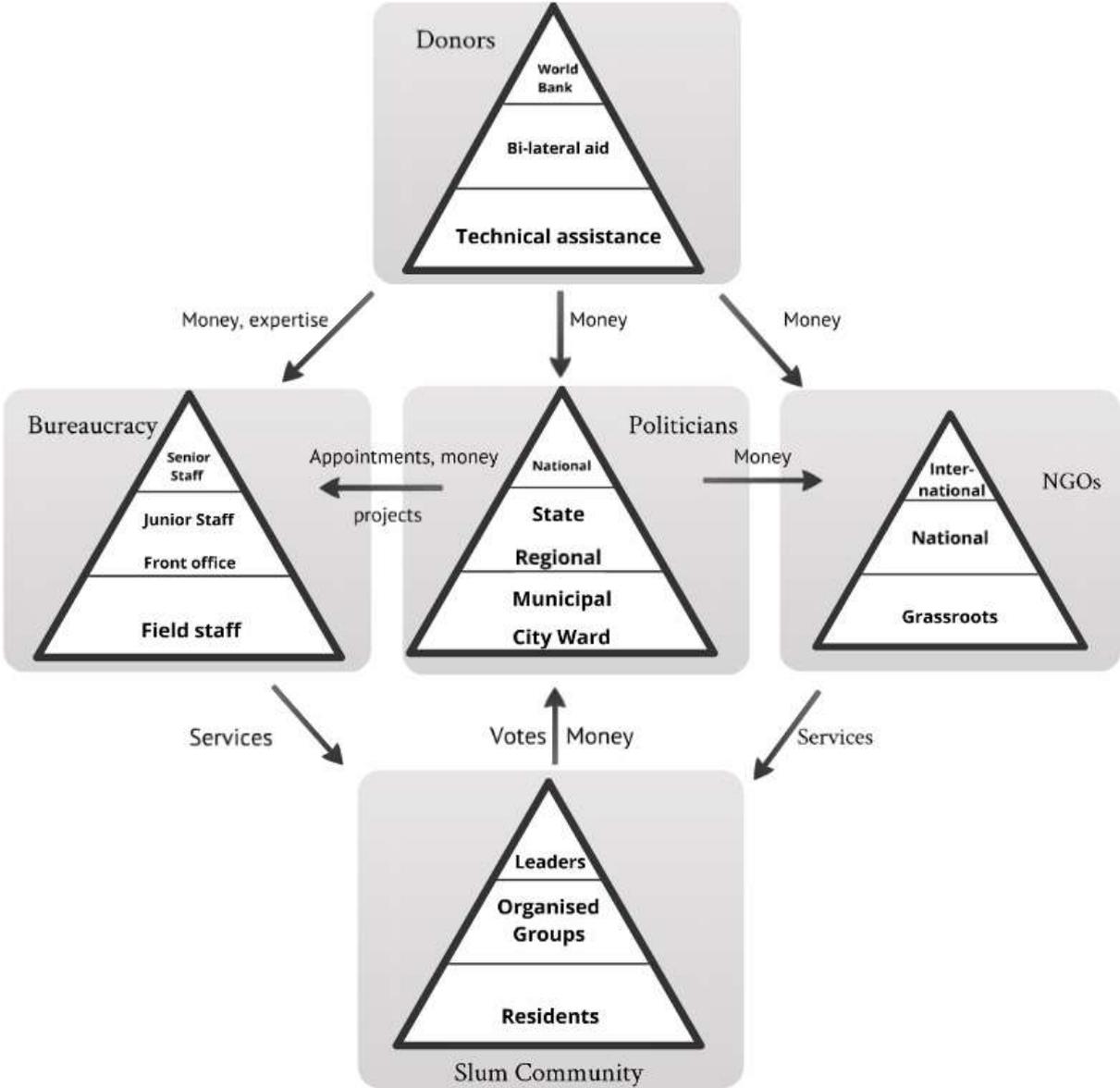

FIGURE 1: A POSSIBLE REPRESENTATION OF URBAN WATSAN GOVERNANCE: A FIELD OF INTERCONNECTED ACTORS AND LEVELS

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b. Detailed problem definition and research objectives

A third of the world's urban population, 830 million people, reside in slums (UN-HABITAT, 2010). Lack of access to WATSAN-services in slums severely influences the quality of life, as it leads to gastro-intestinal diseases, one of the global leading causes of child mortality. Sanitation services in slums are inadequate and shared between large numbers of households (JMP, 2012). Paradoxically, piped water in affluent areas is far cheaper and safer than the informal service provision on which the slums have to rely on (Swyngedouw, 2004). This differentiated provision of WATSAN in cities of the 'global South' can be traced back to spatial socio-economic segregation during colonial times (Gandy, 2008). The persistence of this two-tier system, has led some to question the ideal of a universal centralised-networked WATSAN-provision (Bakker *et al.*, 2008).

As slums come up in marginal areas outside what is planned, they are considered 'informal' and thus not eligible for formal public services. Residents of slums therefore negotiate for services through "political society" (Chatterjee, 2004); a system where slum communities organise to exchange votes and cash for (WATSAN-)services in an informal, unregistered and ephemeral manner. This happens through a network of politicians, community leaders, bureaucrats and plumbers (Bakker, 2010). In fact, WATSAN-services are not officially provided by municipalities to slums, as this would *de facto* lead to their recognition. The 'informality' of a slum is thus sustained over the course of time, leaving slumdwellers dependent on this differentiated system of service provision.

The formal/informal dichotomy in a city masks the interconnection of the two through economic relationships (Nijman, 2009). Nevertheless, slums are under the ever-present threat of demolitions, especially during 'beautifying' efforts. In fact, slumdwellers have to face a whole array of actors such as judges, property developers, politicians and municipal officers that oppose their presence. These demolitions are not merely based on 'informality', but also fuelled by the discrimination of these powerful actors based on notions of aesthetics, class, religion, ethnicity, political affiliation etc. (e.g. Baviskar, 2003).

There is thus a link between WATSAN-provision, (in)formality, institutionalised discrimination and the 'persistence' of a slum (Bjorkman, forthcoming). However, there is a lack of studies that explain how these links are sustained through (daily) practices. A case study shall be sited in Maputo, where Dutch companies are currently expanding WATSAN-infrastructure (AllAfrica.com, 2013). The study shall trace how formal/informal divisions are maintained through processes of institutional discrimination; scrutinise decision making processes that determine which areas are connected and which aren't; and juxtapose project plans and field observations to find discrepancies.

The research problem is therefore:

Little is known how cultural-political dimensions within water-governance organisations result in differentiated WATSAN-provision to slums and the persistence of a condition of 'informality'.

The overall objective of this research is:

To contribute to an understanding of the inter-relation between professional identities, bureaucratic cultures, urban governance, 'deliberate ignorance' and 'slum persistence' in the context of WATSAN-provision.

This leads to the following research questions:

How is WATSAN-provision to slum areas influenced by institutional discrimination within water-governance structures, and how do their practices reproduce the 'informal city'?

After previous research experience in Mumbai, this study will take place in Maputo, Mozambique as I can rapidly learn Portuguese. Access to the municipal water-utility will be sought through contacts within Vitens, a Dutch water-utility that has various projects in Maputo and through contacts at UNESCO-IHE also working there.

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c. Methodological design

The research relies on an 'organisational ethnography' (Ybema *et al*., 2009), using Luyendijk's 'Banking Blog' (Luyendijk, 2011) as an inspiration. By "going native in the City" Luyendijk is able to explain the distinctions, rationales and mechanisms that constitute the practices of those working in the London banking sector, resulting in valuable insights on the financial sector.

Data will be gathered through the following methods: 1) 'shadowing' and obtaining 'life histories' of 3-4 employees, of different ranks of the water-utility; 2) interviews and focus groups with various staff members; 3) 'hanging out' at sites of interaction between slumdwellers and bureaucrats (e.g. front-office, following plumbers); 4) engaging with residents of network expansion sites (i.e. slums) through NGOs, residents' associations etc.; 5) archival research on the evolution of the city, its WATSAN-network and the water-utility.

During the ethnographic research, special attention shall be given to different analytical lenses in studying organisations (Yanow, 1990) and different ways of knowing in organisations (Nicolini *et al*., 2003).

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d. References (bibliographic) (maximum 1 A4)

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5.   RELEVANCE AND IMPLEMENTATION (**max. 300 words, add word count**: 299)

There is a need to tackle the ever-increasing inequalities between the urban *haves* and *have-nots*. In the domain of urban WATSAN-provision these differences are excruciatingly stark. Past externally-led

efforts to bring about change in this domain have initially focused on technical assistance, this then shifted to a focus on ownership- and management-structures of WATSAN-providers. Institutional aspects have been gaining more attention lately. However, the political economy of WATSAN-provision is still left unmentioned and probably only discussed behind closed doors. My belief is that bringing cultural-political aspects into the limelight allows questioning 'natural' societal distinctions.

I'm convinced that discrimination faced by slumdwellers is closely linked to differentiated WATSAN-provision to these areas. Not only does this relate to issues of health and dignity, but informal WATSAN access also keeps exploitative power constellations in place. Poor WATSAN access also sustains discriminatory myths of 'slums as dirty places' and 'slumdwellers as dirty people'.

This research wishes to contribute to the democratisation of urban governance, by elucidating how societal-spatial segregation and WATSAN-provision are closely intertwined. As a male researcher, educated both in sociology and basic water-engineering, I would be able to gain inside access to organisations that slum dwellers only interact with when their water application is being refused. I also believe that understanding creates space for dialogue.

The findings from this research will be useful for those implementing externally-led reform processes (e.g. international donors, NGOs); for example, Dutch WATSAN-providers operating internationally (e.g. Vitens in Maputo). Local grassroots civil society which is struggling for a 'right to water and sanitation' could also benefit from my findings; I plan on continuing my cooperation with these organisations. Collaboration with existing WUR projects (RDS-group in Recife) and UNESCO-IHE (in Maputo) will be sought as well as contact with WUR PhD students using similar conceptual frameworks of 'ontological politics'.

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6.   WORKPLAN AND PUBLICATIONS

    a.   Detailed work plan for the first period (**max. 200 words, add word count**: 150)

Post-graduation/pre-Phd (Netherlands, 3 months; September 2013 – January 2014)

- Writing academic article on sanitation provision in a Mumbai slum (based on MSc thesis).
- Start language course.
- Establishing contacts with Dutch water supply utility.

Preparation Netherlands (6 months; January 2014 – July 2014)

- PhD courses:
    - On critical social theory; for example WASS-course "Critical perspectives on social theory".
    - On policy, implementation and reform; for example ISS-course "Public Sector Organizations, Management and Reforms" (ISS, The Hague)
    - On ethnographic fieldwork; for example WASS-course "Writing ethnographic and other qualitative-interpretive research" or "Doing Interpretative Analysis"
- Debate and improve PhD proposal (if necessary)
- Selection of research site and negotiating access to municipal WATSAN provider through Dutch water supply utility.
- Continued language course.

Preparation Mozambique (6 months; July 2014 – January 2015)

- Consolidating contacts with municipal WATSAN provider.
- Start archival research (note: possibly in colonial archives in Portugal).
- Selection of ranks and employees to 'shadow'.
- Local language course.

b. A rough work plan for the rest of the period (**max. 100 words, add word count**: 100)

Ethnographic Fieldwork (18 months; January 2015 – July 2016):

Sub-project A: Expansion of Maputo's WATSAN-network
- Cooperation with Vitens.

- Interviews and focus group with donors and staff of municipal water-utility

- Neighbourhood site-selection, establishing contacts

Sub-project B: neighbourhood analysis of WATSAN-network
- 'Shadowing' employees of municipal WATSAN-provider.

- 'Hanging out' at sites of slumdwellers-bureaucrat interaction.

- Engaging with slum residents.

- Writing two peer-reviewed articles.

Creating distance (3 months; July – September 2016):
- Re-crafting theoretical framework of PhD proposal.

- Writing methodology chapter.

Writing (12 months; September 2016 – September 2017):

- Two more peer-reviewed articles.

- Introduction and discussion/conclusion.

Post-submission (3 months; September – December 2017):

- Lay-out, printing and finalisation.
- Defence: January 2018.

   Type of publications to be expected (word count: 64)

Peer-reviewed articles:

"Historic review of Maputo's water provider and the water networks" (Journal: Water Alternatives)

"Inside the municipal WATSAN provider of Maputo" (Journal: Public Management Review)

"Expansion of Maputo's WATSAN-network and 'slum persistence'" (Journal: Environment and Urbanization)

"The Bureaucrats' Making of a Slum" (Journal: Urban Geography)

PhD thesis

Professional journal publication: for example, in Vitens customer magazine, or H2O; journal of Dutch water organisations.

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7. INTENDED STARTING DATE

    Starting date   : 1 **January 2014**

    Full-time (4 year) or 0.8 appointment (5 year) ? **Full time (4 years)**

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8. APPLICATION ELSEWHERE

    Have you sent/ will you send in this project for application of a scholarship elsewhere? **No**

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9. STRATEGIC CONTRIBUTION to Wageningen School of Social Sciences

        a. Strategic contribution to which WASS disciplinary field and/or domain of study?

The proposed research will contribute to two WASS research themes: "disparities" and "knowledge in society". The relation to the former is straightforward, as the study tackles the issue of unequal distribution of resources and services in the urban area. The link with the latter theme is established through developing an understanding on how urban divides are achieved and sustained through the shaping and fostering of material-semiotic realities.

        b. Preference for specific professor/chair group within WASS? (optional)

Water Resource Management (WRM) Group

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10. ORIGINAL IDEA AND DEVELOPMENT OF PROJECT

    Please, indicate whether the idea for, as well as the development of the project has been primarily your own:
    Yes

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11. BUDGET

    An indication of the costs for fieldwork, research, materials and travel

    Travel expenses (3 x return flights Amsterdam – Maputo)   € 3000
    Travel expenses supervisor (1x return flight Amsterdam – Maputo)   € 1000

Local travel expenses (€30 per month; 24 months)	€ 720
Research material (€50 per month; 48 months)	€ 2400
Total	€ 7120

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12. RECOMMENDATION AND REVIEWERS

a. Please, name three possible reviewers for your proposal (indicate name, function, affiliation and email address)

Prof. dr. Dvora Yanow (expertise: organisational ethnography)
Visiting professor
Strategic Communication Group
WUR
dvora.yanow@wur.nl

dr. Klaas Schwarz (expertise: reform of urban WATSAN providers; Maputo)
Senior Lecturer in Water Services Management
Water Governance Group
UNESCO-IHE
k.schwartz@unesco-ihe.org

dr. ir. Pieter de Vries (expertise: slums; Recife)
Assistant Professor
Rural Development Sociology Group
WUR
pieter.devries@wur.nl

b. Who will write a letter of recommendation? (see format below)

dr.ir. Alex Bolding
Assistant Professor
Water Resource Management group
WUR
alex.bolding@wur.nl

Seema Kulkarni (M.A)
Senior Fellow
Society for Promoting Participative Ecosystem Management (SOPPECOM)
Pune, India
seemakulkarni2@gmail.com