

**INSTITUTIONAL PATHOLOGIES AND URBAN WATER ACCESS:
A CASE STUDY OF JAKARTA, INDONESIA**

by

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ABSTRACT

In this dissertation, I offer institutional pathologies as a conceptual framework to analyse the seemingly intractable problems in water governance, and relate it to urban water access, using the case study of Jakarta. In this context, access to water refers to ease of accessibility to water sources in terms of quantity, quality, continuity and affordability. Institutional pathologies imply persistent institutional deviants and dysfunctional behaviours in water governance as shared by multiple actors. Specifically I develop three concepts of institutional pathologies: patrimonialism, confidentiality and informality. Patrimonialism refers to the pattern of bureaucracy that is heavily centred on central government and a central figure(s). Confidentiality denotes the style of bureaucracy that tends to maintain secrecy of public information in the name of national stability and security. Informality, refers to meta-rules that shape the habits of actors. To study the relationship between institutional pathologies and urban water access, I trace the development of Jakarta water governance from the public era of 1977-1997 to the private era of 1998-2014. Using qualitative methodology and under the influence of institutional ethnography as the fieldwork research paradigm, the fieldwork chiefly employs documentary analysis as the data collection methods to investigate the ruling relations. The documentary analysis opens a vista to multiple accounts to illustrate examples of institutional pathologies. It is suggested that rather than merely being sourced from internal bureaucratic culture of specific organisations, that is public or private, institutional pathologies are produced by the ruling relations between multiple actors. Therefore institutional pathologies can be useful as a conceptual framework that allows for an advanced and pragmatic analysis, beyond the narrow debate of privatisation. It is suggested as well that institutional pathologies can be used to analyse other southern cities, which may experience similar problems with Jakarta.

Keywords: institutional pathologies, urban water access, Jakarta

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LIST OF ACRONYMS

AMPL	Air Minum & Penyehatan Lingkungan (Drinking Water and Environmental Health)
APDAMINDO	Association of Indonesia Refill Water Vendors
ASPADIN	Association of Indonesian Bottled Water Producers
BAPPENAS	Badan Perencanaan Pembangunan Nasional (National Development Planning Agency)
CA	Cooperation Agreement
FGD	Focus group discussion
FOI	Freedom of Information
GBHN	Garis-garis Besar Haluan Negara (General Outline of State Policy)
IAD	Institutional Analysis and Development
ICW	Indonesian Corruption Watch
IDR	Indonesian Rupiah
IR	International relations
JAKPRO	Jakarta Propertindo
JWSRB	Jakarta Water Supply Regulatory Board
LDE	Lyonnaise Des Eaux
MDG	Millennium Development Goals
NGO	Non-governmental organisation
NIE	New institutional economics
NRM	Natural Resources Management
PALYJA	Pam Lyonnaise Jaya
PAM JAYA	Perusahaan Air Minum Jakarta Raya (Jakarta Drinking Water Company)
PELITA	Pembangunan Lima tahun (5-years development)
POKJA	Kelompok Kerja (Working Group)
PROPEDA	Program Pembangunan Daerah (Regional Development Plan)

PROPENAS	Program Pembangunan Nasional (National Development Plan)
PJSIP	PAM Jaya System Improvement Program
RCA	Restated Cooperation Agreement
RENSTRA	Rencana Strategis (Strategic Plan)
REPELITA	Rencana pembangunan lima tahun (5-year development plan)
RPJMN	Rencana pembangunan jangka-menengah nasional
RPJPN	Rencana pembangunan jangka-panjang nasional
TWI	Thames Water International
UFW	Unaccounted for water
UN	United Nations
UNICEF	United Nations Children’s Fund
WHO	World Health Organisation
WTP	Water Treatment Plant

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CHAPTER ONE - INTRODUCTION

1.1 INTRODUCTION

The main theme of this dissertation concerns institutional pathologies in the context of urban water access. The motivation of the study is to respond to the seemingly persistent urban water governance issues. Moreover, it seeks to build the knowledge to address such issues going beyond the narrow and futile debate on privatisation. To introduce the case study of Jakarta and its dynamics, attention is drawn to several major events that were taking place while this dissertation was being carried out. Since they are related to institutional pathologies they serve as an appropriate backdrop to this study. Aetra (one of the private water operators) successfully renegotiated and signed a new contract with PAM Jaya (the Jakarta public water company). A fierce provincial election took place resulting in a newly elected government in Jakarta. There was a citizen lawsuit organised by the Coalition of Jakarta Residents Opposing Water Privatisation (KMMSAJ). A declaration issued by the Jakarta Water Forum (FAJ) announced its intent to facilitate cooperation between different actors in the management of Jakarta's piped water. Palyja's plan (the other private operator) to sell its 51 per cent stake to Manila Water was cancelled. The newly elected government voiced its intention to remunicipalise Palyja.

These major events stem from the debate on privatisation and continue to garner attention. However, there are smaller multiple events that are equally important and signify the everyday malady. These are: the arbitrary and recurrent water shortages and infrastructural failures; the protest of hydrant owners against the plan of water companies to reclassify the tariff and gradually close down their businesses; the mundanely continuous extraction of groundwater by excessive pumping; illegal connections; informal negotiation; and the increasing consumption of bottled water and refill water. It is hoped that this dissertation will contribute to the body of knowledge on urban water governance and to ongoing discussion at global and local level. To this end, the chapter begins by canvassing global conditions of urban water access. After that it provides the research gap that will relate to the research objective. Finally, at the end of this chapter I will specify the research limitations and provide an outline of this dissertation.

1.2 GLOBAL CONDITIONS OF URBAN WATER ACCESS

With more than half of the global population living in cities since 2008 most urban growth has been happening in cities (UNFPA, 2007). This planet is urbanising at a faster rate than was previously anticipated and the demand for water is increasing concurrently, while efforts to improve urban water access have been limited. Urban population increased from 2.2 billion in 1990 to 3.4 billion in 2010 while the demand of clean water is expected to increase by nearly 80 billion cubic meters by 2025. In most southern hemisphere cities, the formal utilities merely serve between 40-70% of the urban population (Dobbs et al., 2012; WHO/UNICEF, 2012b; Ahlers, Cleaver, Rusca, & Schwartz, 2014). Urbanisation and water management are more problematic for southern cities that have only been experiencing explosive growth since 1960, and thus have had difficulties in improving water infrastructures for a relatively shorter period, than for northern cities such as London and New York that have been urbanising incrementally since the 19th century so water infrastructures could accordingly have been built gradually (Biswas, 2010).

Global efforts to improve urban water access, particularly for domestic consumption, began in the UN Water Conference 1977. The goal during the Water Supply and Sanitation Decade of the 1980s was to provide (universal) access to clean water and adequate sanitation by the end of that decade (Biswas, 2010). This ambitious goal was not achieved and, a decade later, United Nations reformulated the goal to achieve universal water access through the Millennium Development Goals (MDG) in which ‘improved sources’ would be used as the proxy to calculate the progress and quantify the success rate. Finally, on 6 March 2012, WHO and UNICEF released a joint news report stating that “The world has met the Millennium Development Goal target of halving the proportion of people without sustainable access to safe drinking water, well in advance of the MDG 2015 deadline” (WHO/UNICEF, 2012a). After announcing the achievement, in the Foreword section of the report, UN Secretary-General Ban Ki-moon recommended the next step: “working towards *universal access*¹ to safe water and sanitation” (emphasis added, *ibid*).

Nevertheless achieving universal access is a challenge for cities in developing countries that have seen stagnant growth of piped water networks for the last two decades—approximately one out of four global urban dwellers in the developing world do not have

¹ According to MDG, universal access encompasses full coverage of water supply from improved water sources, which include piped on premises, public taps, boreholes, rainwater collection, bottled water and other sources protected from contamination.

access to piped water on their premises—and the number of city residents using unimproved water sources increased from 109 million in 1990 to 130 million in 2010 (Dobbs et al., 2012; WHO/UNICEF, 2012b). Moreover, ‘improved sources’ is a flexible category widely used in aggregative context by international organisations. These could produce misleading statistics thus it is suspected that the number of urban dwellers who do not have access to clean drinking water is closer to 2 to 2.5 times greater than the official figure provided by UN (Biswas, 2010).

In the absence of an adequate piped water system, urban dwellers in developing countries rely on multiple sources of water. There are three important emerging trends in domestic water consumption. First, there is significant growth of bottled water as main source of drinking water from 1% in 1990 to 6% in 2010 in urban areas, within a segment of population that mostly also has a piped water connection as a secondary source (WHO/UNICEF, 2012b). This trend occurred both in northern and southern cities. There is a possibility of bottled water eclipsing piped water for drinking purposes—although it comes with increased energy demand to produce plastic packaging and additional cost to manage the generated solid waste (Rygaard, Binning, & Albrechtsen, 2011).

Second, the number of urban residents who rely on private vendors, such as tanker trucks and a small cart with a drum, increased from 24 million to 42 million in the same period (WHO/UNICEF, 2012b). This figure may be underestimated since providers in some African, Asian and Latin American cities may serve up to three-quarters of the total urban population as well as penetrating low income households (Collignon & Vézina, 2000; Kariuki & Schwartz, 2005; Porter & Singh, 1995; Sima & Elimelech, 2011; Solo, 1999). They are then identified in different literature as “independent providers” (Collignon & Vézina, 2000), “non-state providers” (Batley & McLoughlin, 2010; Sansom, 2006), “alternative providers” (Gerlach & Franceys, 2010), or “small-scale private providers” (Kariuki & Schwartz, 2005; Sima & Elimelech, 2011). These literature sources concur with the growing interest from multilateral aid organisations, such as World Bank, UN-HABITAT and the European Union in their role as actors in urban water management (Moretto, 2007).

Third, the use of boreholes and springs by the urban population doubled in this period (WHO/UNICEF, 2012) signifying continuous abstraction of groundwater. In summary, the piped water supply system has traditionally been managed by the public sector, and still largely is, yet has not been able to provide universal access to safe water. Thus urban dwellers have to rely on alternative sources, such as bottled water and private vendors, or methods to extract groundwater whenever available and feasible.

Concurrent with these emerging trends, is the still ongoing dogmatic debate over public or private control over urban water services, a period Biswas (2013) calls the “20 Years of Dogma”. In this debate, neither proponents nor opponents of privatisation engage in real dialogue and certainly show no sign of foreseeable consensus. The former associates the mismanagement of urban water supply to market failure while the latter attributes it to state failure (Bakker, Kooy, Shofiani, & Martijn, 2008). As a result of this monolithic view of the state versus the market, each party then offered privatisation and (re)municipalisation respectively as a panacea to remedy the seemingly chronic condition of unsatisfactory urban water supply. It became an end in itself although the underlying objective was to devise a feasible strategy for the ownership and management of water utilities that would improve access to safe water.

In the case of this study, the capital city Jakarta has more complex stories besides that of privatisation. The history of Jakarta’s piped water supply stretches back to the Dutch colonial era when the first reticulation network was constructed to supply the mainly European population in the 1870s (Kooy, 2008). After the political independence of Indonesia in 1945, the status of Jakarta was only a second tier government level and the management of piped water infrastructures was transferred to the Drinking Water Agency (*Dinas Saluran Air Minum*) under the Public Works Department. The national territorial hierarchy was restructured four times and the ‘New Order’ government established a hierarchy that lasted from 1974 to 1999. Then the public water company (PAM Jaya) was formally created as a state-owned water company by Regional Regulation² stipulated by the provincial government of Jakarta and a decree³ issued by Ministry of Internal Affairs in 1977. Since the early 1990s, the authoritarian ‘New Order’ government and its president’s family and cronies have been interacting with international actors for the privatisation of Jakarta’s piped water. As a result, in 1997, two 25-year concessions were awarded to subsidiaries of two global water giants, Lyonnaise des Eaux and Thames Water International (ICW, 2000; Harsono, 2003, 2004; Lanti, 2006; Lanti, Nugroho, Ali, Kretarto, & Zulfikar, 2008). Only one year after this, alongside the exacerbating financial situation due to the Asian economic crisis in 1998, the city and the country had to face the turmoil of reformation. The ‘New Order’ government ended after Suharto, the second president of Indonesia and the mastermind of the ‘New Order’, stepped down.

Taking the ongoing planetary urbanisation that is taking place into account, according to Biswas (2010. p. 150), the emerging trends of urban water management “will change very

² Peraturan Daerah DKI Jakarta No. 3 Year 1977

³ Surat Keputusan Mendagri No. PEM/10/53/13350 –DKI Jakarta Gazette No. 74 Year 1977

significantly within a decade, and even more so thereafter". It is the interests of the wider field of water resource management that this dissertation documents the complexity of urban water access, and identifies institutional factors within the rubric of institutional pathologies and their influence, using the case of Jakarta.

1.3 RESEARCH GAPS

It is acknowledged that, although each country has its own specific water problems, continued "poor management practices of the past and the present" is a problem faced by nearly all countries (Biswas, 2010. p. 147). These signify chronic institutional pathologies. However, institutional pathology is an under-theorised subject in the social sciences. Considering the word's metaphoric and analogical nuance the operationalisation of the concept 'pathology', which is closely associated with medical science, could be prone to being seen as out of focus for the theme of this study.

One of the earliest texts that thoroughly discussed pathologies is a book titled 'The Pathology of Public Policy' by Hogwood and Peters (1985). In it these scholars apply and extend the medical concept of pathologies and defines them as 'the disorders which governments encounter in making and implementing public policy'. This book, however, receives critique for the use of excessive, but unstructured, medical metaphors and analogies to explain taxonomy, diagnosis and treatment of the pathologies (Harrison, 1986; Hood, 1986). Although these two scholars are successful in raising the idea of pathologies of public policy, they are not successful in the construction of their conceptual framework and the operationalisation of their metaphoric and analogical concepts.

Therefore, taking into account the lack of studies on institutional pathologies, this dissertation can be regarded as an experimental study in that it attempts to identify institutional pathologies in urban water governance using water access. This is noteworthy since water access is one of the most prevalent global water issues. In order to develop a conceptual framework for institutional pathologies as applicable to urban water governance, I distil the knowledge from two streams of literature: namely, Natural Resource Management (NRM) and International Relations (IR). These will be discussed further in the next chapter.

Nevertheless, other than lack of literature, there is another issue—an absence of convergence on the conceptualisation of institutional pathologies. For example, from the field of NRM, Briggs (2003) offers six symptoms of institutional pathologies. Three of them are: incompatible plans and planning processes; a closed culture that suppresses ideas; and

failure to develop incentive schemes. Another example, from the stream of IR: Bütke (2013, p. 11) offers two forms of institutional pathologies since in NGOs: “a strong organisational bias to grow a firm beyond the optimal size” and the tendency to “put self-perpetuation ahead of all else”. In this dissertation I thus offer a preliminary conceptual framework that can reflect institutional pathologies in urban water governance in three forms: patrimonialism; confidentiality; and informality. These three pathologies were developed from the analysis of empirical data gathered from the field and will be discussed further in **Chapter 3**.

Studying the case of Jakarta, one of the largest southern cities, I also attempt to rebalance northern urban theory by developing a southern urban theory based on the daily experience of local traditional settings (Parnell & Robinson, 2012; Pieterse, 2012; Robinson, 2002, 2006). From the field of Sociology of Globalisation, Connell (2007) remarks on the tendency to treat cities in the Global South as a data mine or an object, rather than a subject and the producers of the theory itself. Moreover, in the context of the cities in the Global South, there is a mismatch between contemporary urban theory and urban realities since the drivers of change identified by local scholars do not always correspond with northern-oriented urban theory, for instance, in the case of neoliberalism and privatisation (Parnell & Robinson, 2012).

In the case of Indonesian cities, and in light of contemporary post-authoritarian reforms, the impact of such reforms, namely decentralisation and devolution, on urban water access and institutional pathologies should be examined. When compared with other southern cities in Asia, including the cities of India and Bangladesh, Jakarta and major Indonesian cities have the worst access (Vltchek, 2014). Moreover, it is suggested that decentralisation and accountability reduce the quality of piped water provision (Rodriguez & Meirelles, 2010). Therefore, it is hoped that this research will throw some light on the relationship between institutional pathologies and urban water access. It also seeks to incorporate contemporary political economy reforms at the national level without excluding enduring traditional values as forces that influence water governance in Jakarta. The concept of patrimonialism, for example, is one of the institutional pathologies that can be traced to the pre-colonial Javanese empire up to the public authoritarian era and the contemporary private post-authoritarian era (see **Chapters 2 and 4**).

1.4 RESEARCH OBJECTIVE

The main objective of this dissertation is to study the relationship between institutional pathologies and urban water access. Accordingly, the sub-objectives are:

- to study urban water access

- to identify institutional pathologies

and, using the case study of Jakarta

- to assess the impacts of institutional pathologies on urban water access

- to provide policy and research recommendations regarding the relationship between institutional pathologies and urban water access

1.5 LIMITATIONS

There are two methodological limitations in this dissertation. First, there was a limitation regarding gender sensitivity. Although the gender proportion of research participants is more or less balanced, the methodology was not gender-sensitive. For instance, the methodology did not take the internal structure of the household economy into account. Therefore the influence of gender relations in decision making in formulating strategy to acquire urban water access could not be considered. Another major factor constituting institutional pathologies that was overlooked was the higher participation of women involved in the business management of alternative water sources such as hydrant and refill water kiosks.

Second, there was less discussion on groundwater, although it is acknowledged that groundwater is still the main alternative for piped water and constitutes the largest supply for domestic consumption. It was estimated that 64.34% of Jakarta water demand was supplied by groundwater (TIFA Foundation & Amrta Institute, 2013). Whereas the domestic sector consumed more than four times the water used for by the commercial sector it should be noted that groundwater is practically unlimited for domestic consumption. The 'excessive pumping' has come to the point where a household may have more than one electric pump for groundwater simply because the pump gets overheated and has to be replaced by other pump. It is acknowledged too that some business owners did not report on their illegal deep wells to avoid taxation, another sign of institutional pathologies. Nevertheless, considering the limited time allocated to conducting the fieldwork, the collected data is too inadequate for finding a strong correlation between institutional pathologies and urban water access in the context of groundwater abstraction.

In addition, there were operational limitations during the fieldwork. The fieldwork was conducted from December 2013 to March 2014 and there was a massive flooding in Jakarta in January 2014. Apart from this difficulty, I also had a problem obtaining data from public organisations that were reluctant to disclose public information, a phenomenon associated with respecting confidentiality.

1.6 OUTLINE OF DISSERTATION

The remainder of the dissertation is structured in the following manner.

I begin in **Chapter 2** by offering the theoretical background and research methodology of the dissertation. Firstly, I provide the definition of institutions based on a brief critique of theoretical continuity of old and new institutionalism. The perspectives of *institutions-as-rules* and *institutions-as-equilibrium* also apply. After that, I describe the method of institutional analysis based on an institutional analysis and development (IAD) framework. I then continue by canvassing the conceptual framework of institutional pathologies and identify three pathologies: patrimonialism, confidentiality and informality. Considering the limited literature on institutional pathologies in the field of urban water governance, I review literature from the fields of NRM and IR that have been theoretically more advanced in this area. To respond to the research gap, I make use of literature that refers to patrimonialism, confidentiality and informality specifically as applicable to the Indonesian setting.

In **Chapter 3** I elaborate on the research methodology and describe the study area. In the methodology sections, I provide the research methodology and summarise how I conducted the fieldwork. In the study area sections, I describe the geography, demography and linguistic characteristics of Indonesia and after that continue to zoom into Jakarta.

Chapter 4 describes the chronology of Jakarta water governance from the public era to the contemporary 'Private Era'. As for the 'Public Era', I follow the logic of the authoritarian regime to divide the era into 5-year periods that reflect the sophistication of urban water governance at that time. As for the 'Private Era', I neatly divide it into two periods: the early transitional period and the contemporary period.

Chapter 5 is the heart of this dissertation. In the chapter I examine the development of each institutional pathology from the 'Public Era' to the private era relating them to urban water access.

In **Chapter 6** I discuss the ruling relations that sustain institutional pathologies and develop further discussion on the propositions that I offer. Attention then focuses on the contribution this dissertation makes to institutional theories. I contribute to the ongoing debate on privatisation and the influence of global water politic on local water governance. Finally, a brief conclusion is based on the research objectives and recommendations for policy-making processes and future research are offered.

CHAPTER TWO – THEORETICAL AND CONCEPTUAL FRAMEWORK-

2.1 INTRODUCTION

Institutions, as a theme, conveys a very broad connotation and stretches widely across a range of different branches of science such as Sociology⁴, Economics and Ecology, hence providing a coherent and universal definition is challenging. For instance, Davies and Trounstone (2012) argue that institutions are central to different branches of science, yet the idea of a unified institutional theory is highly unlikely. Therefore to gain better appreciation of institutions and a robust theoretical footing, I follow the development of 'old' and 'new' institutionalism and provide a brief critique of them. After that, I continue by zooming in on the inherent antinomy within new institutionalism regarding *institutions-as-rules* and *institutions-as-equilibrium*. Against this background I offer support for this description of an institution, namely, a "recursively reproduced sets of rules and resources that constrain and enable social action" (Jessop, 2004. p. 3), as the working definition of institutions for this dissertation. Having been informed by previous theoretical discussions, I then discuss institutional analysis and the IAD framework as the basis for the selected research methodology used in this study.

To develop a conceptual framework for this dissertation, I then explore institutional pathologies and discuss three pathologies: patrimonialism, confidentiality, and informality. Patrimonialism refers to the residual form of pre-modern societal arrangement that was based on personal rulership. Confidentiality is an elementary feature of bureaucracies: obsession in maintaining administrative secrecy. Informality refers to meta-rules in that they shape the habit of actors in Jakarta water governance. To rebalance theories from the North and the South (see **Chapter 1**), I use the literature based on southern countries' experiences (e.g. Indonesia) and thus provide better appreciation of local, traditional and informal aspects that ground this dissertation.

2.1.1 Institutional Theories: Old and New

In this section, I discuss the development of institutional theories that will entail categorising scholars as old or new institutionalists. Although contemporary institutional

⁴ According to Durkheim (1982, the rules of sociological method), Sociology is about the "science of institutions, their genesis and their functioning" and they are part of 'social fact that give empirical value to the field of Social Sciences.

theories are dominated by new institutionalism, I wish to scrutinise the theoretical development, find out about the relative merit of the old and the new and distil the knowledge from the inter-textual richness found in both paradigms.

Traditionally, as in the political sciences, institutions were strongly associated with formal organisational bodies of government and the state. Those who view institutions in this way are termed old institutionalists (Selznick, 1949, 1984). The focal point of old institutionalists is the institutionalization of organisations; the character formation process that occurs on the organisational level, and the fact that the process was guided by salient cognitive forms such as values, norms and attitudes. For instance, Selznick (1948. p. 25) defines formal organisations as “the structural expression of rational action” that “never succeed in conquering the non-rational dimensions of organisational behaviour”.

Meyer and Rowan (1977) expand that notion and nurture the embryo of new institutionalism by arguing that the survival of formal organisational structure depends on the prevailing rationalised myths and rituals as a display of legitimacy in modern society that is highly institutionalised. Rather than focusing on organisations as the focal point of institutional analysis, they argue that ‘rationalized institutional rules’ are the building blocks of formal organisational structure, and those rules function as myths and rituals that influence the survival of the organisation itself (Meyer & Rowan, 1977). Subsequently new institutionalists follow a similar line of thought; for example, North (1991) considers institutions-as-rules consisting of both informal constraints (sanctions, taboos, customs, traditions and codes of conduct), and formal rules (constitutions, laws, property rights).

The transition from old to new institutionalism occurred in the 1990s when there was intense theoretical discussion between the ‘old’ and ‘new’ institutionalists largely due to some new institutionalists (DiMaggio & Powell, 1991) attempting to draw a clear boundary between the old and the new (Abbott, 1992). In that period, there were multiple fronts of discussion, for example: survey on the theoretical territory of the old and the new (Hodgson, 1993); the limitation of drawing a sharp line between the old and the new (Selznick, 1996); or even reconciliation and integration of the old and the new (Hirsch & Lounsbury, 1997; Rutherford, 1995). After that, the discussion faded away and new institutionalism gained traction as the locus for contemporary institutional analysis. This was especially noticeable after four new institutionalists—Ronald Coase, Douglass North, Oliver Williamson and Elinor Ostrom—were awarded with Nobel Prize in Economic Science. They are popularly associated with the umbrella of New Institutional Economics (NIE). The development gave rise to the International Society of New Institutional Economics, an organisation that sought to promote

NIE as an interdisciplinary locus with the aim to “explain what institutions are, how they arise, what purposes they serve, how they change and how—if at all—they should be reformed.” (ISNIE, 2013)⁵.

Accordingly the branding of NIE has been successful in improving the profile and increasing the influence of new institutionalism. It is considered influential in the theorisation of urban politics⁶. For example, urban regime theory and network governance theory are considered as derivatives of new institutionalism (Davies & Trounstone, 2012). Nevertheless, on closer inspection, the old and the new bear cross-cutting elements which show the continuity, and sometimes overlapping, between the old and the new. For instance, although DiMaggio & Powell (1991, p. 12) were trying to draw a sharp line between the old and the new, they also admitted fundamental similarities between the old and the new:

“Both the old and the new approaches share scepticism toward rational-actor models of organisation, and each view institutionalisation as a state dependent process that makes organisation less instrumentally rational by limiting options they can pursue. Both emphasize the relationship between organisations and their environments, and both promise to reveal aspects of reality that are inconsistent with organisations’ formal accounts. Each approach stresses the role of culture in shaping organisational reality.”

Selznick (1996, p. 275), one of the proponents of old institutionalism that has been criticised at length by DiMaggio & Powell, questions the merit of creating a sharp contrast between the old and new because “[it] is a failure to integrate the old and the new by taking full account of theoretical and empirical continuities”. Selznick then offers a more holistic approach by encompassing both organisations and rules as the subjects of institutional theories. At the same time he appreciates the contribution of new institutionalists (e.g. DiMaggio and Powell) to the bigger body of knowledge.

Therefore, rather than being swept by narrow categorisation of ‘old’ and ‘new’ institutionalism that delimits the knowledge exploration, in this dissertation, I prefer to embrace the inter-textual richness of the old and the new. Although the methodology of this research (to be described in this chapter as well) is derived from the IAD framework, which was developed by Ostrom, later on in the discussion chapter (see **Chapter 6**) we can see that

⁵ Interestingly, we can see that the awarded Nobel prizes serve as legitimacy for ISNEI and, accordingly, new institutionalism, which mirrors the idea of ‘rationalized institutional rules’ (Meyer & Rowan, 1977).

⁶ Obviously it is not surprising that one of the most researched subjects is degree of privatisation in service delivery (Davies & Trounstone, 2012).

insights from old institutionalism are still useful and relevant to interpret the results of the fieldwork done in this study (see **Chapter 5**). This is particularly evident in terms of appreciating specific local, traditional and informal forms of institutions (see **Chapter 4**). At this point, the working definition of institutions in this dissertation, obviously, has been influenced by the transition from old to new institutionalism, where more attention is given to institutional rules rather than to *specific organisations*. Furthermore, there is a separation between rules or institutions and organisations or individuals as actors that is akin to the difference between rules and players in a game. However, before I offer a working definition of institutions and continue to discuss institutional analysis, I investigate the inherent antinomy of institutional theories that persists in new institutionalism between *institutions-as-rules* and *institutions-as-equilibrium* reflecting the tension between structural determination and social agency (Jessop, 2004; Meyer, 2010).

2.1.2 Institutions: Rules or Equilibrium?

Antinomy refers to a form of Kantian scepticism when the reasoning for two equally rational propositions “gets entangled” and “necessarily arrives at two contradictory conclusions” (Slavoj Žižek, 1993). It implies the internal presence within of contradictions and opposing notions. Therefore, in this section, I use the opportunity to investigate the malleable meaning of institutions that ontologically has an inherent antinomy and epistemologically reflects the duality of structure (Giddens, 1984). The subject of the investigation is a comparison between two perspectives from new institutionalism regarding the definition of institutions.

The first perspective, *institutions-as-rules*, defines institutions as an enduring regularity of human action, which constructs constraints or opportunities, structured by rules, norms or shared strategies and the realities of the physical and biological world (North, 1991; Crawford & Ostrom, 1995; Imperial, 1999; McGinnis, 2011). This perspective separates rules and institutions from organisations or individuals as actors in situations. This is akin to the difference between rules and players in a game. In addition, institutions are expressed in the form of three main institutional statements (rules, norms and strategies), according to the variation of its syntax components (Crawford & Ostrom, 1995). In this perspective, the *passé-partout* of institutional change is changing exogenous rules. As a result, those institutional statements that are exogenous to the actors, and which lead to endogenous behaviour and accordingly to institutional change, are considered.

The second perspective, *institutions-as-equilibrium*, endogenises institutions by focusing on internal motivation of actors in self-enforcing exogenous rules (Aoki, 2007; Greif & Kingston, 2011). One of the definitions of institutions in this perspective is “as a system of ‘institutional elements,’ particularly beliefs, norms, and expectations that generate a regularity of behaviour in a social situation” (Greif & Kingston, 2011. p. 26). In this perspective, changing actors’ motivations and patterns of behaviour in a self-enforcing way is the key to institutional change.

Unlike the development of old and new institutionalism that can be traced as a continuous and overlapping theorisation, institutions-as-rules and institutions-as-equilibrium reflect an inherent antinomy since both perspectives are equally rational and are able to explain institutional change. However, in essence, full acceptance of one perspective contradicts the other perspective. Consider, for example, the increasing consumption of bottled water and refill water in which the most expensive drinking water sources have been successfully penetrating the urban poor (which will be discussed further in **Chapters 5 and 6**). Those two perspectives can be exemplified in two propositions:

Thesis: Institutional rules are responsible for the increasing consumption of bottled water and refill water. Therefore institutional change requires rules for adjustment, regardless of the motivation of consumers.

Anti-thesis: Internal motivation, the desire to consume bottled water and refill water, is responsible for the increasing consumption of bottled water and refill water. Therefore, institutional change requires motivational change, regardless of external rules.

What is the solution to the antinomy exemplified above? If we follow Kant’s line of thought, the solution for antinomy is actually simple: “precisely to conceive of them as antinomies, not as contradictions” (Žižek, 1993, p. 110). For practical reasons, both propositions have been implemented anyway; i.e. conducting rules adjustment through policy making and at the same time campaigning for motivational change. Before we come to the definition of institutions, in light of the acceptance of inherent antinomy, let us consider excellent remarks made by Deleuze in *Kant’s Critical Philosophy* (1984, p. 37) that “practical reason cannot prevent itself from setting up a link between *happiness* and *virtue*...” which pertains to the antinomy of institutions-as-rules (e.g. virtue) and institutions-as-equilibrium (e.g. happiness). According to Deleuze, the cause of virtue cannot be happiness (since it is the

law that dictates the principle of goodwill) and, vice versa. Virtue is insufficient to be the cause of happiness (since the law is not ordered according to the intentions of goodwill). Hence, following Deleuze’s line of thought: similar to the inevitability of the antinomy, practical reason itself requires a link between happiness and virtue, or, in the case of this dissertation, between institutions-as-rules and institutions-as-equilibrium.

Here is my proposal for the working definition of institutions in this dissertation. If we borrow the terms from Giddens’s structuration theory, then institutions-as-rules can well serve as ‘the structure’ whereas institutions-as-equilibrium can fill in the role of ‘agents’ (Giddens, 1984). Thus, if Giddens can resolve the relationship between structure and agents through structuralist treatment of ‘duality of structure’ as both medium and outcome of actions, then a similar structural approach can be used to define institutions as “recursively reproduced sets of rules and resources that constrain and enable social action” (Jessop, 2004. p. 3).

2.2 INSTITUTIONAL ANALYSIS

In order to develop the research methodology, I follow the methodology of institutional analysis devised by Ostrom *et al.* which has been summarised in the IAD framework (Figure 2.1). The analysis involves “decomposition of institutional contexts into their component parts” to understand the interaction of those component parts and how it shapes outcomes (McGinnis, 2011. p. 170). As noted by Harvey (2011. p. 107), “the “rich mix of instrumentalities” that Ostrom begins to identify—not only public and private but also collective and associational, nested hierarchical and horizontal, exclusionary and open—will all have a key role to play in finding ways to organise production, distribution, exchange, and consumption to meet human needs.”. Therefore, in this section, I describe the steps for institutional analysis and tinker with the IAD framework to provide a fruitful, explorative and rigorous base for the research methodology.

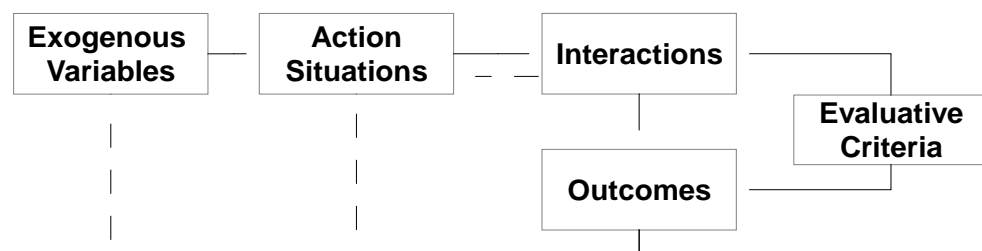


Figure 2.1 Framework for Institutional Analysis (source: Ostrom, 2011)

The first step of institutional analysis is defining an *action situation* as the unit of analysis (Ostrom, 2011). Action situation is the ‘black box’ (McGinnis, 2011) of the decision-making process where actors in a set of positions make choices and act to achieve certain outcomes based on different costs and benefits attached to actions and outcomes (Imperial, 1999). Consequently, the structure of an action situation includes: (i) the set of actors (ii) the positions (iii) the set of allowable actions (iv) the potential outcomes (v) the level of control over choice (vi) the information available (vii) the costs and benefits of actions and outcomes (Figure 2.2).

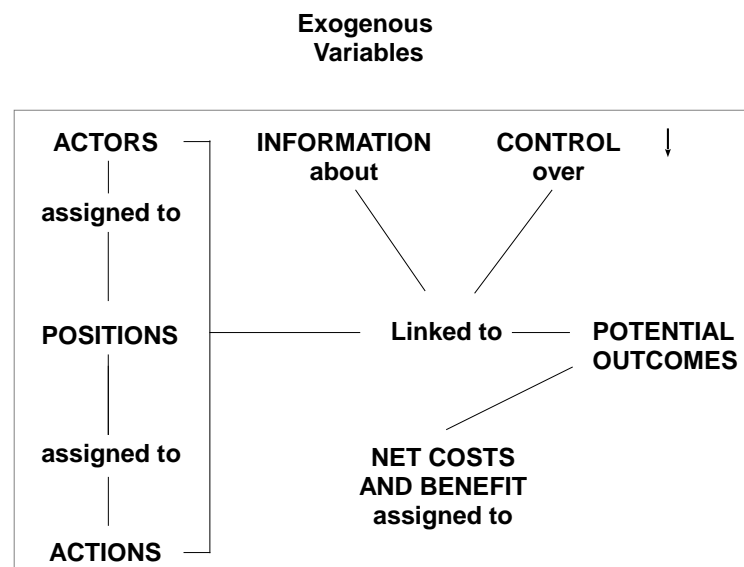


Figure 2.2 The Internal Structure of Action Situation (source: Ostrom, 2011)

After identifying factors that affect the structure of action situations, the next step is to explore how an action situation changes over time due to actors' evaluation of the outcomes at the earlier time thus affecting future decision making (Table 2.1). External variables structure the action situation and the pattern of interaction generates outcomes which, in turn, will affect the condition of exogenous variables and choices made in the action situation over time. In relation to actors, rules and contextual factors are interrelated and shape the available set of actions and their positions and the possible outcomes (McGinnis, 2011; Ostrom, 2008). With limited information about the possible outcomes and associated benefits and costs, actors firstly establish position rules and authority rules to create positions with different levels of authority that specify whether the actions must, may, or may not be taken. The actors then perform continuous trial and error activities and, parallel

with increasing information and knowledge accumulation, refine the rules to maximise the benefits. Thirdly, contextual factors cover all aspects of the political, social, cultural, institutional and biophysical environment which set the context and influence the actors and the decisions they make (McGinnis, 2011).

Table 2.1 Summary of Terms (source: Imperial, 1999; Ostrom 2005; Ostrom, 2008; McGinnis, 2011)

Component	Definition
Institution	An enduring regularity of human action structured by rules, norms, or shared strategies and the realities of the biophysical world
Action Situation	The black box of the IAD Framework in which actors observe information, select actions, engage in patterns of interaction, and realize outcomes from their interaction
Rules	Prescription that forbids, permits, or requires some action or outcome and the sanctions associated with failing to follow a rule; they can be formal (e.g., laws, policies, regulations, etc.) or informal (e.g. behavioural norms)
Position Rules	Create the positions (such as provider, mediator, evaluator, etc.) that actors hold
Authority Rules	Specify which set of actions is assigned to which position
Payoff Rules	Affect the benefits and costs assigned to participants in light of the outcomes achieved and the actions chosen by the participant
Information Rules	Affect the level of information available to participants about actions and linkages between actions and outcomes
Community Attributes	Encompass all relevant aspects of the social and cultural context within which an action situation is located
Biophysical Conditions	Biophysical variables that affect human interactions and change in strategies

2.2.1 Multiple Water Sources as the Action Situations

Considering the reality of Jakarta's water supply that involves multiple water sources, I select multiple water sources as the action situation and urban water access as the outcome (Figure 2.3). The options of multiple water sources in Jakarta are: piped network water, shallow and deep groundwater, public hydrant, vended water, rainwater, depot and bottled water (Bakker, Kooy, Shofiani, & Martijn, 2006; Kooy, 2008). Accordingly, these sources of water correspond to the structure of action situation (Figure 2.2).

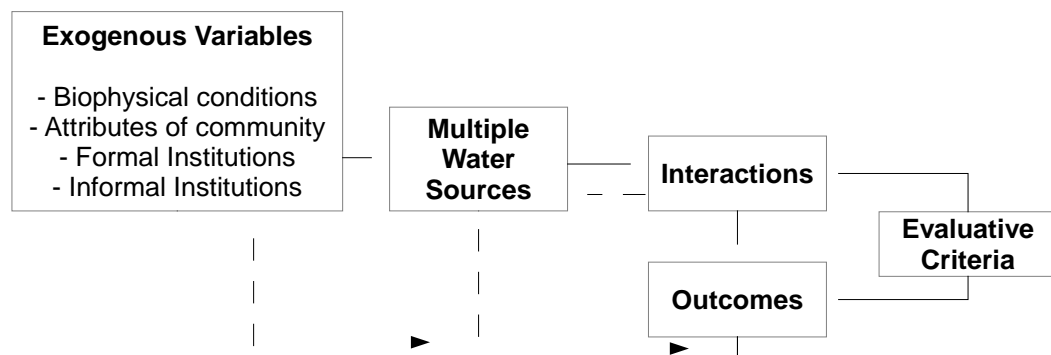


Figure 2.3 Preliminary Framework for Institutional Analysis of Urban Water Supply in Jakarta

(source: Author)

To analyse the process of institutional change, past outcomes are assumed as the main reason for actors to make choices in present time. Actors may select a combination of institutions after evaluating past outcomes. The actors are: households as consumers, governmental organisations, water supply companies (public and private), regulatory boards, aid agencies, multilateral development banks, non-governmental organisations, community organisations, professional associations and informal water providers. These actors then influence decision making on the appropriation of multiple sources of water. Meanwhile, the structure of action situations corresponds to rules made by actors (Table 2.2). After defining the structure of the action situation, institutions can be defined based on the creation, communication and enforcement of the rules (Helmke & Levitsky, 2004).

Table 2.2 Set of Questions developed from IAD framework (source: Author)

	Component	Questions
A	<i>Action Situation</i>	
A1	The set of actors	Who are the actors in urban water governance?
		Who are the consumers of the urban water supply?
		How much water do they draw?
A2	The positions	What positions exist (e.g. consumers, local leader, field technician, government official)?
A3	The set of allowable actions	What are the options for multiple sources of water?
		What sources of water are being used?
		Are there any limits on water use?
A4	The potential of outcomes	What are the impacts of choices made by the actors?
		What are the impacts on other actors?
		What chain of events link action to outcomes?
A5	The level of control over choice	Do households need permission to appropriate water?
		If yes, from who? If not, are there any attempts from other actors to control the water sources?
A6	The information available	Do actors know the condition of the water resources?
		Do actors know about choices made by other actors?
A7	The costs and benefits of actions and outcomes	How costly are various actions to each actor?
		What are the benefits of group actions?
B	<i>Biophysical Conditions</i>	What is the contribution of different water source conditions to institutional pathologies? (e.g. what would the difference be between areas with different groundwater quality?)
		How do actors adapt to climate variability? (including possible extreme events such as drought and floods)
C	<i>Attribute of Community</i>	How do certain socio-economic attributes of community influence decision-making

	Component	Questions
		processes?
D	<i>Outcome: Urban Water Access</i>	In what ways is water access influenced by institutional pathologies in the regulation of multiple water sources?
		How do actors regularise the rules, constituted by habits of thought and behaviour, to acquire water access?

2.3 INSTITUTIONAL PATHOLOGIES

In this section, I review the literature on institutional pathologies that could be helpful in constructing a conceptual framework to analyse urban water governance. However, institutional pathologies have been under-theorised and there was a lack of literature that specifically deals with urban water governance. To fill that theoretical gap, I make use of literature that has discussed institutional pathologies from the field of Natural Resource Managements (NRM) and International Relations (IR) from which I can distil relevant knowledge to build the theoretical framework (Table 2.3). NRM literature is related to the socio-ecological context of urban water governance while the IR literature is relevant to the context of contemporary global privatisation. Both literature sources pinpoint bureaucratic culture as the source of institutional pathologies.

From the field of NRM, according to a seminal article by Holling and Meffe (1996), institutional pathologies are the result of command-and-control management, a problem solving method through control of the processes that produce the problem (e.g. health and hygiene to prevent disease, or laws to regulate human behaviour) or through relieving ills after their occurrence (e.g. jail for criminals, or sanatorium for schizophrenics). Using the concept of resilience, they define a institutional pathology as ‘loss of system resilience when the range of natural variation in the system is reduced’ (Holling & Meffe, 1996). Furthermore, they argue that chronically pathological bureaucracies are not resilient since the system tends to maintain conformity by eliminating and punishing defiant behaviour. This reduces variability and constraining the possibility of innovation (*ibid*).

Briggs (2003) reviews Holling & Meffe’s (1996) article and goes further by examining the causes of the symptoms of institutional pathologies as well as considering a diagnosis to treat them. A strong predictor of the pathologies is related to the arrangement position and

authority of the actors. For instance, the creation of a new organisational position with its associated responsibilities without recognition of providing sufficient authority and capacity can paralyse the organisation itself (Briggs, 2003). She then suggests two approaches to diagnose and treat the pathologies: first, attention to the intractability of the problem and, second, changing the culture of the pathological institution from *within (ibid)*. McLaughlin and Krantzberg (2006) follow the same line of thought in their theoretical framework based on the work and outlines developed by Holling & Meffe's (1996) and Briggs (2003). From this they apply the concept of institutional pathologies to measure the ecosystem health of a major water body, the US-Canada Great Lakes. To overcome the pathologies, they then proposed 'double-loop learning', which refers to the processes of changing the frame of reference and questioning the guiding assumptions (McLaughlin & Krantzberg, 2006; Pahl-Wostl, 2009).

Table 2.3 Institutional Pathologies from the field of NRM and IR

Institutional Pathologies	Definition	Remarks
Natural Resource Management	Loss of system resilience when the range of natural variation in the system is reduced (Holling & Meffe, 1996)	Approaches to diagnose and treat the pathologies (Briggs, 2003) 'Double-loop learning' as a mean to overcome institutional pathologies (McLaughlin & Krantzberg, 2006; Pahl-Wostl, 2009)
International Relations	Development of distinctive internal cultures that can promote dysfunctional behaviour (Barnett & Finnemore, 1999)	Three mechanisms of bureaucratic culture that produced institutional pathologies: the irrationality of rationalization, universalism, and normalisation of deviance (Barnett & Finnemore, 1999) Institutional pathologies are produced by the interaction of national and international actors who practiced 'informal normativities' to generate opportunities for exploitation and manipulation (Sandvik, 2011)

From the field of IR, Barnett and Finnemore (1999) discuss institutional pathologies using a constructivist approach and sociological institutionalism to develop Weberian arguments for pathological bureaucratic culture of international organisations⁷. They defined

⁷ Barnett & Finnemore's study is largely based on intergovernmental organisation. However, their conceptualization of institutional pathologies can be applied equally to other organizations such as NGOs and state authorities.

a pathology as development of “distinctive *internal* cultures that can promote dysfunctional behaviour” and after that suggest three mechanisms of bureaucratic culture that produced institutional pathologies. These exist in any bureaucracy to a different degree. The devices were recognised as: the irrationality of rationalisation, universalism and normalisation of deviance (Barnett & Finnemore, 1999. p. 718). The first mechanism, irrationality of rationalisation refers to processes in which rules, norms and strategies are used to pursue the goal and which become ends in themselves. For instance, a water company that aims to increase the number of connections and service coverage to increase the access to water will use those goals as an end and instead of forgoing the target of accessibility.

The second mechanism, universalism, refers to the tendency of proposing a universal solution as a generic antidote for multiple problems without being attentive to specific local contexts. For instance, privatisation and remunicipalisation are both being offered as the solutions to solve the problems of urban water governance. Each proponent will argue that its method is the most potent antidote. The third mechanism, normalisation of deviance, occurs when exceptions to rules become routine over time instead of being integrated as part of normal procedures. For instance, informal negotiations involving rent-seeking behaviour of street-level officials become the ‘normal’ procedures to obtain and maintain piped water connections, since the practice is prevalent and regularised in the daily bureaucracy actions.

Based on a study of Kampala refugee (re)settlement, Sandvik (2011) argues that institutional pathologies are produced by the interaction of national and international actors who practised ‘informal normativities’ to generate opportunities for exploitation and manipulation. The study follows Barnett & Finnemore’s (1999) conceptualisation of knowledge control as the basis of bureaucratic power from which the categories of formal, informal and illegal activities can be put in place by national and international actors who possess extensive useful information. Moreover, she argues that opportunities for informal and forbidden practices are sustained by the normalisation of such deviant behaviours at all governance levels.

From these documented observations in the literature, cross-cutting conceptualisations can be distilled into four points. First, due to the metaphorical and analogical nature of institutional pathologies, the concept of ‘pathology’ itself has been shifting from a measurement of ‘diseases’ to an assessment of ‘health’. While Hogwood and Peters (1985) conceptualise pathology as a form of governance disorder, literature sources from NRM have been moving forward by conceptualising pathology as a loss of system resilience. The consequence of this trend is success in redressing the metaphorical and

analogical nature of 'pathology' without relying too much on medical science. Such a distinct and focused conceptualisation of pathology from the field of NRM has enabled its ability to measure ecosystem health (Holling & Meffe, 1996; Briggs, 2003; McLaughlin & Krantzberg, 2006).

Second, the diagnosis of institutional pathologies can begin by identifying the symptoms of a routinised and ritualised internal bureaucratic culture. Using resilience theory, the theorists from the field of NRM term the symptoms as being 'unresilient' typical of a bureaucratic system where there is a strong domination of command-and-control management in which highly rigid bureaucracy tends to maintain conformity (Holling & Meffe, 1996; Briggs, 2003; McLaughlin & Krantzberg, 2006). The theorists from the field of IR then expand the conceptualisation of internal bureaucratic culture that leads to institutional pathologies by proposing basic mechanisms that can promote the symptoms of dysfunctional behaviour (Barnett & Finnemore, 1999; Sandvik, 2011).

Third, the relationship between institutional pathologies and the tendency of bureaucracy to classify information and fix meanings to the classification diffuses the norms that develop from those fixed meanings (Barnett & Finnemore, 1999). The actors who have the advantage in terms of information can then maintain deviant behaviours and integrate them into 'normal' bureaucratic practices, while making use of the opportunities at the same time. Fourth, informalisation is the process of normalising deviances that occur after initial deviant behaviours or practices became a precedent, are repeated and then finally integrated as part of normal bureaucratic culture (ibid).

In this dissertation, I specifically address three institutional pathologies: patrimonialism, confidentiality and informality (Table 2.4). Each pathology will, in turn, be discussed in the sections that follow.

Table 2.4 Patrimonialism, Confidentiality, and Informality

Pathology	Literature
Patrimonialism	Pre-modern societal arrangement that survives in the modern era in the form of personal rulership (Roth, 1968)
	One of the cultural roots of Indonesian patrimonialism: the political system of earlier, pre-colonial Javanese empires that idealised an absolute state with an absolute monarch as the leader who possessed a supranatural mandate (Crouch, 1979; Liddle, 1991)
	Strong patrimonial characteristics during the Guided Democracy period at the end of the rule of Sukarno, the first president and which continued under Suharto, the second president of independent Indonesia (Crouch, 1979)
Confidentiality	Organisational obsession over maintaining administrative secrecy, as a means of maintaining competitive advantage with rivals (Rourke, 1957)
	Classification of public information and knowledge is an elementary feature of bureaucracies through which they can gain autonomy and authority (Barnett & Finnemore, 1999).
Informality	Complex network of meta-rules that tells us how we are to relate to explicit norms on which every legal order or every order of explicit normative behaviour has to rely (Žižek, 2008)
	Informalisation is a process of normalising deviances that occur after initial deviant behaviours or practices have become a precedent, are repeated and are finally integrated as part of a normal bureaucratic culture (Barnett & Finnemore, 1999)

2.3.1 Patrimonialism

Within the wake of the decolonization wave, and after a seminal article by Roth (1968), there was an upsurge of interest in patrimonialism that sought to explain state-building and national integration in the seventies (Theobald, 1982). Roth developed the concept of patrimonial rule from Max Weber's typology of *Herrschaft* as a form of pre-modern societal arrangement that has survived into the modern era. He considers two types of patrimonialism: first, a small number of regimes built their legitimacy from traditional grounds, for example, pre-revolutionary Ethiopia, and second, a more common type of "personal rulership" that operationalised under transaction of material incentives and rewards rather than a divine belief in the ruler/leader's personal qualifications. This occurred both in the northern and the southern countries. This personal rulership phenomenon can be observed both in public and private bureaucracies. Roth suggests that this feature is ineradicable and "transcends the dichotomy of tradition and modernity" (Roth, 1968, p. 197).

As suggested by Roth (1968), patrimonialism exists both in the traditional and the modern state. It can be traced from a pre-modern societal arrangement, characteristically traditional monarchy rule. Nevertheless, regionally, when comparing the situation in some neighbouring countries in South East Asia, most of the traditional monarchy rulers in Indonesia did not survive. Malaysia still retains their sultans as an inseparable part of their federal monarchy system. Brunei is a Malay-Islamic absolute monarchy country. Thailand is a parliamentary monarchy country and the current king is the longest reigning monarch, whereas virtually almost all Indonesian royal palaces are merely spots of tourism interest (Van Klinken, 2008).

In the case of Indonesia, although the traditional monarchy rulers did not survive, the traditional culture has continued as practised by the modern rulers⁸ (e.g. the president) of Indonesia who exercise patrimonialism as a means to maintaining harmony (*kerukunan*). One of the cultural roots of Indonesian patrimonialism is the political system of earlier, pre-colonial Javanese empires that idealised an absolute state with an absolute monarch as the leader who possesses a supranatural mandate (Crouch, 1979; Liddle, 1991). The first and second presidents of Indonesia, Sukarno and Suharto, subscribe to Javanese mystics (*Kejawen*) and they both consciously promoted political, social and cultural relationships based on Javanese norms (Antlöv, 2005; Geertz, 1963). These are related to confidentiality and informality that are two institutional pathologies that will be discussed in the next sections. Interestingly, an American who lived in Indonesia in the 1970s noted precisely the embodiment of Javanese polity as follows:

“...Javanese people almost never raised their voices or showed anger to others because maintaining social harmony, keeping the world from running amok, was to them as important as being right is to Americans. In the seventies Indonesians usually expressed a criticism by the words and the syntax they chose to use in conversation, never by raising their voice. They avoided calling someone directly by their name, unless they wanted to show displeasure. It was expected that one would bow his head forward slightly when addressing someone who was respected or who was of higher status; and it was extremely rude to criticise someone explicitly and directly. Women were particularly enjoined to show their modesty by behaving in this way, often in the extreme. Also, contrary to normal Muslim practice, the term *Insha'Allah* (“God Willing”) could mean “no” when someone couldn’t respond with “yes”, such as to an invitation for lunch, because a direct negative response might unsettle the relationship.” (Heneveld, 2013)

⁸ In the post-Independence era, the patrimonial preference for the President of Indonesia is likely to be a Javanese-Muslim. Consider the fact that although the Vice President (and defunct position of Prime Minister) of Indonesia came from diverse ethnical backgrounds, the President of Indonesia has always been Muslim and possesses Javanese blood.

Considering the salient feature of patrimonialism, in the case of Indonesia, a patrimonial ruler begets another patrimonial successor. Crouch (1979) examines strong patrimonial characteristics during the Guided Democracy period at the end of the rule of Sukarno which was continued by Suharto, who branded his regime as 'New Order'. He then argues that there are two conditions to maintain patrimonial rule: the ideological homogeneity of the political elites and the passivity of the politically isolated masses. The character of traditional patrimony is apparent during Guided Democracy. Sukarno was alleviated as a lifetime president and, in order to secure support and counterbalance the power of the military dissidents, he created the ideological triangle that represented a nationalist-religious-communist axis. After the downfall of Sukarno, the practices of Suharto's 'New Order' resembled the patrimonial model in which, rather than policy and regulation, elite political competition involved "power and distribution of spoils" between the military and the technocrats. At the same time this stance politically isolated "the masses in urban slums and rural areas" in pursuit of a developmentalist (*pembangunan*) ideology and to maintain national stability (Crouch 1979; p. 578).

Liddle (1996) expands on Crouch's analysis by categorising the factions in the 'New Order' regime as three groups: namely, the economists or the technocrats; the technicians or the economic nationalists; and the patrimonialists. The technocrats were Western-trained economists and their intellectual base was the University of Indonesia and their bureaucratic positions were in the Ministry of Finance and National Planning Agency (BAPPENAS). The technicians were mostly engineers who gained high-level managerial positions. Their intellectual base was the Bandung Institute of Technology and they found their home in the Ministry of Trade and the Ministry of Industry as well as the Ministry of Public Works. The patrimonialists comprised military personnel, elite bureaucrats, family and cronies, and elite member of former ruling status-quo party (Crouch, 1979; Liddle, 1996).

2.3.2 Confidentiality

Based on the case study of American bureaucracy, Rourke (1957) argues that the root of confidentiality can be traced to the organisational obsession of maintaining administrative secrecy, which is rationalised as a means to maintaining competitive advantage with rivals. The tradition of maintaining administrative secrecy can be seen in public organisations (i.e. military and diplomatic secret) or private organisations (i.e. as a trade secret). As for public

organisations, state secrecy had to correspond to public interest to avoid any contrary claims. Thus confidentiality can be indispensable and compulsory: for instance, in the case of witness protection and medical records, as well as disclosure of military and diplomatic secrets. Nevertheless it has to be noted that the classification of confidential information is “somewhat more complex”; it is a product of bargaining between legislative, executive and judicative branches and the interest of each branch may not be aligned (Rourke, 1957. p.28). As for private entities, since they have the obligation to report their financial data to state authorities, government has more complete information and much of this information is filed with legal guarantee that it will not become available for public consumption.

Considering the domain of water as a public good, confidentiality of public information would be of interest in this research. As discussed earlier in this section, classification of information and knowledge is an elementary feature of bureaucracies by means of which they could gain autonomy and authority (Barnett & Finnemore, 1999). In the context of Indonesian bureaucracy, public organisations have a strong tendency to maintain asymmetrical access to information. On the one hand, public organisations tend to refuse to disclose public information, that supposedly should be available for public consumption, such as the audited annual district budget (Anggaran Pendapatan dan Belanja Daerah, APBD). For instance, Kristiansen, Dwiyanto, Pramusinto, and Putranto (2009) investigated financial transparency in Indonesia’s public sector reforms. They revealed that government often used the rhetoric of ‘state document’ to legitimise classification of most public financial documents as confidential information.

On the other hand, public organisations were also inclined to absorb confidential information from the public sphere to the greatest possible extent as far as they possibly go, a situation that could tamper with professional ethics standards. For instance, in the field of academic research, Hill (2007) describes how foreign researchers in Indonesia face an ethical dilemma. As a pre-condition for a research visa, they have to obtain approval from Indonesian Scientific Institute (Lembaga Ilmu Pengetahuan Indonesia, LIPI). However, to do so they have to submit confidential information (such as a complete list of interviewees, audio-visual recordings etc.). This could comprise the professional ethic of participant confidentiality. (I briefly touched upon the impact of confidentiality of public information to my fieldwork in **Chapter 1**).

As a final remark, it has to be highlighted that, in this digital age, confidentiality is related to information flows that are mediated via the media and technology. Whereas in the past bureaucracies could legitimise their authority and maintain a grip on state-controlled

media, today the progress made in information technology allows for information flows to go beyond the purview of state control. For instance, in the case of aggressive penetration of social media into private life. Moreover, the recent trend of stipulation of Freedom of Information (FOI) laws has further increased the pressure on bureaucracies to maximise the level of disclosure of public information.

2.3.3 Informality

In the literature an abundance of references covering the “informal” theme in urban water supply exists. These studies mostly focus on *actors* involved in informal institutions under different terminologies such as “independent providers” (Collignon & Vézina, 2000), “non-state providers” (Batley & McLoughlin, 2010; Sansom, 2006), “alternative providers” (Gerlach & Franceys, 2010), or “small-scale private providers” (Kariuki & Schwartz, 2005; Sima & Elimelech, 2011). This trend in the literature coincided with the growing interest of multilateral aid organisations, such as the World Bank, UN-HABITAT and the European Union. They were showing specific interest in the role of the actors in the supply of urban water (Moretto, 2007). In this section, rather than focusing on the actors, I focus on the *rules* that structured those actors to illustrate the concept of informality, using Jakarta water governance as a case study.

Being partially situated below the sea level, North Jakarta is an area that experiences low water pressure. The water connection is intermittent—it may only run at night. The density of piped water connections is perhaps the lowest in Jakarta and households with piped water connection still have to have an additional investment in equipment like an electric pump or water storage facility to cope with the problem of low water pressure. Interestingly, in recent times a local government office in an area with low density of piped water connections is entitled to get a premium piped water connection, with better pressure and less intermittent. The *passé-partout* of this deviance is the connection between the sub-district leader, the lowest leadership position in Jakarta government and the technical crews of the private water company. The exchange is an additional “technical fee” with the service of bypassing the main pipe to the local government office.

The relationship between the sub-district leader, a representative of the public sector, and the technical crews, representatives of the private sector, shows that informality of institutions is one of the key issues in urban water governance. The sub-district leader and

the technical crews engaged in using a set of rules that operates outside of the formal rules stipulated in government or corporate regulations.

In *Violence*, S. Žižek (2008) highlights the impact of habits of practice in Russia during the communist regime that lingers in the post-communist regime, which is akin to the issue of informality of institutions in urban water governance. During the communist regime, the market operated within an inefficient state-planned economy, thus, although there were formal rules, people used implicit rules, often unwritten, and “everyone knew whom to address, whom to bribe, what you could and couldn't do” (Žižek 2008:160). After the dissolution of the Soviet Union, the daily life of ordinary people was completely changed because these implicit rules were no longer in use. As a result, there was an institutional shock: people were unable to relate to explicit legal regulations and, at the same time, informal rules were blurred.

Should a city move forward towards universal access of piped water connection, similar problems to those of post-communist Russia may arise, while (good) urban water governance demands transparency and accountability. For instance, as a result of the enactment of new rules that incorporate transparency and accountability, households that previously bought water from cart vendors had difficulty in adapting to a set of rules accompanying a piped water connection: to whom complaints should be addressed; whom to bribe for a better connection; and what they could or could not do with the connection. Therefore, in order to effectively enforce formal rules accompanying the provision of water, informal rules had to be taken into consideration as part of the framework of urban water governance.

Ostrom (2005) stresses that identification and measurement of institutions should focus on rules-in-use rather than rules-in-form. Rules-in-use refers to actual rules that are to be used although they might contradict legal regulations. Superficially, rules-in-use and rules-in-form could be used interchangeably with the former for informal institutions and the latter for formal institutions. However, (Guha-Khasnobis, Kanbur, & Ostrom, 2006) caution the possibility of banal conceptualisation of informality, associating it with ‘unstructured’ and ‘chaotic’. Although they argue that institutional analysis should go beyond informality, they highlight that there is a continuum from rules-in-use to rules-in-form rather than a clear split between formal and informal. This concept can be fruitfully used to characterise the continuum of official intervention.

The degree of informality of institutions or the distinction between formal and informal institutions is conceptualised in three main tenets. First, some scholars consider

formal rules made by government as formal institutions, and customary or traditional laws as informal institutions (Aubriot & Prabhakar, 2011). Second, other scholars contrast the state and civil society as two poles of (in)formality where the former is considered formal and the latter as informal (Holmes, Michael, Toyah, Michael, & Salmador, 2012; Sokile, Mwaruvanda, & Koppen, 2005). Third, there are those who focus on the enforcement mechanism in which formal institutions are forced by a third party while informal institutions are self-enforcing (Johannes, Denis, Sebastian, & Indra, 2007; Williamson, 2009).

Helmke and Levitsky (2004) argue that these three conceptualisations are too narrow to capture the dynamics of informality, which may have something to do with traditional culture, but persist within the state, and may well be enforced by third party too. This is apparent in the case of Jakarta's urban water supply sector where the primary factor of governance failure can be attributed to bureaucratic norms not being feasible in informal institutions. Poor households are not prioritised and subsequently, neither is the provision of piped water (Bakker et al, 2008). Bureaucratic norms also allow informal institutions to operate in slum settlements where public hydrants are controlled by local informal actors (Kooy, 2008; Menzies & Setiono, 2010).

Indeed, informality itself is a debatable subject, particularly in the context of development. For instance, should we use the term slum or informal settlement? non-state or informal actors? informal or small-scale private providers? unofficial or informal intervention? This study, however, primarily focuses on the informality of the institutions (rules). It considers other usage of 'informal' as secondary and applicable to specific interpretation: in the arena as settlement; actors as providers; and action as intervention. Nevertheless this dissertation recognises that, in essence, formal-informal may represent a false binary because in reality institutions have both formal and informal aspects. Pragmatically this study employs informality as a lens to understand "meta-rules" that "make up the domain of habit" that may not be apparent but cannot be separated from urban water governance. In turn, informality can be used as part of the design considerations for legal regulations (Guha-Khasnabis et al., 2006).

2.4 CONCLUSION

In this chapter, I have provided the theoretical framework for institutional theories based on a brief critique on the theoretical continuity of old and new institutionalism. Although there were attempts to create a sharp division between the old and the new, on

closer inspection we can see that both have fundamental similarities and it is not harmful to include both rules and organisations as the subjects of institutional analysis. Based on the discussion on the antinomy of institutions-as-rules and institutions-as-equilibrium, I then offered my working definition of institutions that takes into account the linkage between and the recursive reproduction of external rules and internal values. As a prelude for the methodology section, I then provided steps of institutional analysis developed from the IAD framework.

After that, I developed the conceptual framework for institutional pathologies based on NRM and IR literature and distil the cross-cutting conceptualisations. Accordingly, I have identified three institutional pathologies—patrimonialism, confidentiality, and informality—that are related to urban water access. Finally, both theoretical and conceptual frameworks developed in this chapter will be used as the basis of discussion in **Chapters 5 and 6**, where I will examine the relationship between institutional pathologies and urban water access using the case of Jakarta and the methodology developed in the next chapter.

CHAPTER THREE – METHODOLOGY AND AREA OF STUDY

3.1 INTRODUCTION

In this chapter, I deal with the research methodology and describe the study area of this dissertation. In the methodology sections, I elaborate on the research methodology and summarise how I implemented the fieldwork. After describing the qualitative research methodology and research paradigm of this dissertation, I continue to explain the details of the qualitative methodology I used to collect the required data. To expand the conceptualisation, institutional ethnography was used. After that, I describe the data analysis method for the data collected from fieldwork and briefly discuss the reliability and validity of the research. Finally, I describe of the study area: giving a brief introduction about Indonesia and then Jakarta, its capital city.

3.2 QUALITATIVE RESEARCH

The term qualitative research refers to a set of techniques and processes to acquire non-statistical data. The collected qualitative data consists of non-numerical records that reflect social phenomena (McNabb, 2013). Qualitative research involves an interpretive research approach to the subject matter and the qualitative researcher attempts to interpret social phenomena based on multiple realities obtained from the research participants (Silverman, 2013).

Qualitative research differs from quantitative research on four philosophical foundations: ontology (how the researcher perceives reality), epistemology (researchers' assumptions of their roles), axiology (the researcher's value system) and methodology (the research process) (Creswell, 2012). Ontologically qualitative researchers embrace the idea of multiple subjective realities as compared to quantitative researchers who assume the existence of single objective reality (McNabb, 2013). In the light of multiple subjective realities, epistemologically qualitative researchers then have to intimately interact with research participants—become accustomed to the way they live and work and to spend time to familiarise themselves with the field—while quantitative researchers normally assume their position as independent observers who are free and distant from the variables under study (Creswell, 2012; McNabb, 2013). Qualitative researchers axiologically then admit to the

value-laden nature of the study and are actively aware about their values and biases—which gives rise to personalised rhetoric in their writing style—while quantitative researchers overtly prefer to act in a ‘value-free’ and unbiased manner (*ibid*). Finally, the methodological difference. In qualitative research data collection, analysis and theory building are intertwined more intimately in an inductive manner as compared to quantitative research that tends to follow a strict set of rules and formal processes, for example, in statistical analysis or modelling (Babbie, 2013; McNabb, 2013).

Therefore, qualitative research calls for different skills and procedures as compared to quantitative research (Babbie, 2013). While quantitative research heavily relies on mathematical and statistical approaches, generally qualitative data are obtained from three methods of data collection: interviews, observations and written documents (Patton, 2005a). In the context of qualitative method, documentary analysis was extensively used for this dissertation and will be discussed further in a separate sub-section.

3.2.1 Research paradigm

The characteristics of research methods depend on the research paradigm. In turn, the paradigm guides the development of the data collection method. Applicable to this study is the taxonomy Ponterotti (2005) devised in which he identified are four research paradigms: positivism, post-positivism, interpretivism and critical-ideological. While the first and second of these are chiefly quantitative methods, the third and fourth paradigms are chiefly qualitative. Both positivism and post-positivism derive from the assumptions of universal objectivity in singular reality that can be measured empirically (Creswell, 2012; McNabb, 2013). In contrast, interpretivism and critical-ideology are paradigms that are based on the relativist position in which the realities are socially constructed by participants—although the latter paradigm stresses power relations that shape the constructed life experience of participants (Babbie, 2013).

With regard to the research objectives, the research paradigm of this dissertation is interpretivism that aims to capture the socially constructed realities of institutions. Institutions, as described in the previous sections, are the result of regularised human actions therefore interpretivism research paradigm enables the multiple experiences (regular actions) of the research participants (actors) to be captured qualitatively as socially constructed realities. Accordingly, the experiences of the participants reflect symptoms of institutional pathologies and possible influences to urban water access.

3.2.2 Beyond talk: documentary analysis and institutional ethnography

Documentary analysis, as a qualitative method of inquiry, refers to the examination of a wide range of textual records, which include official publications or reports from organisations, policy and law, minutes of meeting and correspondence and written responses to questionnaires and surveys (Patton, 2005a). Nevertheless, acknowledging the recursive reproduction of institutions as discussed in **Chapter 2**, I propose to expand the conceptualisation of documentary analysis by using institutional ethnography too as a field research paradigm.

While in-depth interviews produce ‘talk’ or other forms of verbal recording that reflect the multiple realities of research participants, there is other qualitative data that needs to be taken into account since *texts* (e.g. document and media) are parts of social artefacts that influence and constitute those multiple realities (Atkinson & Coffey, 2010). Particularly in an urban setting, research participants are continuously exposed to pervasive streams of documents (i.e. official and unofficial pamphlets) and multiple media (i.e. newspapers, television, and the YouTube channel). Thus it is necessary to collect data beyond talk. For instance, domestically urban dwellers are reading newspapers and/or watching television and individuals in organisations are exposed to a textual environment (i.e. charts, reports and plans). These texts serve as “mechanisms for coordinating activity across many different sites” (DeVault, 2006. p. 294). In this sense, documents and media are not merely descriptive but also constitutive of multiple realities that are experienced by research participants. Texts such as community statistics and news from mass media not only describe social phenomena, and therefore cannot be taken for granted as evidence, but they also constitute “their own kinds of reality” (Atkinson & Coffey, 2010. p. 90).

Collecting data beyond talk is in line with the qualitative field research paradigm of *institutional ethnography*, a feminist method that is developed to capture people’s daily experience (Babbie, 2013). Institutional ethnography aims to investigate how the ruling texts of institutional life influence human activities, be it at work or at home, be it consciously or subconsciously (DeVault, 2006). It is a field research paradigm that enables interconnection of ‘ruling relations’ between the researchers themselves and the studied social phenomena; everyday experience of the researcher and research participants; organisational cultural practices; as well as organisational official and unofficial texts (Taber, 2010). According to Smith (2001. p. 164), the pioneer of institutional ethnography, the ruling relations are “essentially text-mediated and it is texts (or documents)... that provide for their capacity to

exist beyond particular times, places, and people's doings". Following institutional ethnography as a qualitative field research paradigm and a proxy to documentary analysis, community documents (for example, pamphlet, petition, letter) are considered as an entry level data that leads to second level data such as institutional texts (for example, policies, reports, statistics) produced by them, to enable exploration of how research participants' lives are socially organised and multiple realities are constructed (Taber, 2010).

Based on the collected documents, there were five types of documents:

1. Official State Documents

The sources for documents from the central government were the Central Statistic Bureau, the Ministry of Health, the National Development Planning Board (the Directorate of Human Settlement), and the Central Commission of Information. The narratives and statistics provided in those documents were considered as the official reference for other organizations at local level. In a similar way, the organizations at local level considered the central government organizations as the official data outlet where publication was only made possible under the auspice of those organizations. The uniform data provided by organizations at local and national level thus enabled the consistency of the bureaucracy. The institutional relations in those documents suggested that those organisations were the actors that shape the water policy at the national level and those documents were meant to coordinate the practices of water policy.

2. International finance institutions (IFIs)

The IFIs were the ever present organizations in the circulation of capital for water supply projects where which the documents had the "capacity to exist beyond particular times, places, and people's doings" (Smith 2001: 164). The authorship of the documents was in form of individuals (e.g. the consultants or the staffs) or institutional (representing the IFI itself). Most of the IFIs documents were dominated by World Bank which implied its durable relationship with the actors involved in Jakarta water supply management.

3. Non-Governmental Organizations (NGOs)

The documents from NGOs were related with the articles in newspapers, and the documents from the water companies (e.g. the Regulatory Body and PAM Jaya). Those documents produced an assemblage of documents—and ruling relations—in its own. For instance, an investigative article by Harsono (2003; 2004) was based on a report of corruption survey in public services by Indonesia Corruption Watch (2000).

Later on, those documents were largely referenced by the official report on “10 Years Public-Private Partnership in Jakarta Piped Water Service” issued by the Regulatory Body (2008).

4. Water Companies (the Regulatory Body and PAM Jaya)

Palyja and Aetra, the private water operators in Jakarta, as compared to its public counterparts (the Regulatory Body and PAM Jaya) offered very limited documents for public consumption; mostly they were annual reports with limited amount of in-depth information. In this context, the Regulatory Body was the one that actively offered open-access documents in their website or their office. Meanwhile, PAM Jaya as a public entity allowed access to their documents after some steps of a formal letter of document request although the documents could not be copied freely. This condition implied that, albeit the primary data sources were the same piped water customers in Jakarta, there was a tension between these organizations that constrained their institutional relations in which data sharing was a bureaucratic task and disclosure to public was limited, *mainly to technical issues*.

5. Newspapers

Newspapers' articles were the most accessible documents as compared to other documents therefore a significant amount of documents were able to be collected, dated from 2003 to 2014. The articles were produced by multiple newspapers outlets in Jakarta (i.e. KOMPAS, TEMPO, the Jakarta Post, Jakarta Globe) and by virtual news portals (i.e. Viva News, Berita Jakarta, Hukum Online). Those documents offered a rich chronological account of the development of Jakarta water supply from time to time.

3.2.5 Data analysis

Once the transcriptions and translations were done the data analysis was effected through the use of NVivo software. However, there were steps in data analysis process that could not be done merely by the software and these were dealt with manually. Steps that were taken in the data analysis are as follows (Blanche, Durrheim, & Painter, 2006):

1. Familiarisation and immersion

On completion of the fieldwork the researcher converted the reality from the fieldwork into text. Thus the first step in the data analysis was to recreate the atmosphere of the reality by

being familiar with the text and being immersed in it. The researcher saw the participants as the actors in institutional analysis and built a record of a textual experience. Accordingly, details of the actors and their experiences that might have been missed in the text could be added during this step.

2. Inducing themes

Concepts and typologies (for example, common words and shared experiences) used by participants were grouped according to identified patterns. The researcher then constructed concepts and typologies based from these patterns into themes.

3. Coding

After providing general ideas at the second step, this third step focused on recomposing those general ideas into parts of an index. Although this step relied heavily on NVivo software, the researcher had revisited the fieldwork diary to anticipate an a priori categorisation when constructing the index.

4. Elaboration

Themes and codes provided by the second and third step were elaborated on based on their linkages. A specific sub-code from one theme could relate to other sub-codes from other themes. At this step, the process can be iterative; returning to theme creation and coding to enable better elaboration.

5. Interpretation and checking

Elaborated data was then analysed and interpreted according to the theoretical conceptual framework. Specifically, the institutional analysis was guided by the IAD framework. The analyses and interpretation were balanced with descriptions that would allow the reader to understand the background adequately. The checking was conducted by revisiting the fieldwork diary as well as returning to prior steps of the data analysis process. For instance, sub-codes that might have been left out could be added and additional elaboration was recorded when necessary.

3.2.6 Reliability and Validity

From the point of view of a quantitative research design, reliability and validity are aspects that can be described with precision using numbers and statistics. These two aspects are necessary to ensure the quality, and the rigour, of the research. The more reliable and valid the research, the better its quality. However, those aspects cannot be translated in the same way for a qualitative research design (Golafshani, 2003).

Quantitative research views reliability as the repeatability of the same method for different cases to produce similar results. Meanwhile, reliability in a qualitative research design pertains to the quality of recordings and transcripts, which allow other researchers to revisit the method in the future (Perakyla, 2004). Accordingly, to improve the reliability of the research, the researcher developed a database that contains digital recordings and transcriptions.

3.3 STUDY AREA

In this section of the chapter, I give a general background to Indonesia as a country and its capital city, Jakarta. I begin with brief comment on the geography and demography of Indonesia based on information found in the *Statistical Yearbook of Indonesia 2013* published by the country's official statistics bureau . I continue with the etymology and languages used in Indonesia, largely with reference to the work of Jan B. Ave (1989) '*Indonesia*', '*Insulinde*' and '*Nusantara*' and *The Indonesian Language: its history and role in modern society* by James Sneddon (2003). After that, I introduce the case study area of this dissertation, Jakarta, using the latest annual statistical report, *Jakarta Dalam Angka 2012*. In this particular sub-section I have taken the liberty of refraining from what I consider as redundant referencing when giving information from the literature sources mentioned here. However, other specific references accompany information from other sources.

3.3.1 Geography and Demography

Geographically, Indonesia is an archipelago country in the maritime region of South East Asia (Figure 3.1) with Australia, Malaysia, Singapore, East Timor and Papua New Guinea as neighbours. It consists of more than 17 000 islands that can be roughly grouped into five large islands (Sumatera, Java, Kalimantan, Sulawesi, and Papua) and four island clusters (Riau, Bangka Belitung, Nusa Tenggara and Maluku). In its entirety Indonesia lies on both sides of the Equator hence a tropical climate is experienced throughout the country—characteristically fairly constant high temperatures accompanied by high humidity (more than 70%) in all seasons. Any temperature variations virtually depend on the specific area's altitude.

Figure 3.1 Map of Indonesia (source: Ministry of Health, 2013)



Demographically, in 2012, the Indonesian population was around 244 million people with a population growth rate of 1.3%. This makes Indonesia the fourth most populous country in the world after the China, India and the United States of America. Administratively, due to the policy of decentralisation and regional autonomy, the number of provinces and regency/municipality (second tier and third tier government respectively) was increasing and up to 2012 there were 33 provinces, 98 municipalities and 399 regencies. Nevertheless the majority of population (more than 60%) is concentrated on Java Island that constitutes around 7% of total area of Indonesia where Jakarta, the economic and political capital and other major cities (e.g. Bandung, Semarang, and Surabaya) are located. In 2010, it was estimated that more than half of the Indonesian population already lives in an urban area that is administratively designated into municipalities. Again, most of these urban areas are concentrated on Java Island and Jakarta has the largest number of people of all the major cities.

3.3.2 Etymology and Language

The name 'Indonesia' was etymologically invented by two British scientists in 1850 who were convinced that the archipelago (in Greek word 'nesos') is an extension of India—although at that time they included the Philippines and excluded New Guinea. The Dutch had

colonised the archipelago from the 17th century and later on, the concept of Indonesia as a distinct political entity was first developed by native students who studied in the Netherlands and formally created Indonesisch Verbond van Studerenden (Indonesian Student Union) at the end of 1917. After that, the term was adopted as a shared political concept for organisations such as Indonesisch Press Bureau (Indonesia Press Agency), Partij Komunis Indonesia (Communist Party of Indonesia), Partai Nasional Indonesia (Indonesian National Party), as well as publications such as the journal of Indonesia Merdeka (Independence of Indonesia) and Naar de Republiek-Indonesia (Towards the Republic of Indonesia), the first book that clearly deliberated about the political image of Indonesia as an independent country. The use of the term as a political entity culminated when the political dream of an autonomous Republic of Indonesia came into being in the Proclamation of Independence of 17 August 1945: 'Kami Indonesia dengan ini menjatakan Kemerdekaan Indonesia' (With this, we, the Indonesian people, declare the independence of Indonesia).

Although there are more than 700 local languages spoken in Indonesia, the national and official language is Bahasa Melayu Indonesia, which bears close similarities to Bahasa Melayu Malaysia, Singapore, and Brunei. Due to the separation of colonial power sphere between The Netherlands and Britain in South East Asia, the former influenced Bahasa Melayu Indonesia while the latter influenced Bahasa Melayu Malaysia, Singapore, and Brunei. After the 1960s, however, the influence of the Dutch language to Bahasa Indonesia diminished and there was an increasing influence of (American) English. Therefore, although Indonesia was colonised by The Netherlands, the Dutch language was rarely used and the younger generations in the population were becoming increasingly familiar with English.

Nevertheless it should be noted that the formal and grammatically correct form of Bahasa Indonesia is rarely used in everyday conversation. Children are taught by their immediate family members in a daily language 'bahasa sehari-hari' which is largely informal and may look like a creole language mix of local, national and international languages. Mostly children only learn about the formal form of Bahasa Indonesia by the time they enter formal education, although this may not be general practice outside of the classroom setting.

3.3.3 Jakarta

Jakarta is a tropical city with an average annual temperature of around 28° C and consistently high humidity, above 70% throughout the year. Due to monsoon patterns ,in general, there are two seasons: dry season (from May to October) and wet season (from

November to April). In 2011, the highest record of rainfall was 230 mm and in the rainiest month, there were 25 rainy days.

Surface water bodies, both natural and artificial, in Jakarta are lakes, swamps and water channels. In total, there are 391 ha of lake and swamp areas and water channels cover 19 ha. Perhaps the most well-known achievement of an artificial water channel is *Banjir Kanal*, 38,550 metres long, which is used to mitigate seasonal flooding. However, it also has a notorious reputation as residents see it as a monstrosity and contend there are administration problems associated with it. Almost 40% of Jakarta is below sea level and the topography is flat. Moreover, it is worth mentioning that it is criss-crossed by heavily polluted rivers. Therefore the raw water for piped water network has to be sourced from the Jatiluhur reservoir, 120 km away from the city centre.

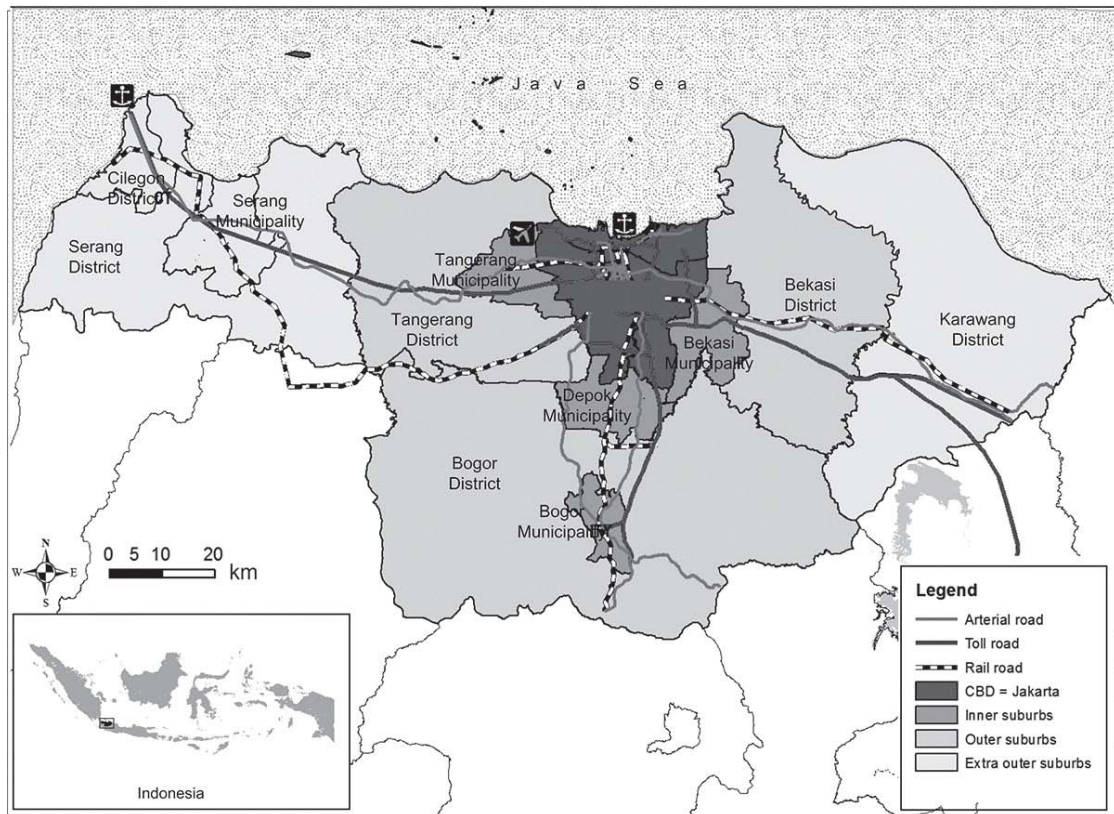
Ground water abstraction in Jakarta has been increasing consistently (Kagabu, Shimada, Delinom, Nakamura, & Taniguchi, 2012). The number of abstraction wells tripled from around 1 000 wells to 3 000 wells between 1980 and 2000. It decreased briefly after the Asian economic crisis in 1997 but the stabilisation of economy afterwards triggered construction of more wells, thus increasing the abstraction of ground water again. The excessive groundwater abstraction has caused environmental degradation, such as, the intrusion of salt water and rapid land subsidence.

Regionally, analysis of climate change trends clearly suggests that Jakarta is experiencing a higher flow of water during the wet season and there is increasing drought during the dry season (Susandi, 2006; Avia, 2007; Sabar, 2010). In terms of climate change, Jakarta emerges as the most vulnerable city in South East Asia (Yusuf, 2009). For the last century, Jakarta has been experiencing apparent climate change about which geophysicists have confirmed that air temperatures increased consistently in Jakarta over the period 1901–2002 (Avia, 2007). Subsequently, hydrologists confirm the trend of the extremes of minimum/maximum discharge during the dry and wet season (Sabar, 2010). This complements the phenomenon of a positive-negative anomaly in rainfall intensity (Susandi, 2006). A positive anomaly refers to increasing rainfall that intensifies the extreme maximum discharge resulting in flooding.

The latest census shows that in 2011 that there were 3 145 016 households, a statistic that could well be translated to approximately 9 million residents. The majority of the residents are graduated from senior high-school. However, Jakarta has the highest number of university graduates in Indonesia since the city is the administrative, economic and intellectual capital of the country and its largest city. Indeed, due to massive population

growth, Jakarta has expanded its area from around 300 to 700 km² over the last four decades and at the same time giving rise to four satellite cities popularly named BoDeTaBek: Bogor, Depok, Tangerang, and Bekasi (Figure 3.2).

Figure 3.2 Map of Greater Jakarta (source: Hudalah, Viantari, Firman, & Woltjer, 2013)



CHAPTER FOUR - CHRONOLOGY OF JAKARTA WATER GOVERNANCE

4.1 INTRODUCTION

In this chapter, I provide a chronology of Jakarta's water governance based on development planning terms set up by the government of Indonesia. As for periodisation, I neatly divided the eras into 'Public Era' (1977-1997) under the rule of Suharto, the second president of Indonesia, and 'Private Era' (1998-2014) which occurs concurrently with the post-Reformation period. In the 'Public Era', development planning is heavily centralised and ritualised by the central government via a 5 year development plan strategy. The private era had a chaotic transitional period at first but after reworking the strategy into 20 year development plan strategy the situation improved. The dynamics of institutional change in these two eras will be illustrated in this chapter and will serve as a background for the analysis for institutional pathologies and their impact on urban water access in **Chapter 5**.

4.2 PUBLIC ERA (1977-1997)

This period is characterised by an intense and intimate involvement of the 'New Order' authoritarian-military government in which the family and cronies of the leaders dominated the governance of Indonesia which had always been centred in Jakarta, the largest metropolis (Cowherd, 2002). In this context, cronies refer to actors who secured a personal relationship with Suharto based on social or business ties (Table 4.1). After the independence of Indonesia, Jakarta was a municipality (second tier government) led by a mayor. In 1961⁹ the status of Jakarta was upgraded to a Special Capital Territory led by a governor. After that, in practical terms, the president of Indonesia appointed the governor of Jakarta (Nas, 1992). The last governor before the 'Public Era' began, Ali Sadikin, survived the violent political manoeuvre of the 'New Order' government although he was a Sukarno appointee¹⁰, and both were in opposition to Suharto (Aspinall, 2005; Budiman, 1969). After the end of the almost 11 years of the Ali Sadikin rule, the ruling period of the governor of Jakarta was normalised to 5 years for each period and all governors came from top-brass military background.

⁹ PP No. 2 tahun 1961 jo UU No. 2 PNPS 1961

¹⁰ Jakarta governor appointed by Soekarno was considered as cabinet member status, an ex-officio that had similar rank with a minister.

Table 4. 1 Position and Authority of National Actors during the ‘Public Era’ (source: author)

Position	Authority	Appointment
President of Indonesia	Near-absolute authority	Engineered election
Ministry of Public Works	Technical aspects	Appointed by president
Ministry of Health	Health aspects	
Ministry of Internal Affairs	Managerial and financial aspects	
Governor of Jakarta	Approve water tariff	
PAM Jaya	Daily water management	Appointed by governor
Suharto cronies	Recommend network expansion	Informal
'Middle-men'	Community liaison with PAM Jaya	

In the ‘Public Era’, the formal template for Jakarta’s water development was derived from a centralised top-down 5 year national development planning strategy called GBHN (General Outline of State Policy), which was dictated by the ‘New Order’ government (PERKIM-BAPPENAS, 2008). The 5 year period established by GBHN was then referred to as *Pelita (Pembangunan Lima Tahun)*, which paralleled each period of Suharto’s presidency, the result of engineered national elections (Cowherd, 2002). Local governments, including the government of Jakarta Province, were directed under the shadow of the central government, particularly in the area of urban services provision, which contributed 95% of the financing of water supply from aid, loans or other sources (Hamer, Steer, & Williams, 1986). To sustain financial stability with this form of budgetary management, the ‘New Order’ government performed an ‘accounting trick’ in which foreign borrowings were treated as revenue to create an impression that expenditure more or less matched government’s revenue and met the doctrine of ‘Balance Budget rule’. However, in reality, since the inception of the ‘New Order’ regime, the government’s budget ran a continuously moderate deficit due to rent-seeking, a form of systemic corruption (MacIntyre, 2000). Therefore, the ‘New Order’ government treated urban water supply as one of the entry points for foreign funding from which rent could be reaped optimally from small numbers of large projects (i.e. a water treatment plant and channel rehabilitation), rather than large numbers of small projects (i.e. hydrant and water terminal) and segmented sectors (i.e. large-scale industries and elitist residential buildings) rather than universal access.

Following the logic of the 'New Order' regime, within the next sections, I will discuss the development of Jakarta's water supply infrastructure and the related rules according to the periodisation of Pelita, up until the downfall of Suharto and the collapse of the regime.

4.2.1 Pelita I – II (1969 – 1979): Background on the Creation of PAM Jaya

During Pelita I (1969-1974) and Pelita II (1974-1979), the priority of urban water development was to increase production capacity through improvement of existing water treatment plants or the construction of new ones. During this decade, Japanese bilateral aid (OECF) and the World Bank Urban Sector Development Loan funded the first Master Plan of Jakarta's centralised water supply infrastructure and capacity upgrade for Pejompongan I & II, the oldest treatment plants built during Sukarno's presidency, in total by 3 000 litres per second, which was sufficient to supply between 40% to 60% of the population (Kooy, 2008).

At the end of this decade, in 1977, the government of Jakarta issued a regulation that formally created PAM Jaya and stipulated its 'dual function' mandate¹¹: the social aim to provide basic environmental services, and the economic aim to contribute to regional growth (Argo, 1999; Kooy, 2008). Concurrently with the formal institutionalisation of PAM Jaya as a state-owned water company, the project of *meterisasi* (installing water meters to the households who had in-house connections) was being pursued although households only needed to pay an 'almost gratis' flat water tariff of IDR 100 per month. The customers were mainly new Indonesian elites who occupied former colonial neighbourhoods and accounted for less than 15% of the population (Abeyasekere, 1985; Kooy, 2008). However, the majority of residents, around 80%, who lived in the *kampung* (informal settlement) did not have access to piped water (*ibid*). It was estimated that in 1976 about 50% of the Jakarta population relied on groundwater and about 40% on street vendors for their water supply (World Bank, 1995).

4.2.2 Pelita III – IV (1979 – 1989): Introduction of Increasing Block Tariffs and Selective Development

Starting from Pelita III (1979-1984), other than production, distribution too was included in the strategy through proposed improvement of in-house connections and

¹¹ The ambiguity of 'dual function' is a typical elusive 'New Order rule'. The most infamous and fundamental dual-function was given to the military, known as *dwi-fungsi* that granted greater political and economic involvement of the military in the daily public life.

intermediate points (hydrants and water terminals). The pattern of selective development, prioritisation for higher income households and business activities, can be observed as well in this decade.

From 1980-1982, financed through both public (PAM Jaya and government of Jakarta) and private (industry and real estate developers) partnerships, a total of six mini-water treatment plants were constructed mainly to provide in-house connections for the elite residential areas and one water treatment plant was specially built for Pulogadung, one of the largest industrial estates in Jakarta (Kooy, 2008). Inheriting the meter system installed from the former period, PAM Jaya introduced increased block tariffs (IBT) for the domestic sector by IDR 25 per cubic metre for the first 15 cubic metres per month while those who purchased water from hydrants or water tankers had to pay IDR 60 per cubic metre. This was more than twice the tariff of households (Bakker et al., 2008; Whittington, 1992).

The low quality of Jakarta's piped water and its externality in this era has been acknowledged. A study that investigated the water quality trend from 1979 to 1984 showed that, at the end of that year, 20.7% of the analysed samples did not meet the microbiological standards set (Tugaswati & Wasito, 1987). To compensate for the low quality of piped water, piped water was boiled for drinking purposes—it was estimated that Jakarta residents spend USD 50 million every year on doing this—equivalent to about 1% the city's GDPI (Bhatia & Falkenmark, 1993).

Since Pelita IV (1984-1989), the central government publically showed their interest in hydrants as well as groundwater. While developing the second master plan for Jakarta's water supply several joint-ministerial decrees¹² were proclaimed relating to technical and financial aspects of the public water supply company. Starting from this period the number of hydrant customers and the volume of water sold by hydrants were being documented in Jakarta Dalam Angka, the annual-official statistics report. Similarly, a series of regulations¹³ enacted by the Mining and Energy Ministry, recording the number of wells and the amount of groundwater abstraction also started to appear in Jakarta Dalam Angka. Those regulations stated that, bearing in mind the specific characteristics of local biophysical condition,

¹² Joint Ministerial Decree between Ministry of Internal Affairs and Ministry of Public Works No. 3 Year 1984 (26/KPTS/1984) on Procedures for Procurement Proposal of Clean Water Projects, Temporary Management, and Handover; Joint Ministerial Decree between Ministry of Internal Affairs and Ministry of Public Works No. 3 Year 1984 (28/KPTS/1984) on Accounting Guideline for Operational and Maintenance Technic, Service Technic, Structure of Cost Calculation for Determination of Drinking Water Tariff, Clean Water Management of District Capital, Public Tap Management for Public Water Company, and Drinking Water Management.

¹³ Government Regulation No. 22 Year 1982 on Water Management; Mining and Energy Minister Regulation No. 03/P/M/Pertamben/1983 on Underground Water Management.

groundwater abstraction required the governor's approval and the governor could only issue a license after the Environmental Geology Director (from the Ministry of Mining and Energy) had given binding technical advice. However, the governor could independently determine the retribution for groundwater abstraction or any other kind of license fee.

Table 4.2 Piped Water Tariff Scheme circa 1986

(Source: Jakarta Dalam Angka, 1987)

Tariff Code	Type	Tariff Code	Type
A	Household	P	Tailor
B	Government Office	Q	Private Physician
C	School/university/course	R	Lawyer/accountant/consultant office
D	Government dormitory (Asrama)	S	Bank
E	Religious building	T	Vehicle service station
F	Public hospital	U	Private hospital/clinic/lab
G	Industry/factory	V	Hydrant/ledeng umum/water tanker
H	Warehouse	W	Perumnas Depok - Kodya Bogor
I	Trading/commercial	X	Windmill/orphanage
J	Public market (Pasar Inpres)	Y	Tanjung Priok Port
K	Small Business	Z	Military
L	Hotel	1	Food, beverage and ice factory
M	Steam bath /beauty salon	2	Private clinic/lab
N	Night club /bar /casino/ discotheque	3	Water tanker
O	Barbershop		

In addition, Jakarta Dalam Angka also published the water tariff categories in the 'Public Era', which was based on an arbitrary long list of, 26+ tariff codes of economic activities (e.g. industry, night club, market), social activities (e.g. religious building, school, orphanage), and special activities (e.g. military facility, government office, Tanjung Priok port)—but then, the domestic sector was categorised under a single tariff band (see Table

4.2). This was in line with the stipulation of a regulation¹⁴ by the Ministry of Home Affairs in 1988 that served as the guideline for determination of a water tariff in which the public water companies, including PAM Jaya, were allowed to increase water tariffs every three years to cover operational expenditures and meet the inflation rate (Argo, 1999).

Finally, improvement of production capacity was being pursued throughout this decade through the construction of another large-scale water treatment plant, Serpong, outside of the Jakarta provincial boundary. It was initially planned to supply Bumi Serpong Damai, a “self-sufficient city” developed by a consortium¹⁵ of ‘New Order’ cronies (Cowherd, 2002; Kooy, 2008). The construction of the pipeline from Serpong WTP to the centralised water supply system of Jakarta, however, was only made possible in the next decade through the World Bank’s second Jabotabek Urban Development Project (JUDP II).

4.2.3 Pelita V – VI (1989 – 1999): The Beginning of Privatisation and the End of ‘New Order’ Regime

Pelita V (1989-1994) and Pelita VI (1994-1999) were marked as the period of intensified globalisation in which the ‘New Order’ government further opened the door for foreign capital and international actors under the umbrella of JUDP II that allocated a total of USD 190 million in exchange for large-scale physical infrastructures that came as part of the package with institutional reforms (PERKIM-BAPPENAS, 2008; World Bank, 1990, 1998). The physical infrastructures covered a range of aspects: transmission (construction of two water lines); production (improvement of three existing water treatment plants and the construction of two new ones); and distribution (pipe network length, number of connections, connection density). At the same time, under the auspices of PAM Jaya System Improvement Project (PJSIP), World Bank introduced a new rationale for urban water management within PAM Jaya to increase efficiency (aggressive tariff increases, reduction of staff ratios, customer census, regular and timely reporting) and improved field operations (leak detection system, area zoning, UFW reduction) which then served as the entrée for privatisation. At the end of PJSIP, the business of managing Jakarta’s piped water network was ready to be presented as the main opening for the private sector, thanks to the

¹⁴ Ministry of Home Affairs Regulation No. 690-536, June 30th 1988, on Guideline for Determination of Water Tariff for Public Water Supply Company.

¹⁵ Special roles in this consortium were given to Sudwikatmono (Suharto’s cousin) and top Chinese-Indonesian conglomerates, for instance, Sudono Salim, Ciputra, Eka Tjipta Widjaja (Cowherd, 2002).

enhanced appeal provided by the project's achievements: revised tariff structure, network expansion and a four-fold production capacity increase (World Bank, 1998).

Running parallel with the PJSIP timeline (1990-1998), a series of events led to privatisation of Jakarta's piped water supply that involved family and cronies of Suharto as well as international actors (Harsono, 2003, 2004; ICW, 2000; Lanti et al., 2008).

In 1993 Thames Water International (TWI) was the first to secure the blessing from 'New Order' government through creation of a joint-local company with Sigit Harjojudanto, Suharto's son who had zero experience in managing waterworks and who infamously received 20% shares of the company for free (Harsono, 2003). In the meantime, Lyonnaise Des Eaux¹⁶ (LDE) made an alliance with Salim¹⁷, one of Suharto's closest cronies, and sent a proposal to the Public Works minister—since Salim was reluctant to make the first move and compete with Suharto's son—to divide Jakarta's water concession in half, the eastern part for TWI and the Western part for LDE (Harsono, 2003; ICW, 2000; Lanti et al., 2008).

To create positions for private companies in Jakarta's water governance setup, the central government first issued a regulation¹⁸ in 1994 that allowed for foreign investments and subsequent creation of companies that manage public services, on the basis of at least 5% local ownership. Although, in essence, this regulation betrayed the basic constitution¹⁹ of Indonesia and regulations²⁰ that limit foreign ownership and investment (ICW, 2000). On 12 June 1995, Suharto himself summoned Radinal Mochtar, the Minister of Public Works, and gave a guidance²¹ for partnership scheme that accommodated both foreign companies that had formed two local companies, Kekar Pola Airindo²² and Garuda Dipta Semesta, with Sigit and Salim respectively, by using the Ciliwung River as a natural boundary that separates the area of concession in a more or less equal size, resulting in an Memorandum of Understanding (MoU) signed by all parties on 6 October 1995, effective for six months (Harsono, 2003, 2004; ICW, 2000; Lanti et al., 2008).

¹⁶ As a result of merger between Compagnie des Eaux and Lyonnaise des Eaux into Suez in 1997, the private water concession for Jakarta was then managed accordingly by Suez.

¹⁷ Historically, Salim and the French had been working together in the construction of Serang WTP (formerly in the area of West Java Province, now in Banten Province) via Veolia (ex Generales des Eaux), one of its subsidiaries (Lanti, 2008).

¹⁸ Government Regulation No. 20 Year 1994 on Ownerships of Shares in Companies in order to (facilitate) Foreign Investment.

¹⁹ Article 33 (IV): The land, the water, and the natural resources within shall be under the power of the State and shall be used to the greatest benefit of the people.

²⁰ Regulation No.1 1967 on Foreign Investment and Regulation No.11 Year 1979 on Amendment of Foreign Investment Regulation.

²¹ 'Guidance' was an euphemism for 'instruction' or 'dictation' during the New Order era. Ministries then often quoted "atas petunjuk Bapak Presiden" (under the guidance of the president).

²² Previously the company's name was Kekar Pola Plastindo, a plastic company (ICW, 2000).

Table 4.3 Decrees and Positions Created for the Preparation of Privatisation

Decree	Position(s) Created	Members	Functions
Ministry of Public Works Decree No. 249/KPTS/1995	Coordination Team	Directorate General of Human Settlements, Director General of General Governance and Local Autonomy, fifth Deputy of BAPPENAS, Representative of Ministry of Finance, President Director of Jatiluhur Dam Authority	Coordination on national level, directing basic policies, acting as a facilitator
Governor of Jakarta Decree No. 1327 Year 1995	Negotiation Team	Provincial Secretary Assistant on Building Administration, Head of Local Economy Bureau, Head of Provincial Legal Bureau, Directors of PAM Jaya, Head of Urban Physical Infrastructures, Head of Bina Program Bureau, Assistant Inspector on State-owned Enterprises	Evaluation of feasibility studies, drafting partnership agreement, negotiation
Negotiation Team Decree No. 015/TN/IV/1995 Negotiation Team Decree No. 077/TN/VII/1996	Task Force for Negotiation Team	Representatives from Local Economy Bureau, Legal Bureau, Ministry of Internal Affairs, Directorate General of Human Settlements, JWSSP Consultant, JICA, Purse Project	Preparing necessary materials for Negotiation Team
Negotiation Team Decree No. 155/TN/VII/1996	Legal Working Group Technical Working Group Group Financial Working Group	Appointed by Negotiation Team	Assisting the Task Force for Negotiation Team
Governor of Jakarta Decree No. 3517/1996	Negotiation Implementation Team	Provincial Secretary Assistant on Building Administration, Secretary of Directorate General of Human Settlements, two PAM Jaya Directors, one legal consultant	Inter-sectoral negotiation

Governor of Jakarta Decree No. 784 Year 1997	Partnership Committee	Preparation of Partnership Agreement between PAM Jaya and private sector
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Source: ICW, 2000

After the creation of the controversial foreign investments regulation, the direct instruction from Suharto and the MoU that stipulated the allocation of the water concession area, privatisation of Jakarta's piped water network was expected to unfold organically. However, the negotiation processes were stalled for two years, for some reasons. First, PJSIP and the negotiations for privatisation were occurring at the same time as foreign debt was rising and the political power of the 'New Order' government was fading. Attracting foreign investments was seen as a sign of government's financial and political desperation (Berger, 1997) although it was trying so hard to attract it. In order to cope with prolonged negotiation, there had to be direct and massive involvement of high-level state actors such as the governor of Jakarta, the Ministry of Public Works and the Ministry of Internal Affairs. This was being done through the stipulation of a series of decrees that translated into the creation of ad hoc organisations such as teams, task forces and working groups for each level of governance to cushion the process of sealing the deal of privatisation (see Table 4.3).

Second, the decline of political power of Suharto himself and the shrinking circle of influence, had allowed the bureaucrats who opposed the transfer of Jakarta's piped water network to foreign companies to be able to intentionally stall the negotiation process (Harsono, 2003; Lanti et al., 2008). For instance, the governor of Jakarta at that time, Soerjadi Soedirdja, an ex-military chief of Jakarta Province, opposed the plan to pay PAM Jaya in USD and the private companies had to agree to pay in IDR (Lanti et al., 2008). Moreover, PAM Jaya was being obstructive, particularly due to the behaviour of Suharto, Radinal Mochtar, Sigit Harjojudanto and Anthony Salim. They tended to side with the private companies in terms of exclusive financial management which was seen as a move to limit the accessibility of financial and technical data once the privatisation agreement was effected (Harsono, 2003; Lanti et al., 2008).

Penultimately, the premature privatisation agreement (consisting of around 600 pages full of figures, table, and calculation formulas) between PAM Jaya and Garuda Dipta Semesta and Kekarpola Airindo was signed in on 6 June 1997, witnessed by the governor of Jakarta, Anthony Salim, Radinal Mochtar, and, surprisingly, the one and only public

appearance of Sigit Harjojudanto during the many years of the privatisation process (Harsono, 2004; ICW, 2000; Lanti et al., 2008). From this moment on for the next 25 years, using PAM Jaya's human resources and physical assets, two private companies were managing Jakarta's piped water network, starting from water treatment to payment collection. The role of PAM Jaya was thus reduced to monitoring the performance of those private companies and 'providing recommendations' for tariff hikes based on the monitoring results. The water tariff was restructured into block tariffs to accommodate a cross-subsidy scheme from higher income groups to lower income groups. All revenues collected from the customers entered an escrow account from which the private companies could retrieve money without PAM Jaya's approval. The water charge, the payment to the private companies, increased automatically every six months and, should there be any delay, PAM Jaya was responsible for the shortfall.

A month after the privatisation agreement was signed, the Thai baht was devalued and it triggered further financial instability in the region (Sadli, 1998; Wade, 1998). On 22 December 1997, Moody downgraded the sovereign debt of Indonesia (along with South Korea and Thailand) below the investment grade as the Asian economic crisis was looming and Suharto had had a mild stroke in the same month (Suryadinata, 1999; Radelet & Sachs, 2000). From December 1997 to January 1998, the Indonesian rupiah received the worst hit, fell to one-sixth of its pre-crisis value with regard to US dollar (Ito, 2007). When the rupiah was sharply declining and the state budget deficit was unstoppable, Suharto took drastic measures to impress the International Monetary Fund (IMF) by tightening unhealthy businesses controlled by his cronies and slashing the state subsidy for fuel and electricity thus increasing the average price of fuel and electricity by 47% and 60% respectively (Haggard & MacIntyre, 2001; Sadli, 1998).

By April 1998, Suharto once again conducted the ritual of an engineered election and he was made president. He formed a crony cabinet in which his daughter was appointed the Social Minister and his golf partner, Bob Hasan, the Trade and Industry Minister (Suryadinata, 1999). Indeed, Suharto selected Habibie, a young and bright technocratic figure, as the vice president, but that was not enough to appease the public. By May 1998, the city was practically a war zone; violent riots and student protests—where four students were shot death—occurred in Jakarta. When the students and critics demanded reform, Suharto responded calmly that it would be done after he had finished his term of presidency which would take place five years later (Suryadinata, 1999; Lee, 2009). On 21 May 1998, after the military let the students and other protestors occupy the parliamentary building, Parliament

threatened to impeach Suharto within three days and force the resignation of fourteen of his ministers; finally, the old dictator made his last live appearance on television as the president of Indonesia and officially announced his immediate resignation.

During the intervening time, most of the high-level foreign workers of TWI and LDE fled together with a wave of expatriates and there was an exodus of Chinese residents who left the country due to paranoia of spiralling chaos (Harsono, 2003, 2004). There was no clear chain of command for Jakarta's piped water management during this time of emergency and the available chemicals to treat raw water were getting scarce (*ibid*). Jakarta was facing the peril of city-wide waterborne outbreaks of disease.

4.3 PRIVATE ERA (1998-NOW): INTRODUCTION

Soon there was sweeping euphoria over the downfall of Suharto. Most people celebrated the dramatic end of his authoritarian regime but there was a nuance of anxiety at the head office of PAM Jaya. There was no instruction from the executives of TWI and LDE and the Suharto family and his cronies—Salim and Sigit—were obviously not accountable for consultation after the fall of the former 'godfather' (Harsono, 2003, 2004). Rama Boedi, the president director of PAM Jaya at that time, approached his boss, Governor Sutiyoso, and the written instruction from the governor was "if necessary, to fully take over the operation to fill in the vacuum" (Harsono, 2004). The next day there was negotiation with Iwa Kartiwa and Fachry Thaib, the president of Garuda Dipta Semesta and Kekar Thames Airindo respectively. At the end of the day they agreed to sign a prepared draft that allowed PAM Jaya to take over the water operation (*ibid*). Soon after the executives of TWI and LDE learned about the return of PAM Jaya control, they rushed back to Jakarta and devised ways and means to retain the privatisation agreement but they had to work harder since their ultimate weapon, the connection with Suharto's family and cronies, became a boomerang in a nationwide anti-Suharto euphoria (Harsono, 2003, 2004). Governor Sutiyoso distanced himself from Suharto connections and stated clearly that the partnership agreement could only be resumed after TWI and LDE severed their ties with Salim and Sigit (Harsono, 2004; Lanti et al., 2008). In exchange for the expulsion of Suharto's remnants, TWI and LDE then had to buy the shares owned by Salim and Sigit for USD 3.5 million and USD 5.3 million respectively (Lanti et al., 2008).

While this was happening at the national level Habibie stepped in as the third president of Indonesia and, under the pressure of reformation, in his short presidency period,

the executive quickly stipulated a series of regulations for political reform, such as human rights, freedom of speech and freedom of the press. Regional autonomy regulation (Otonomi Daerah), one of the most important reforms, was regarded as “the world’s biggest experiment with democratic decentralisation” (Miller, 2013. p. 835). This regulation, together with other legislation, exerted institutional change at national level and increased the authority of local government. This, in turn, influenced the dynamics of Jakarta water governance. In the ‘Public Era’, the central government dictated the national policy for urban water development programme through GBHN under the rubric of human settlements, whereas in the ‘Private Era’ GBHN only provided a general state policy from which local governments had more flexibility to develop their own local policies (PERKIM-BAPPENAS, 2008). Similarly, concurrently with the trend of democratisation and decentralisation, the top-down Pelita approach was shelved from the framework of national planning and, in exchange, it was replaced by a 5 year National Development Program (Program Pembangunan Nasional, Propenas) from which the central government formulated a strategic plan (Rencana Strategis, Renstra) and the local government formulated a regional development programme (Program Pembangunan Daerah, Propeda) that could be modified according to local context.

4.3.1 Transitional Period (1998-2004)

This period is regarded as transitional since the central government was highly unstable. Although the governor of Jakarta was still the same person, within five years there were four amendments to the basic constitution and there were three presidents of Indonesia. The successions obviously were not smooth. It was apparent that the conflict between PAM Jaya and the private operators was still unsolved but the central government considered the conflict as a loss, since Indonesia had to maintain a positive image to attract foreign investment as a way to recover from the Asian economic crisis of 1997 (Harsono, 2003; Lanti, 2006). Accordingly, the private operators then agreed to renegotiate the contract but the process dragged on for three years due to three factors (Lanti et al., 2008. p. 61-62):

1. The excessive impact of the crisis - there was a huge devaluation of Indonesian Rupiah (from IDR 2,200 in 1997 to IDR 12,000 in 1998 to IDR 8,500 at the end of negotiation) therefore the financial calculation (profit margin, investment, risk, etc) in the original privatisation agreement was no longer valid.

2. Purchasing power was decreasing and inflation was as high as 120% - therefore it was difficult to meet the water tariff. With those gloomy financial figures PAM Jaya had to cope with the payment of the water charge that automatically increased each semester.

3. More than 90% of the employees of private operators were PAM Jaya's employees but their employment status was uncertain and the transfer of human resources was met with resistance.

The attitude of the Jakarta parliament was ambivalent during the course of contract renegotiation. To maintain popular support, they had to support the resistance of PAM Jaya's employees and at times they pushed the private operators to meet the deadline, however, at the same time they realised that the city needed the capital of private operators. For instance, Ali Imran, a member of parliament, stated that "The limit of tolerance that we give the two companies is huge, although we are not satisfied with their works. What can we do? We need their money and we don't want to send a message that might scare other investors." (Harsono, 2003).

Finally, PAM Jaya and private operators signed the first Re-stated Cooperation Agreement (RCA) on 22 October 2001. Unlike the original CA 1997, RCA 2001 gave PAM Jaya greater access to and control over the escrow account from which PAM Jaya could repay operational costs and accumulated debt. Accordingly, to show that they had completely severed the ties with Suharto family and their cronies, the private operators restructured and rebranded their companies, from Kekar Pola Airindo and Garuda Dipta Semesta to Thames PAM Jaya (TPJ) and PAM Lyonnaise Jaya (Palyja) respectively. Another important outcome from RCA 2001 was the creation of the Jakarta Water Supply Regulatory Board (JWSRB) as an independent organisation that monitored PAM Jaya and the private operators.

In this transitional period, from 1998 to 2001 there was no tariff increase but from 2001 to 2004 the tariff was increased excessively: 35% in 2001, 40% in 2003, and 30% in 2004 (Lanti et al., 2008). Accordingly, since the water charges increased automatically for each semester, by the end of this period PAM Jaya had accumulated a shortfall debt of around IDR 800 billion although, according to RCA 2001, the water charge was reduced by 20% and PAM Jaya could repay the debt in instalments without interest (*ibid*).

4.3.2 Contemporary 'United Indonesia' Period (2004-2014)

Unlike the transitional period, the central government became considerably more stable considering the fact that in this period of unity, the presidency of Susilo Bambang

Yudhoyono (SBY), the fifth president of Indonesia, was unchallenged for two periods totalling ten years. He termed his cabinet 'United Indonesia', hence I come up with this name for this particular period. Thanks to the fourth amendment of basic constitution in 2002, the first direct election of the president and vice president of Indonesia took place in 2004. To further pursue democratic decentralisation, the direct election of local government officials, a governor, mayor and regent, was started in 2007. Jakarta had her first-ever direct gubernatorial election in the same year. Thanks to the same amendment too, GBHN was shelved from national development planning framework and, according to Regulation 25/2004, the framework was extended and reformulated into national long-term development plan (Rencana Pembangunan Jangka-Panjang Nasional, RPJPN) that spans 20 years from 2005 to 2025. The RPJPN is divided into four parts of a national mid-term development programme (Rencana Pembangunan Jangka-Menengah Nasional, RPJMN) from which the central government develops government's working plan (Rencana Kerja Pemerintah, RKP), with reference to formulating a national budget.

From 2004 to 2007, Governor Sutiyoso enacted Automatic Tariff Adjustment (Penyesuaian Tarif Otomatis, PTO) to match the automatic rise of water charge every semester, one of the clauses in CA 1997. Sutiyoso showed the same ambivalence of the Jakarta parliament since, according to him, "If the investors are losing, then it will be difficult for the government to find other investors. Looking for investors is not an easy task." (TEMPO, 2005). Indeed, as a result of this policy, for the first time the average water tariff rose above the water charge by early 2004 and accordingly reduced the debt of PAM Jaya from IDR 307 billion in 2004 to IDR 170 billion in 2007 (Kooy, 2008; Lako & Ardhianie, 2010). However, the increasing water tariff and the reduction of PAM Jaya's debt did not correspond with the performance of private operators since they were unable to meet the targets; the target for service coverage ratio was 75% but the realisation was merely 58.99% and, worse, the target for new connections was 100% but the realisation was only 32.96% (Ardhianie & Zamzami, 2010). In 2006, after approval by Governor Sutiyoso, TPJ exited the concession by selling 100% of its shares to Singapore-based Aquatico Pte. Ltd that rebranded the company into Aetra (Nurbianto, 2007). In the same year too, the central government reacted to the murky water business; the Minister of Public Works sent a letter to the governor to remind him that the average water tariff was overpriced and was even more expensive than the average water tariff of 'more developed' South East Asian cities such as Kuala Lumpur and Singapore (Lanti et al., 2008).

After Jakarta had had its first direct gubernatorial election, Fauzi Bowo, the former vice-governor for Sutiyoso, took the drastic measure of refusing to have a tariff increase for the whole period of his tenure (2007-2012). He argued that the performance of private operators was not adequately satisfactory and felt that tariff increase should only occur after the completion of the large-scale infrastructure development plan, a water treatment plan in Jatiluhur involving a reservoir and transmission lines (Wibisono, 2009). According to Fauzi, "There is no way will I raise the tariff rates if the services are still poor. This will cause inflation and will make the residents restless." (Wresti, 2011). Another achievement during Fauzi Bowo's tenure was preparing the road for a renewed contract agreement with Aetra in 2013. The revised clauses are considerably different from the RCA 2001; Aetra agreed to maintain the same tariff until 2022 and the automatically increasing water charge was eliminated (Muhammadi, 2013).

4.4 CONCLUSION

In this chapter, I have put the chronology of Jakarta's water governance in sequence to provide the background for the analysis of institutional pathologies. In the 'Public Era', central government's obsession was to pursue large-scale infrastructure projects to improve water production but less attention was paid to improving the quality of piped water services (see Table 4.4). In the 'Private Era', large-scale infrastructure projects were absent and increased attention was given to water tariffs. Nevertheless, there were no apparent impacts of democratic decentralisation to Jakarta water governance, which will be discussed further in the next chapter.

Table 4.4 Sophistication of the 'Public Era'

(Source: World Bank, 1990; Kooy, 2008)

Period	Phase	Large-scale Infrastructures	Tariff	Connections*
Pelita I & II (1969-1979)	Preparation for the creation of PAM Jaya	- 1st Master Plan (1972) - Capacity Upgrade for Pejompongan I & II by 3000 L/s - 225 km main pipe Mini WTP Cilandak 200 L/s	Flat	103,154
Pelita III & IV (1979-1989)	Introduction of increasing block tariffs and selective development	- Pulogadung WTP 1000 L/s - 6 mini WTPs 280 L/s - Capacity Upgrade for Pejompongan II by 600 L/s - Capacity Upgrade for Pulogadung by 3,000 L/s 2nd Master Plan (1985) 100 km main pipe network	Increased block Single band for domestic sector	185,205
Pelita V & VI (1989-1998)	The beginning of pand the end of the 'New Order' regime	- Serpong WTP 3000 L/s - Buaran I & II ETP 5000 L/s - Rehabilitation for Pejompongan I & II, Pulogadung - 24 km transmission line from Serpong WTP - 11 km transmission line from West Tarum canal	Increased block Multiple bands for domestic sector	487,978

*The number of piped water connections at the last year of each period.

CHAPTER FIVE - INSTITUTIONAL PATHOLOGIES AND URBAN WATER ACCESS IN JAKARTA

5.1 INTRODUCTION

In this chapter, I examine the relationships between institutional pathologies and water access in Jakarta. In this context, access to water refers to ease of accessibility to water sources in terms of distance and time, amount of water, water quality and affordability. It is postulated that institutional pathologies influence access to water sources. As discussed in **Chapter 3**, institutions are rules and values recursively reproduced by regularised human actions. These can be expressed in the form of formal law and regulation and as informal rules or norms that structure water governance and affect the outcomes. Institutional pathologies imply persistent institutional deviants from a 'healthy' governance condition that are shared by multiple actors—state/non-state and national/international.

In the following sections, I draw on examples of institutional pathologies and water access in Jakarta (summarised in Table 5.1). This case study (see **Chapter 4**) shows that, although privatisation of Jakarta's water supply system has been in place since 1997, three institutional pathologies are persistently present in its water governance, and access to reliable drinking water sources has been decreasing consistently. The first institutional pathology, patrimonialism refers to the pattern of bureaucracy that is heavily centred on central government and central figure(s). Confidentiality, the second institutional pathology, denotes the style of bureaucracy that tends to maintain secrecy of public information in the name of national stability and security. The third pathology, informality, is a double-edged vernacular mode of negotiation; it can be used for the clandestine operation of rent-seeking and it can be the locus to harness collective action. The institutional changes to redress institutional pathologies only occurred recently and the story of Jakarta's water governance is still unfolding.

Therefore, in the following chapter sections, I present institutional pathologies in the 'Public Era' and the 'Private Era' and discuss their implications for water access. First, I discuss each institutional pathology—patrimonialism, confidentiality and informality—in the 'Public Era'. After that, I relate the impact of institutional pathologies to the pattern of water access. Subsequently, I highlight each institutional pathology in the 'Private Era' compared to the 'Public Era'. Finally, I explain the impact of institutional pathologies that has led to the decrease in access to reliable drinking water sources in the contemporary 'Private Era'.

Table 5.1 Summary of Institutional Pathologies in Public and ‘Private Era’ (source: Author)

Pathology	‘Public Era’	‘Private Era’
<i>Patrimonialism</i>	- PAM Jaya was a low ranking organisation that inevitably had to follow dictates from the central government regarding priorities for water development, that preferred a small number of large projects (WTP, water line) rather than a large number of small projects (in-house connections, hydrants)	- The central state actor during the ‘Public Era’, Suharto, was replaced by high-level national actors who allowed direct and confidential negotiation with international actors that were managing Jakarta’s piped water networks
	- Although PAM Jaya monopolised the urban water supply of Jakarta, the organisation was caught in between a clientelistic relationship of higher level state actors and non-state actors (international agencies and business leaders)	- The creation of a new regulatory position in Jakarta’s water governance, Jakarta Water Supply Regulatory Body (JWSRB), had not been able to break the patrimonialism and reversed the decreased water access for poor households as the position could not come together due to insufficient authority
	- Inferiority of PAM Jaya in rule-creation and decision making; regulations made by PAM Jaya could simply be bypassed by higher authorities	- Bottled water and refill water players—who were in cold war—utilised the persistence of patrimonialism to secure their own position and acquired support from state authorities therefore easing their own businesses and increasing the consumption of bottled water and refill water
	- Thanks to the domination of central government led by Suharto, there were more positions for international and national actors who had a higher level of authority due to social or business ties with Suharto and his family and his cronies	- Direct voting for regional government, one of the most crucial democratisation and decentralisation policies, had not been able to break the patrimonial character of Jakarta bureaucracy in general and Jakarta water governance in particular
	- Those actors could then influence the prioritisation of water development and/or be directly involved in large-scale projects	- Challenge to patrimonialism: the plan of the latest governor of Jakarta to remunicipalise Palyja
<i>Confidentiality</i>	- Disclosure of public information had been very limited by the central government and confidentiality was experienced at all levels of Jakarta’s water governance	- Albeit slow, there were simultaneous changes in information rules towards transparency, initiated by the central government, local government and civil society
	- Primary information collected in the field by PAM Jaya was made public without the consent of higher authorities	- Civil society: NGOs were drafting the Freedom of Information (FOI) law; increased monitoring and information dissemination by both local or international NGOs; adjudication to open confidential privatisation clauses; critical review of Cooperation Agreement and an ongoing judicial review to revoke the privatisation of Jakarta water supply system

	<ul style="list-style-type: none"> - Official publications never disclosed crucial information such as customer rights, network expansion plans, service compliance levels, detailed cost structure for tariff setting, and shareholding 	<ul style="list-style-type: none"> - Central government: The Freedom of Information (FOI) clause in the 2nd Amendment of Basic Constitution, stipulation of FOI law in 2008, the creation of a Commission of Information (which provides adjudication for public information)
	<ul style="list-style-type: none"> - Detailed information regarding the operation of supposedly pro-poor infrastructures (i.e. hydrants and water terminals) was circulated mainly in the small circle of state actors and non-state actors 	<ul style="list-style-type: none"> - Local government: recent use of social media that allowed for direct observation of the behaviour of public officials and accordingly increased information that came directly from legitimate sources
<i>Informality</i>	<ul style="list-style-type: none"> - Internal and external rent-seeking patterns that produced technical and administrative leakage 	<ul style="list-style-type: none"> - Private operators changed the previously corrupt tender processes and tightened the compliance to procurement rules
	<ul style="list-style-type: none"> - Clandestine operation: tender processes by higher level management and illicit arrangements with street-level officials 	<ul style="list-style-type: none"> - Meter readers (one of the street officials) were subcontracted to a third party to reduce illicit arrangements
	<ul style="list-style-type: none"> - Vocabularies of informal language as a vernacular mode of transaction 	<ul style="list-style-type: none"> - Gradual closure of hydrants and the reduction informal water vendors
	<ul style="list-style-type: none"> - Informal water vendors had a patron-client relationship 	<ul style="list-style-type: none"> - Persistent involvement of middlemen who had a larger informal network and could influence the water companies
	<ul style="list-style-type: none"> - Hydrant owners were appointed and normally held important positions in the community (neighbourhood leader, police, etc) 	<ul style="list-style-type: none"> - Mushrooming refill water depots, although most of the depots are unlicensed
<i>Access</i>	<ul style="list-style-type: none"> - Higher priority was given for production, rather than distribution, although over time, taking population growth into account and the improvement of production capacity, technically the piped water system had been able to provide access for 20-35% more of the population 	<ul style="list-style-type: none"> - The number of households who had access to reliable drinking water sources had been decreasing consistently since the early 2000s. In 2002, 63% of Jakarta's residents access to reliable drinking water sources but that figure fell to 23% in 2012 due to the dramatic increase of bottled water and refill water consumption
	<ul style="list-style-type: none"> - More attention paid to conditional factors (tariff), rather than pre-conditional factors (e.g. initial connection fee and security of tenure) that constrained access to piped water for poor households 	<ul style="list-style-type: none"> - Water tariffs had never been raised since 2007 and a recent plan is in place to eliminate initial the connection fee
	<ul style="list-style-type: none"> - Ignorance of the latent growth of bottled water and refill water industries that were able to offer directly potable drinking water 	<ul style="list-style-type: none"> - Dramatic increase in the number of households that consume bottled water and refill water, the most expensive drinking water sources, surpassing both piped water and groundwater

	- As a result of the lack of transparency, customers of piped water were vulnerable to distortion of information by water utility staff or local government officials, thus contributing to the constraints of access to piped water, particularly for poor households	- Decreasing numbers of households that use 'pro-poor' infrastructures, e.g. hydrants and water terminals, as the main source of drinking water
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5.2 'PUBLIC' ERA (1977 – 1997)

In this era, Indonesia was under the 'New Order' regime and PAM Jaya was the only organisation that managed the piped water supply in Jakarta. Although the central government was attracted to foreign funding, the central government led by Suharto only began to formally incorporate foreign private sector participation in Jakarta's water governance towards the end of his rule. Nevertheless, within 20 years of the 'Public Era', the control of the piped water supply system by a public water company did not necessarily imply better urban water access.

5.2.1 Patrimonialism

The purpose of this section is to discuss the first institutional pathology, patrimonialism, in Jakarta water governance, which involved multiple actors who each had a superior position and authority when compared to PAM Jaya, and were therefore able to influence the pattern of access to water (Table 5.1). Patrimonialism during the 'Public Era' in Indonesia has been studied by some scholars and can be distilled as follows: organisational practices of the personal rulership of Suharto as the highest patron who commanded the country through highly centralised governance and systematic clientelism through which any actor, state/non-state, national/international, had to directly pass through, under the scrutiny of Suharto himself in order to secure their interests (Roth, 1968; Crouch, 1979; Theobald, 1982; Liddle, 1991; Resosudarmo & Kuncoro, 2006; Ufen, 2008).

A more practical explanation of Suharto's patrimonialism is evident in a document about Lee Kuan Yew, the paramount leader of Singapore, as follow:

"As the president of Indonesia, he was the mega-sultan of a mega-country. He did not feel any embarrassment at giving them (his family and his cronies) these privileges because it was his right as a mega-sultan." (Yew, 2000. p. 304).

Before privatisation, it was assumed that PAM Jaya maintained its position as the single public water company that virtually monopolised the management of piped water networks in Jakarta. However, patrimonialism under the 'New Order' regime had rendered the position of PAM Jaya into a low rank organisation that inevitably had to follow dictation from the central government regarding priorities for water development, which, in turn, perpetually influenced the pattern of access to piped water (Argo, 1999). Worse still, PAM Jaya was a *kuli*²³ who was caught between the clientelistic relationship of higher level state actors and non-state actors (international agencies and business leaders) which was institutionalised in form of informal arrangements for "growth coalitions" (MacIntyre, 2000). The inferiority of PAM Jaya in the creation of rules and decision making was exemplified by the annulment of the decree issued by PAM Jaya's director in 1990 that legalised the practice of water reselling by the Government Regulation No. 11 Year 1993 that illegalised the efficient practice of water provision (Lukito, 1994; Susantono, 2001).

Instead, patrimonialism in Jakarta water governance had created more positions for international and national actors who had more authority due to social or business ties with Suharto and his family and his cronies. Those actors could then influence the prioritisation of water development and/or be directly involved in large-scale projects (see Table 4.4). On the one hand, there was a persistent presence of international state and non-state actors (e.g. French government, Japanese government, World Bank) that provided loans, aid and technical assistance for all large-scale water development projects. All these had to pass through the scrutiny of Suharto first as he had the authority to distribute authority to his family and/or cronies (Harsono, 2004; Kooy, 2008).

On the other hand, there were national non-state actors, mainly Suharto cronies, who controlled real estate businesses and were able to direct the expansion of piped water networks to their own real estate interests which would increase the value of the properties (Cowherd, 2002). The path of those actors then conjoined at the end of the 'Public Era' when international and national actors were working for privatisation of Jakarta's piped water network at the penultimate phase (Kooy, 2014) which resulted in the 1997 partnership agreement that split the area of Jakarta's piped water management into two patrimonial

²³ While 'coolie' is known, particularly in South Africa, as a derogatory word which connotes unskilled Asian labourer, 'kuli' in Bahasa Indonesia is mostly not considered an offensive word although it still retains its original meaning as manual labourer. Idiomatic uses for the word 'kuli', for example, are 'kuli tinta' (ink labour) which practically means 'journalist', 'kuli proyek' (project labour) which refers to 'construction worker', and 'kuli minyak' (oil labour) for 'petroleum engineer'. Arguably, 'coolie' and 'kuli' reflect similar turn with 'Moslem' and 'Muslim'.

companies formed by two global water barons who had an alliance with his son and his cronies (Harsono, 2003, 2004; ICW, 2000; Lanti, 2006; Lanti et al., 2008).

An excerpt from an investigative journalism document by Harsono (2004) sheds a light in this matter:

“On June 12, 1995, President Suharto brought up the issue of the privatization with Radinal Moochtar (Public Works Minister). Suharto instructed Moochtar to set up a team to prepare the privatization and to include private investors. Suharto **explicitly** told Moochtar to contact his son, Sigit Harjojudanto’s PT Kekarpola Airindo as well as Salim Group with their respective international partners, Thames Water and Lyonnaise des Eaux.”

In sum, I have shown that patrimonialism in Jakarta’s water governance had structured relationships between the multiple actors and it influenced decision-making processes during the ‘Public Era’. This institutional pathology significantly reduced the role of PAM Jaya in Jakarta’s water governance and instead provided more positions and authority for other actors that had secured social or business ties with Suharto. The influence of patrimonialism on the pattern of access to piped water will be discussed further in **Section 5.3.4**.

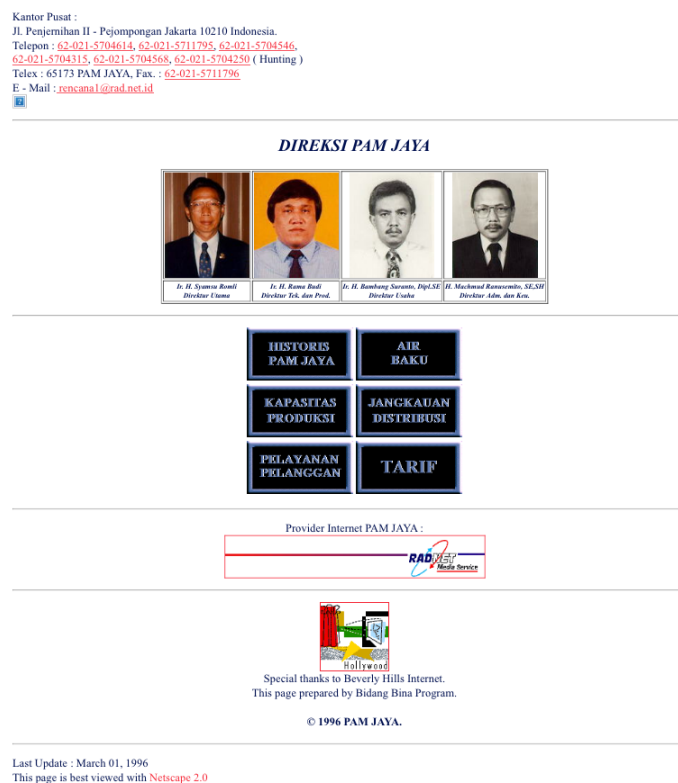
5.2.2 Confidentiality

In this section, I discuss the second institutional pathology, confidentiality, in which the state tightly controlled the flow of information in the ‘Public Era’ (see Table 5.1). Nevertheless, considering the development of information technology during the ‘Public Era’, confidentiality of information was ‘normalised’ since all public information came directly from state apparatus or state-controlled media (television, radio, and newspapers) that had been filtered by the Department of Information (Kamil, 2006; Lim, 2004; Menayang, Nugroho, & Listiurini, 2002; Romano, 1996). The virtuous purpose of confidentiality was to preserve national stability and security but in reality actors who had more information exploited the opportunity of rent-seeking from the gap of information and the lack of transparency.

A review of official documents produced in this period suggests that the source of confidentiality was the State itself. Being haunted by the paranoia of the 1974 Riot, the ‘New Order’ government, via the Department of Information, established information rules that allowed censorship, suspension and banning of any form of dissemination or publication if

the content threatened national stability and security (Lim, 2003, 2004; Santoso, 1997). Accordingly, the disclosure by the central government of public information had been very limited and the confidentiality was experienced at all levels of Jakarta water governance, at least in three instances. First, primary information collected from the field by PAM Jaya was never made public without the consent of higher authorities. The information was aggregated by national level organisations (for example, BAPPENAS) or provincial-level organisations (government of Jakarta) and the documents were published as part of an annual report or statistics reports (for example, Repelita Reports and Jakarta Dalam Angka). However, more specific public documents, such as annual report of PAM Jaya, had neither been made available for public consumption nor circulated freely.

Figure 5.1 PAM Jaya webpage, circa 1996,



Second, although the central government and the government of Jakarta were increasing publications related to water in those documents, the publications never disclosed crucial information such as customer rights, network expansion plans, the service compliance level, detailed cost structure for tariff setting, or shareholding (Figure 5.1). In the absence of information like this, customers of piped water had to rely on unaccountable information

conveyed by street-level officials or middlemen—neighbours or acquaintances who were connected to the larger political and socio-economic network.

Third, detailed information regarding the operation of supposedly pro-poor infrastructures (i.e. hydrants and water terminals) was circulated mainly within the small circle of state actors—which included street-level officials—and non-state actors, the appointed operators of those infrastructures, and the distributing vendors (Yayasan Dian Desa, 1990; Lovei & Whittington, 1991; Argo, 1999; Susantono, 2001). Consequently, by limiting information to customers and potential competitors, these actors could maximise their net revenue through rent-seeking behaviour.

In sum, I have described how confidentiality was experienced at all levels of Jakarta water governance during the 'Public Era'. It is interesting to note that lower level actors in Jakarta water governance (e.g. hydrant owners and ambulatory water vendors) followed the same confidentiality practice as the higher level actors (e.g. BAPPENAS and the government of Jakarta). This institutional pathology constrained access to the urban poor by maintaining asymmetrical access to information and lack of transparency, which will be discussed in **Section 5.3.4.**

5.2.3 Informality

This section deals with the peculiarly defiant characteristic of Jakarta water governance: informality as a mode of negotiation (see Table 5.1). Globally Indonesia had been one of the largest informal economies, particularly in the trade sector that absorbed more than 80% of the informal workforce (Evers & Mehmet, 1994), therefore it is not surprising that preference to informality was ingrained in payoff rules. In the case of Jakarta water governance, informality facilitated institutionalisation of internal and external rent-seeking patterns. Being clandestine was the primary characteristic of informality so a set of informal vocabularies was developed from the clandestine operations.

Equipped with patrimonialism and confidentiality, Jakarta water management was operationalised informally, which facilitated institutionalised rent-seeking, both internally and externally (ICW, 2000; MacIntyre, 2000). A target of profit was not set for PAM Jaya to contribute to Jakarta's regional revenue. The fact that the company was contributing IDR 3 to 10 billion each year implied that the company had been profiteering throughout its operation. At the same time internal corruption prevailed in the area of procurement at higher level management and external corruption was exercised by lower level management

through illegal levies (Ardyanto, 2002; ICW, 2000). No wonder that efforts to improve the performance of piped water supply were futile, since those rent-seeking behaviours produced technical and administrative leakages.

On the one hand, the technical leakage came from internal corruption in the area of procurement that reduced the quality of projects delivered by contractors who circumvented the budget to accommodate payment for rents (ICW, 2000). For instance, in 1995 PAM Jaya awarded a contract to a private company to read water meters, to attend to customer registration and computerized billings that increased the monthly operation by around USD 578 million—which was fairly overpriced—but there was no reaction at all from public officials (Server, 1996). On the other hand, the administrative leakage came from external corruption that sought rents from unauthorized piped water connections, increased initial cost and negotiated payment (Ardyanto, 2002). As discussed in the previous section, asymmetrical access to information and lack of transparency contributed to technical leakage and reduced the water access, particularly for poor households.

The character of informality is clandestine. At higher level management, tender processes were informally negotiated between PAM Jaya and suppliers, hence it was labelled as 'the den of bandits' (Ardyanto, 2002; ICW, 2000). A document about corruption in Indonesia public services produced by Indonesia Corruption Watch (2000 p.145) even revealed that the main director of PAM Jaya and companies owned by Suharto's cronies were directly involved in secret operations, as follow:

“Informant B then mentioned some companies that dominated PAM Jaya procurement and had closer ties both to the directors of PAM Jaya and the national conglomerates from Chinese ethnic (Sudono Salim). He gave some samples of items which were dominated by those companies. “Such as water meter, and chemicals, like chlorine, those were their domination””

Similarly, street-level officials followed such clandestine operational ways and applied it selectively to piped water customers, deep-well owners, hydrant owners and other informal water vendors. For example, since most of the hydrant's meters were submerged and invisible, the real amount of payment made by hydrant owners was based on negotiation and agreement between the owners and street-level officials, which in some cases involved the monthly salary for the officials (Yayasan Dian Desa, 1990). Therefore the payoffs were

based more on the judgement of street-level officials and the customers had to enter an illicit arrangement in order to access the water sources.

“Combination of water meter box which was almost always under water and water meter that were broken made it difficult to record the amount of water spent by the respective HU (hydrant). In such a case, very often the recording would be based on estimation. As a result, it would either be PAM or the caretaker who would be disadvantaged. HU with many customers which of course spent a lot of water as well preferred to have a broken water meter because it gave them the opportunity to bargain with the person in charge of recording the water meter position which usually ended satisfactorily” (Yayasan Dian Desa, 1990. Ex-2).

Compounded by confidentiality of public information, word-of-mouth was the primary medium for socialisation and the actors developed vocabularies of informal language as a vernacular mode of transaction for payoff rules. The vocabularies were borrowed from a mix of different languages: Bahasa Indonesia, Indonesian slang or even Mandarin (see Table 5.2). Rather than just for its simple meanings, for social effect the informal terms were used exactly as they stood (Neufeldt, 1999). These informal terms were then useful when conducting an illicit arrangement; they served as codes for a shared understanding between limited actors and, at the same time, disguised the clandestine operation from other actors.

5.2.4 Water Access in ‘Public Era’

After discussing each institutional pathology identified in the ‘Public Era’ using documentary analysis, I now consider the impact of these pathologies on water access in Jakarta. There are at least four impacts. First, patrimonialism in Jakarta water governance enabled it to dictate what water development would be a priority and providing universal access was never an intention. Production rather than distribution was the higher priority. Over time, considering the population growth that had taken place and the improvement of production capacity, technically the piped water system had been able to provide access for 20-35% more of the population (Kooy, 2008). Rather than improving distribution networks and increasing access of piped water, the central patrimonial government dictated that the main priority for urban water development was increasing production capacity, and this was pursued through the construction of large-scale projects such as WTPs and water lines. Those large-scale projects were within the domain of ‘monopoly of authority of central government’

and assumed to be beyond the management capacity of the government of Jakarta or even PAM Jaya (Server, 1996). The city government and PAM Jaya were responsible for the construction of smaller projects, such as secondary mains and the distribution network, but they lacked both technical and financial capacity (Berry & Sierra, 1978). Since PAM Jaya did not have sufficient authority to make relevant decisions, as a company, it could not be held fully accountable for its operational efficiency (Locussol, 1997).

Second, as a result of patrimonialism and confidentiality, more attention was being paid to a conditional factor, namely the tariff, rather than pre-conditional factors such as the initial connection fee, and ensuring security of tenure that constrained poor households from having the access to piped water. In the 1980s the tariff scheme in Jakarta was revised from being a flat tariff scheme to increasing the use of a block tariff (IBT) scheme. According to a regulation enforced by the Ministry of Internal Affairs, the directors of PAM Jaya and the governor of Jakarta were responsible for the piped water tariff, and they were allowed to increase the tariff every three years to cover operational expenditure increases and to meet the inflation rate (Argo, 1999). The international actors also focused their attention on tariffs when, in 1988, it was tripled as a condition for securing a loan from World Bank and OECF under the aegis of PJSIP (World Bank, 1998). The IBT scheme allowed for a lower tariff for poor households and more volume of water, however, instead it served as a disincentive to connect more poor households since they paid less and consumed more (Whittington, 1992). Being busy tinkering with tariffs, the actors paid less attention to the pre-conditional factors that limited access to piped water to poor households whose members lived without security of tenure in slum settlements and were trapped in a vicious cycle of debt that was exacerbated by having a low and irregular income (Bakker et al., 2008). Administratively, security of tenure (in the form of proof of land tax payment) and paying initial connection fees were a pre-condition for any household applying for an individual in-house piped water connection. Such a luxury was beyond the financial capacity of poor households. In the early 1990s, it was reported that only 10% of residents in low income areas accessed piped water through individual connections (Azdan, 2001). More than 50% relied on hydrants that could be five times more expensive than the price per unit of piped water for poor households, according to the existing tariff (*ibid*).

Third, thanks to the persistence of informality and patrimonial relationships between bottled water and refill water players and state authorities, the latent growth of bottled water and refill water industries was meeting a need. They were able to provide potable drinking water directly to the consumer, a service quality that had never been fully

guaranteed by the piped water system. During the 1970s, Aqua, the leading company in bottled water industries, had developed their business and, in 1991, thirteen leading bottled water industries created the Association of Indonesian Producers of Packaged Drinking (ASPADIN) as a lobby group for the government (Hadipuro, 2010). The central government via its Department of Industry and Trading established an intimate relationship with bottle water industries through the enforcement of regulations²⁴ that standardised the technical requirements. This could disadvantage business owners who did not meet the standards and restrict the entry of new players. Then, in 1995, some entrepreneurs started an informal refill water business that offered similar packaging and potable water quality at a cheaper price (Darandono, 2003). Unlike the business model of bottled water industries that had large-scale remote factories to treat the raw water and distribute the water to resellers or directly to customers, the business model for refill water industries relied very much on decentralised small-scale depots that treated the raw water on-site (Darmawan, 2009). At the end of the 'Public Era', fewer than 3% of the households consumed bottled water and refill water. These were mainly higher income households and expatriates, since the price per unit could be more than 100 times more expensive than piped water (Hardjo, 2012; Sidharta, 2007). Little did we know that in the 'Private Era' those drinking water sources would be able to penetrate low income households and surpass the consumption of piped water, the use of hydrants and groundwater. Little did we know too, that bottled water and refill water industries would, at a later stage, follow similar pattern of patrimonial relationships found in Jakarta water governance.

Fourth, as a result of that confidentiality that maintained asymmetrical access to information, and lack of transparency, piped water customers were vulnerable to distortion of information by water utility staff and/or local government officials. This contributed to the constraints poor households particularly experienced regarding access to piped water. For instance, new customers had to pay a larger amount as an initial cost without knowing the real cost for a new installation (Ardyanto, 2002). Similarly, although, in essence, anyone could operate a hydrant or water terminal and the presence of an increasing number of infrastructures led to a reduction in the overall price per unit, limited information had effectively restricted entry into such business and the exorbitant price per unit was maintained (Lovei & Whittington, 1991). As a result of institutional pathologies during the

²⁴ SK Menteri Perindustrian No. 120/M/SK/10/1990 on Implementation of Indonesian Industrial Standard (SII) and Compulsary SII Labelling for Bottled Water. Indonesian National Standard No. 01-3553-1996 on Product Quality. Kepmerindag No 167/1997 on Technical Requirements for Bottled Water Industry and Trading.

‘Public Era’, decision making was divorced from the real costs and benefits to the majority of Jakarta residents (Cowherd, 2002).

5.3 ‘PRIVATE’ ERA (1998 - 2014)

In this era, the management of the Jakarta piped water supply system had been transferred to two private operators. At the national level, the central government even gave its blessing to water privatisation via a foreign investment law and a water resources law. But then, due to the democratic decentralisation policy, the authority and autonomy of local governments were increasing. As far as Jakarta water governance was concerned, they had the chance to counterbalance the influence of central government. Therefore, in the next sections, I will discuss the condition of institutional pathologies in the ‘Private Era’ and at the end will relate the pathologies to urban water access.

5.3.1 Persistence and Recent Change in Patrimonialism

Persistence and the recent the ‘Private Era’ (see Table 5.1) changes found in patrimonialism in Jakarta water governance had two main facets. On the one hand, patrimonialism persisted since multiple actors filled the positions of authority as central state actors. Suharto had occupied the main position during the ‘Public Era’. Consequently, the Jakarta Water Supply Regulatory Body (JWSRB), a new organisation that supposedly had more significant influence, did not have sufficient authority to regulate all actors in Jakarta water governance. On the other hand, as briefly touched on in the previous section, bottled water and refill water industries would flex their political muscles in the ‘Private Era’ to secure support from central government authorities. Moreover, there was a recent change of patrimonialism after the election of the new governor and vice-governor of Jakarta. This time they threatened to nationalise Palyja and thus had the possibility to break the patrimonial relationship particularly between national and international actors.

Although Suharto had stepped down and his family and some of his cronies had been dismantled, patrimonialism continued in the ‘Private Era’. The central state actor during the ‘Public Era’, Suharto, was replaced by high-level national actors. They allowed direct and confidential negotiation with international actors who were managing Jakarta’s piped water networks. For instance, in 2003, the ninth vice president of Indonesia, Hamzah Haz had a closed-door meeting with the British ambassador, Richard Gozney, to discuss the problems of

Thames PAM Jaya (TPJ), the private operator for the eastern part of Jakarta (Harsono, 2004). Gozney requested a tariff hike to cover continuous financial losses of the company, and both the government of Jakarta and PAM Jaya had to bow to his proposal and increased the price by 40 per cent (The Jakarta Post, 2003). Similarly, in 2011, the chief executive of GDF Suez, Gerard Mestrallet, wrote a letter to the coordinating Minister of Economic Affairs, Hatta Radjasa, regarding a 'serious problem' experienced by PAM Lyonnaise Jaya (Palyja), the private operator for the western part of Jakarta. After that, Mauritz Napitupulu, the former director of PAM Jaya who had been vocal about privatisation, was mysteriously dismissed from his position (Chandra, Aprilia, & Megarani, 2012). This matter was also included in the agenda of a meeting between the French prime minister, Francois Fillon, and the sixth president of Indonesia, Susilo Bambang Yudhoyono (SBY) in the same year (Tempo, 2011).

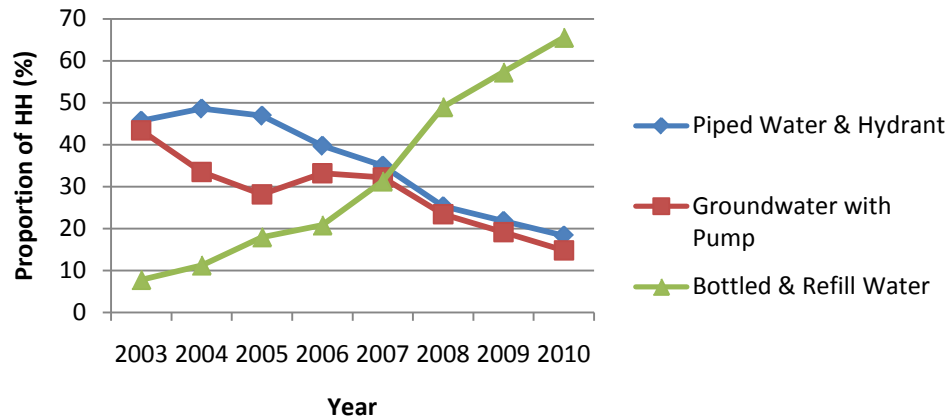
Concurrently, the creation of a new regulatory position in Jakarta water governance, JWSRB, had not been able to break the patrimonialism and reversed the decreasing access for poor households. The position of JWSRB did not come with sufficient authority, thus rendering it to becoming merely a docile watchdog that could only bark to private operators. As part of the Re-stated Cooperation Agreement (RCA) 2001, JWSRB was created for monitoring privatisation contracts, mediating disputes between multiple actors and proposing tariff adjustments (Lanti, 2006; Lanti et al., 2008). Nevertheless JWSRB had not been able to influence the connection quota for subsidised tariffs which limited access to water for poor households. Tariff stipulation remained in the hands of the governor of Jakarta and the connection quota was in the hands of private operators, who favoured wealthier customer groups who paid a non-subsidised tariff (Gerlach & Franceys, 2010).

From 2003 to 2012, the percentage of subsidised customer groups (poor and low income households) had been decreasing from 58.20% to 54.14% respectively while the percentage of non-subsidised customer groups (higher income households and commercials) had been increasing from 37.5% to 44.93% respectively (Bakker et al., 2006; PAM Jaya, 2012). Moreover, it is suspected that those who were connected may not have been the poor households themselves but landlords who had been leasing accommodation in slum settlements, since the average water consumption of the poorest households was considerably higher (26 cubic meter per month) than the water consumption of the low and middle income households (Pemprov DKI, 2013). Similarly, there was an increasing number of zero consumers—those who are legally and technically connected but did not use the piped water—from 14.28% (110 000 customers) in 2006 to 16.25% (129 000 customers) in 2012 (Lanti et al., 2008; PAM Jaya, 2012).

Figure 5.2 Proportion of Jakarta Households according to Main Source of Drinking Water

from 2003 to 2010

(source: BALITBANGKES, 2004-2011)



In the meantime, bottled water and refill water players—who were in cold war—utilised the persistence of patrimonialism to secure their position and acquire support from state authorities. This eased their business and there was an increase in the consumption of bottled water and refill water. In 2002, some refill water industries created the Indonesian Association of Refill Water Supplier, Distributor, and Depot (APDAMINDO) and lobbied the Ministry of Industry and Trade but, considering the typology of the business, they were advised to continue their operation in *warungan* or in informal manner (Darmawan, 2013). They received support from the Ministry of Health that enforced a regulation²⁵ on drinking water quality monitoring, which covered piped water, bottled water and refill water. Being threatened by the growth of refill water industries that has grown to more than 1 600 depots in Jakarta and its conurbation, in 2003 ASPINDO, prepared a draft for a ministerial decree²⁶ to be issued by the Ministry of Industry and Trade which was supposed to curtail the growth of refill water industries (Darandono, 2003; Hadipuro, 2010). APDAMINDO then attempted to file for a judicial review and in 2004 the Ministry of Industry and Trade issued a specific regulation on technical requirements for refill water depot to “meet the standard of drinking water quality, support the creation of fair competition, and provide consumer protection” (Anastasya, 2003). After that, the percentage of Jakarta households who consumed bottled water and refill water increased steadily and in 2012 65.5% of Jakarta households sourced

²⁵ Keputusan Menteri Kesehatan No. 907/MENKES/SK/VII/2002 on Requirements and Monitoring for Drinking Water Quality.

²⁶ Ministry of Industry and Trade Decree No. 705/MPP/Kep/11/2003.

their drinking water from bottle water and refill water, which implied that poor households were also part of consumer use (see Figure 5.3).

Direct voting for regional government²⁷, one of the most crucial democratisation and decentralisation policies, had not been able to break the patrimonial character of Jakarta bureaucracy in general and Jakarta water governance in particular, at least until recently, since the winner had to secure support from the (coalition of) status-quo (political parties). Jakarta had her first-ever direct gubernatorial election in 2007 and the winner, Fauzi Bowo, received support from the coalition of 19 political parties (The Jakarta Post, 2007). During his administration, he stalled the automatic tariff hike enacted by his previous direct supervisor. However, the initial connection fees for poorest households remained high, ranging from IDR 627,500 to 2,552,500 (Zakaria, 2009).

The challenge for patrimonialism only came recently in the 'Private Era'. The last Jakarta gubernatorial election in 2012 was a fierce contest between Fauzi Bowo, this time supported by eight parties, versus Joko Widodo (Jokowi), the ex-mayor of Solo city who was nominated by the Indonesian Democratic Party of Struggle (PDIP), one of the largest and oldest parties that has never been part of the national executive for almost a decade (Tempo, 2013). Jokowi and his pair, Basuki Tjahaja Purnama (Ahok), won the contest and when journalists asked him about the remunicipalisation of Jakarta's piped water supply system, he responded with this statement:

"I am not playing around with such thing. It is principle. I am not playing around. Do you think drinking water is a joke? No, it is principle. (We firstly plan to take over Palyja) therefore we have more freedom to manage, therefore the water is truly for people, for society. The orientation is not (only) about profit, profit, profit, profit, profit, profit, and profit. That's it." (Jokowi, 2013)

While Aetra inked the 'rebalancing' agreement to level the playing fields with PAM Jaya in 2012, Palyja delayed the settlement of similar agreement since Suez was planning to sell its 51 per cent stake to Manila Water as an exit strategy from the muddy conduct of Jakarta water governance (The Jakarta Post, 2012). On March 2013, there was a bogus press release that stated positive comments from state and non-state actors regarding the performance and experience of Manila Water, and, most importantly, the penultimate approval from the government of Jakarta about the transfer of Palyja's share (Mega &

²⁷ Refers to UU No. 32/2004 Tentang Pemerintah Daerah (Regional Government), UU No. 22/2007 Tentang Penyelenggaraan Pemilihan Umum (General Election), and UU No. 15/2011 Tentang Penyelenggaraan Pemilihan Umum.

Jacobson, 2013). By April 2013, Ahok, the new vice governor of Jakarta was getting irritated with the protraction of Palyja's rebalancing agreement and the obfuscation of the plan to transfer its shares to Manila Water, he gave Suez three options: (i) transfer the shares to PT Jakarta Propertindo (JakPro), a state-owned enterprise, after which it would become one of Palyja's stakeholders, (ii) follow the procedure of dispute settlement according to RCA 2001 by resolving this matter in the Singapore Arbitration Board, and (iii) nationalise all Palyja assets (beritajakarta.com, 2013). Suez then chose the first option and the process of Palyja's remunicipalisation became an ongoing process. It is expected that, by 2014, the government of Jakarta will complete the transfer of Palyja's share from Suez to PT JakPro. By 2014, Indonesia will also have had the general election for members of parliament and a president. The possibility to further corrode patrimonialism in Jakarta water governance is still wide open. There is pessimism though; considering the patron-client relationships between the governor and the parties that supported the candidacy²⁸.

5.3.2 Recent Change of Information Flows: Dismantling Confidentiality

The purpose of this section is to discuss the recent movement to dismantle confidentiality of public information, which was started at national level, and later on influenced the information flows in Jakarta water governance in the 'Private Era' (see Table 5.1). Civil society, represented by a coalition of NGOs, tested the extent of transparency of public information by requesting the original privatisation agreement, inked in 1997, which had been confidential. Although the acts of the JWSRB have been limited by the persistence of patrimonialism, the organisation has been actively informing the public by uploading documents onto their official websites. The observable last change in information flows clearly is the development of social media which allows the public to see partial decision-making processes and can interact within that platform.

Albeit slow, there were simultaneous changes in information flows to dismantle confidentiality, initiated by central government, local government and civil society. Shortly after the fall of Suharto in 1998, the new government enforced a series of regulations²⁹ that guaranteed human rights, freedom of public opinion and freedom of the press, which

²⁸ By the time this dissertation was finalised, Jokowi, the Governor of Jakarta, had won the Presidential Election and officially began his term from 20 October 2014.

²⁹ Refers to UU No. 9/1998 Tentang Kemerdekaan Menyampaikan Pendapat di Muka Umum (Freedom of Public Opinion), UU No. 39/1999 Tentang Hak Asasi Manusia (Human Rights), and UU No. 40/1999 Tentang Media.

provided the basis for the changes in information flows. In 2000, the People's Consultative Assembly, the highest legislative branch, made the Second Amendment of Basic Constitution in which Article 28 F states that 'Everybody has the right to communicate and the right to acquire information to develop his/her personal and social environment, and has the right to seek, acquire, store, process, and transmit the information using all available channels'.

Nevertheless the Freedom of Information (FOI) clause in the 2nd Amendment of Basic Constitution was not enough to be rules-in-use since constitutional clauses require legal statutes to intermediate the enforcement (Ackerman & Sandoval-Ballesteros, 2006). In 2002, a coalition of NGOs, Coalition of Freedom of Information, took the initiative to prepare the draft of FOI law and submitted it to the House of Representatives, a legislative branch, but the internal debate within the parliament dragged the enunciation of the law till 2008, when the Public Information Law was passed (Kamil, 2006; Viva News, 2008). After that, in 2009, the House of Representatives inaugurated the creation of the Central Commission of Information.

In 2012, KRuHA, a local NGO, went through the adjudication process and requested information on the original Cooperation Agreement (CA) that was signed at the end the 'Public Era' as well as the financial projections of each private operator that had been categorised as confidential information (Jacobson, 2012; Komisi Informasi Pusat, 2012; www.hukumonline.com, 2009). Following the adjudication, the Commission then instructed the water companies to provide information, albeit partial, as follows: (i) CA between PAM Jaya and Aetra including the amendment, (ii) CA between PAM Jaya and Palyja excluding the amendment, (iii) official state audit report of Aetra including the financial projection, and (iv) official state audit report of Aetra excluding the financial projection (Komisi Informasi Pusat, 2012).

At local government level, JWSRB had been influential in improving access to information regarding Jakarta water governance and dispelling the authoritarian aura of privatisation, thanks to the advent of information technology. The CA contained a clause that mandated the parties involved in the agreement 'to maintain all commercial and technical information' except insofar as approved by both of the parties. However, JWSRB had always been a grey area since as the organisation did not sign the CA 1997 and the creation of the organisation was, in fact, the result of the RCA 2001 (Komisi Informasi Pusat, 2012). Concurrent with the progress of information technology, JWSRB had been actively and regularly uploading public information onto their website www.jakartawater.org. An excerpt

from a official document published by JWSRB as '10 Years of Public-Private Partnership in Jakarta Drinking Water' modishly exemplifies the changes in information sphere:

"Privatisation was thought to be similar with 'sex', taboo to be discussed but frequently performed, and in the correct condition, proportion, and context can be something normal" (Lanti et al., 2008).

There were two remarks in the document's excerpt which were related with the efforts to dismantling confidentiality. Firstly, the word 'sex' had never been the vocabulary of an official report in the 'Public Era' which was more rigid and flowery, thanks to the courtesy of the 'New Order' bureaucracy. Secondly, the excerpt serves as a call to the public that, after the end of the former regime that executed privatisation in confidentiality, it is no longer taboo.

Another important change in information flows facilitated by the advent of information technology was the growth of social media which has enabled the public to view not only the final decisions of public officials but also the decision-making processes. Moreover, the public could respond interactively through social media³⁰. The recently elected governor and vice governor of Jakarta had been actively promoting social media that allowed the public to partially view the decision-making processes in Jakarta water governance. Field activities and public officials' meetings were uploaded almost on a daily basis to [PemprovDKI](#), a YouTube channel curated by the government of Jakarta. It can be openly accessed. Since its inception, at least, there were three clips that recorded the discussions between PAM Jaya & JWSRB, Aetra, and Serikat Pekerja Air Jakarta (Jakarta Water Workers Union) respectively. In a meeting with PAM Jaya and JWSRB, Ahok openly mentioned that "The main task of public water company is to serve the people, not for profit. If you still use the ancient way like that, we (will) dissolve it!". In the same instance, unlike his predecessors who were busy tinkering with tariffs only, he also acknowledged that the initial connection fee was one of the pre-condition factors that constrained access to piped water, particularly for poor households. PAM Jaya and JWSRB were then instructed to eliminate abolish the initial connection fee. Out of a hundred comments for the video made by the clip viewers, there was a sarcastic comment:

³⁰ To date, there are only two cities, Jakarta & Bandung, in Indonesia that regularly upload daily activities of the Governor/Mayor through their official YouTube channels.

“Why water company feels no shame, each month they recorded the meter but they know that the water is not running, they have no reaction for zero consumers, they feel no shame that their works is only about meter rental. It is better for water company to stop producing water and focus on meter rental business since it is more profitable.” (Pemprov DKI, 2013).

5.3.3 Taming Informality

The theme for this section is to discuss the efforts made by parties involved in the privatisation agreement to tame informality in Jakarta water governance (see Table 5.1). The main targets of taming informality were informal organisational practices of water companies that facilitated rent-seeking and gradual closure of hydrants. Nevertheless I discuss as well other facades of informality that persisted: the involvement of middlemen who had larger informal networks and could influence water companies, as well as the mushrooming of refill water depots, although most of the depots were unlicensed.

There were two instances that showed the efforts of the water companies to tame informality, which was considered as part of their internal bureaucratic culture. First, as part of CA 1997, private operators were obliged to restructure informal organisational practices that had facilitated institutionalised rent-seeking patterns in the ‘Public Era’. To redress internal rent-seeking from the tender process, private operators established a ‘purchase order’ as a method of procurement (ICW, 2000). With this method, private operators firstly contacted the vendors to enquire about the price and technical specifications of the goods or services and after that, based on the information they got they could select the most affordable items that definitely had adequate technical requirements. To reduce the possibility of external rent-seeking exercised by street-level officials, private operators tightened the application process for new connections; in the ‘Public Era’ the potential customers were served by district offices; but in the ‘Private Era’ potential customers only needed to contact the head office that would dispatch installation officers from branch offices (Ardyanto, 2002).

Second, PAM Jaya, together with Palyja and Aetra, conducted periodic monitoring of hydrants as well as phasing-out, through gradual closing or recatorising, the tariff structure (PAM Jaya, 2013). The legal basis for monitoring and phasing-out was the provincial Regulation DKI Jakarta No 11 Year 1993 and the instruction of the PAM Jaya director in 1995 that these were required prior to private partnership participation. The criteria to close down hydrants were availability of piped water network within a 100 metre radius, no complaints

from surrounding residents, availability of water supply, illegal connection and consumption and unclear ownership³¹ (PAM Jaya, 2013). To date, according to the same report, there were 436 hydrants in the Palyja area and 508 hydrants in Aetra area.


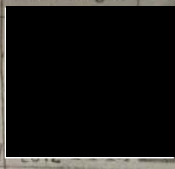
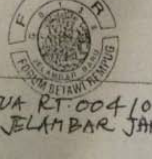
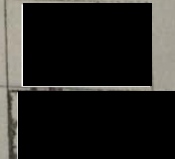
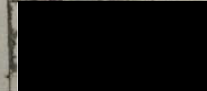
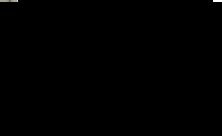
Figure 5.3 Sample of Petition by Hydrant Owners

(source: a hydrant owner in Jakarta; this letter is also attached in PAM Jaya official report)

SURAT PERNYATAAN

Pada hari ini, Senin tanggal 19 Nopember 2012 Kami yang bertanda-tangan di bawah ini adalah Para sesepuh, pemuka masyarakat dan Ormas-ormas yang berkedudukan di Kelurahan Jelambar, Jelambar Baru dan Wijaya Kusuma, dengan ini menyatakan Menolak atas usaha pihak PT PAM LYONNAISE JAYA, Jl. Bendungan Hilir Raya B 140 yang hendak menutup pelayanan Hydrant murah di Kelurahan tersebut diatas, dengan alasan karena masih ada masyarakat yang tidak mampu, Air dilingkungan kelurahan tersebut diatas asin dimana masih diperlukan air bersih, akan menciptakan pengangguran, sehingga akibatnya akan menciptakan keresahan didalam masyarakat.

Demikianlah pernyataan ini kami buat dengan sadar tanpa ada pengaruh atau tekanan dari pihak manapun juga.

No.	Nama	Alamat	Tanda-tangan
01	MISAN JALANI (KETUA)		
02	TUSUB (KETUA)		
03	JSEPARSUMIJARTO	KETUA RT 004/04 KEL. JELAMBAR JAKBAR	
04	A. FATA BAHARAT Ketua RW 04	Jelambar Baru KEL.	

The hydrant owners obviously resisted the phasing-out and initiated temporary coalitions to increase their visibility in Jakarta water governance (see Figure 5.3). It culminated in 2012 where two groups of hydrant owners hired two separate lawyers. One opinion letter was published in a national newspaper. Before that, there were letters from hydrant owners to Palyja and Aetra, voicing their discontent. Those letters were in numerous

³¹ Indeed, the ownership of public hydrant is considered as a liquid asset that can be transferred or sold. Similarly each ambulatory water vendor has a turf that can be transferred or sold.

formats – typed using a computer, typewriter or even handwritten; written in different levels of language formality (formal, semi-formal, and informal). Accompanying sets of attachments were a petition signed by hydrant owners and mass organisations—that were generally considered as paramilitary organisation—and a list of regular vendors, consumers of informal water. From the point of view of hydrant owners, the rationalities to retain the existence of public hydrants were, first, the poor quality of groundwater, especially in the northern area of Jakarta; second, there were low income households (including those who had small enterprises) who did not have access to piped water therefore unable to utilise the groundwater for drinking and cooking; and third, the livelihoods of the ambulatory water vendors who sourced their water from the public hydrants.

Said sadly, hydrants had no future in the development of Jakarta water infrastructure since the last plan to install 2 800 hydrants through the PAM Jaya System Improvement Project (1990-1998) was permanently and formally shelved. To meet the target of UFW reduction and to maximise the profit, the permit for new hydrants was ceased to be issued and the gradual closure of hydrants was seen as necessary. In practice, the monthly water charge paid by hydrant owners to the piped water companies was informally negotiated. It was apparent that in the tariff scheme the hydrant tariff was flat and the lowest, therefore deemed to be unprofitable in the eyes of the companies. Interestingly, other than reducing the number of hydrants from time to time, the gradual closure of hydrants also served as an opportunity for PAM Jaya, Palyja and Aetra to exercise collaboration and collective action as reflected in an unwritten agreement from those companies to build a master meter³² scheme to provide in-house piped connections to illegal areas. Thus it could be acknowledged that the sources of UFW from illegal connections were evident.

Currently, there were persistent facades of informality in Jakarta water governance. First, the involvement of middlemen was always present in informal negotiations to obtain and maintain a piped water connection. Formally, the first response when there was a water connection problem was to call the water company and submit the complaint, albeit this could be a lengthy, arduous and even unsuccessful route to follow. However, other residents who were able to tap into their informal network could be more successful than those who responded formally. An irony, for instance, is that a resident who was socio-politically well-

³² Communal master meter is adapted from a similar project in Manila and later on Mercy Corps, an NGO, introduced the scheme as a pilot project in a slum settlement of Jakarta in Palyja's area. After that, Aetra replicated the project and constructed around 20 master meters although most of the meters are individually owned and only one was managed by a community based organization.

connected³³ could ask for assistance from a water company employee who lived in the same neighbourhood to make sure that their problem was solved, while her neighbours who were not in such a position, were unable to solve their problems and were disconnected from the network because, unlike the former, they were not influential people. In other words, rather than the formal rules for grievances, the guarantee for the durability of a piped water connection came from the informal network where the socio-economic and political position of the residents, and their relationship with multiple state and non-state actors, were the main factors that primarily counted. For instance, as an exchange for the households' interaction with successful middlemen, who cooperated with officials of the water companies, a 'gift' might be given in the form of a tariff reclassification, for example, from Group III (middle class household) to Group II (under middle class) household, so that they paid considerably less in perpetuity. Apparently, the informal network could offer more than the normal guarantee for the continuation of a quality piped water service; it could even offer a permanent discount as a gift.

Second, thanks to the ignorance about the growing demand for bottled and refill water in the 'Public Era', there was a mushrooming of refill water depots although most of the depots were unlicensed (www.hukumonline.com, 2013). APDAMINDO, the refill water business association, had been lobbying state actors who had interests in the business of refill water. At the outset, APDAMINDO had approached the Ministry of Industry and Trade and asked for a licensing regulation but it suggested continuing the business of refill water on a small-scale and informal manner: *warungan*, or selling in the form of small kiosks with no license (Darmawan, 2013). The Ministry of Industry and Trade did not expect that the business would reach such a high economic level and might compete with the bottled water industries. When the business of refill water was booming, ASPINDO, the association of bottled water industries, criticised the Ministry of Industry and Trade for allowing such informal trading to thrive without control. As a response, in 2004, the Ministry of Industry and Trade instituted a regulation³⁴ for technical requirements for a depot (that further sharpened the differences between bottled water and refill water per se). This was in conjunction with the governor's instruction³⁵ about having a compulsory health certification for the depots (Hadipuro, 2010). Although the state actors had issued regulations that depots

³³ The influential residents often hold multiple strategic positions at the same time, such as a community representative for NGO's projects, a treasurer for micro-credit association or cooperative, and a pious leader for a religious women organisation.

³⁴ Keputusan Bersama Menteri Perindustrian dan Perdagangan No.651/651/MPP/KEP/10/2004 Tahun 2004 tentang Persyaratan Teknis Depot Air Minum dan Perdagangannya.

³⁵ SK Gubernur No.13 Tahun 2004 tentang Kewajiban Memiliki Sertifikat Laik Sehat Bagi Usaha Depo Air Minum (DAM) di Provinsi DKI Jakarta.

required a business license and a health certificate in order to operate, in reality most of the depots were unlicensed—out of more than 3 000 depots in Jakarta, the estimate for licensed depots that supplied acceptable quality was only 20-30% (Darmawan, 2013).

Table 5.2 Comparison of Cost for Each Water Source (source: Author)

Water source (from most to least expensive)	Cost price	Per unit cost price (IDR/m3)	Extra costs
Bottled water	IDR 12000 per 19L	631,579	The gallons
Refill water	IDR 4000 per 19L	210,526	The gallons
Public hydrant - transport done by ambulatory water vendors	IDR 1500-2500 per 20L	37,500-62,500	Jerry cans and water storage tank
Tanker	IDR 300,000 per 8000 L	37,500	Large tank to accommodate more than 8000 L
Public hydrant - transport of water done by household	IDR 500 per 20L	25,000	Jerry cans and water storage tank
Piped water - house connection for poor household	IDR 3,550 per m3 for 1-10m3	3,550	
Piped water - house connection for very poor household	IDR 1,050 per m3 for 1-10m3	1,050	
Groundwater - with a mini-treatment plant	additional monthly electricity charge		IDR 3 million for the construction, IDR 200,000 per 3 months for maintenance
Groundwater - shallow well, cheap pump	additional monthly electricity charge		IDR 1 million for the construction, IDR 150,000 for the pump

Albeit there was a concern about the quality of refill water, considering the competitive price of bottled water, the market share of refill water was increasing and there was a possibility that, in the future, it would be on par, or eclipse, the market share of bottled water (see Table 5.3). On a national scale, the recent estimate of the market share of refill water is 35% or roughly 1:2 to the bottled water (Darmawan, 2013). At the urban scale, the market share estimate for Jakarta was higher, around 40% for refill water and 60% for the bottled water (ibid). However, no matter how far the competition between refill water and the bottled water went, both had the same fate: they were not recognised as improved water sources that contributed to the statistics of MDGs which, in turn, would influence the achievement of universal quality drinking water access in the future.

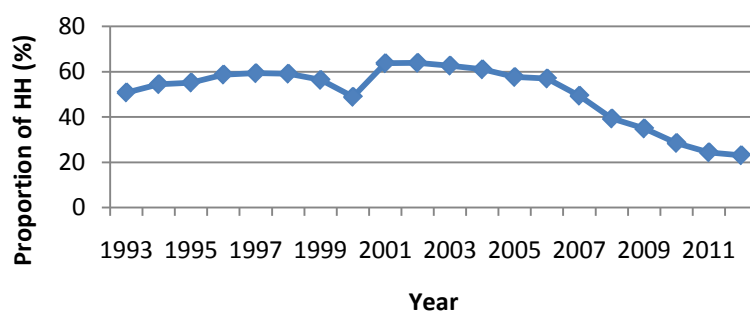
5.3.4 Water Access in the ‘Private Era’

It was difficult to firmly claim that access to water in Jakarta in ‘Private Era’ was better than in ‘Public Era’ since the number of households who had access to reliable drinking water sources had been decreasing consistently since early 2000s. The number of piped

water connections and the service coverage have been increasing continuously, from 460 000 connections with 42% service coverage ratio in 1997 to 770 000 connections to 61% service coverage ratio in 2012 (PAM Jaya, 2012; Tutuko, 2001). However, in 2002, there were 63% of Jakarta residents who had access to reliable drinking water sources but that figure fell to 23% in 2012 due the increasing consumption of bottled water and refill water (Figure 5.4). Reliable water sources refers to criteria adapted from WHO & UNICEF JMP as follows; including piped water, public taps, rain water and protected groundwater located more than 10 metres away from a septic tank or other form of sanitation facilities, and bottled water and refill water are not considered as reliable drinking water sources (see Hardjo, 2012).

The decreasing access to reliable drinking water sources ran parallel to two other trends. First, in line with the efforts to tame informality, there was a decreasing number of households who relied on ‘pro-poor’ infrastructures, e.g. hydrants and water terminals, as the main source of drinking water. It was estimated that in 1993 around 23% of Jakarta residents sourced their drinking water from those infrastructures—these were partly distributed by ambulatory water vendors—but that figure dropped to 2.5% in 2010 (Cestti, Bhatia, & Van der Berg, 1994; BALITBANGKES, 2010). This was related to the fact that, based on Jakarta Dalam Angka data, although the number of hydrant customers had been increasing from around 1 000 customers in 1988 to 2 300 customers in 2007, the volume of water sold by hydrants had been decreasing since early 1990s. Therefore, considering the decreasing percentage of subsidised customer groups, it can be inferred that the decreasing number of households who relied on pro-poor infrastructures did not necessarily mean that they received new connections but it was because they consumed bottled water and refill water as a substitute.

Figure 5.4 Proportion of Households with Access to Reliable Drinking Water Sources
(source: BPS, 2013)



Second, thanks to the preserved patrimonial relationship between bottled water and refill water industries and state authorities, the number of households who consumed

bottled water and refill water was increased and it was the most expensive drinking water sources. In 2003, only 7.3% of Jakarta's residents consumed bottled and refill water as the main source of drinking water but that figure jumped to 65.5% in 2010 (Figure 5.3). Although the Ministry of Trade and the Ministry of Health had issued regulations to standardise the operation of refill water depots, in reality, most of the depots operated without a business license and health certification. a sign of prevailing informality (www.hukumonline.com, 2013).

Indeed, there were some recent changes that might have treated institutional pathologies, such as the progress towards dismantling confidentiality and that the new Jakarta leadership that might corrode the patrimonial character present in Jakarta water governance. However, it was too early to tell and insufficiently reliable to clearly establish the relationship between those changes and urban water access. Moreover, at the national level, the next president of Indonesia who would be elected in 2014, would play an important role in the treatment of institutional pathologies of Jakarta water governance, since the most popular candidate was the current governor of Jakarta. Nevertheless, I provide some policy recommendations based on those recent changes in the policy recommendation section in the next chapter.

5.4 CONCLUSION

Undoubtedly, the 'Public Era' has handed down tremendous legacies to the next era. As a matter of fact, privatisation itself is, in reality, the brainchild of the 'Public Era' and was constitutionally binding. In the 'Private Era', Jakarta water governance had to deal with the physical and administrative legacies of the 'Public Era'; higher spatial concentration of the piped water network in wealthier areas. This came in a bundle with the under-provision of connections to poor customers due to the fear of low cost recovery and the higher installation costs to construct the infrastructure in unregulated and dense informal settlements, not to mention the higher possibility of water theft. To understand the problematic Jakarta water governance, following the main research question in this dissertation, I attempt to demonstrate that *water access is influenced by institutional pathologies in Jakarta water governance*.

During the 'Public Era', patrimonialism dictated that the top priority of water development was to increase production capacity through a small number of large-scale projects, rather than improving the service quality of distribution networks and providing

universal in-house connections a large number of small-scale projects. The priority for network expansion was then influenced by non-state actors, real estate developers and business owners who had an interest in securing water demand for their properties, rather than increasing access to poor households through the construction of pro-poor infrastructures (i.e. hydrants and water terminals). Instead, one of the clauses in the privatisation agreement stated that the gradual closure of hydrants was meant to increase the number of in-house connections. Nevertheless, the lack of network expansion to 'non-premium' areas was balanced by informality and confidentiality through which urban households could receive piped water via illegal connections. As already mentioned, the water companies had been partly successful in taming informality since both the number of hydrant customers and the volume of water sold by hydrants had decreased consistently during the 'Private Era'. However, it should be noted that illegal connections, as the major source of NRW and an apparent representation of informality, had not been able to be successfully tamed when compared to the situation around hydrants.

Thanks to the persistence of patrimonialism and informality, bottled water and refill water had always been the cornerstone of the purview of regulatory activities carried out during the 'Public Era' and there was reluctance from the government to formally regulate the businesses and the exorbitant price of these commodities that were being subjected to increasing demand. As a result of the persistence of those institutional pathologies, Jakarta water governance in the 'Private Era' had not been able to anticipate the latent—and later on explosive—growth of bottled water and refill water industries that had been thriving in low income settlements and penetrating lower income households.

Also, patrimonialism in Jakarta water governance had persisted in the 'Private Era' although the actors had been changing; this time the actors are high-level national actors and international actors who allowed confidential negotiations. Closed-door meetings between the president and vice president of Indonesia with international actors were common and there was minimum transparency about those meetings. This impaired the accountability of those actors in the eyes of the public. Moreover, there was neither public consultation prior to those confidential meetings nor efforts to improve public participation after that. The new organisation created in the 'Private Era', JWSRB, was supposed to have had regulatory power to thus improve the accountability of Jakarta water governance, but the position did not come with sufficient authority to fully tackle the pathological patrimonialism.

Nonetheless, JWSRB had been active in dismantling confidentiality in Jakarta water governance by publishing water-related data and information on their website. Together with

the advance of social media, the progress towards transparency was ongoing and it was expected to further treat institutional pathologies in Jakarta water governance—that had another mission other than increasing the number of piped water connections and providing quality service coverage of a piped water network. The water companies also need to regain trust from the majority of Jakarta residents who have become accustomed to consuming bottled water and refill water for drinking purposes.

CHAPTER SIX - DISCUSSION AND CONCLUSION

6.1 INTRODUCTION

After discussing the ‘theories’ in **Chapter 2 and 3**, presenting the ‘realities’ in **Chapter 5**, this chapter serves to revisit the theories and reconnect the disjuncture between theory and reality. In the previous chapter, I dealt with the persistence of institutional pathologies in Jakarta water governance and its influence to water access both in the so-called ‘Public’ and ‘Private’ eras. In this final chapter, I am going to revisit the conceptual framework first and build discussion around it based on two propositions regarding the ruling relations. After that, I offer the contribution of this dissertation to the body of knowledge of institutional theories. I then continue by relating the relevance of institutional pathologies to the ongoing debate about contemporary Jakarta water governance. Penultimately I provide brief recommendations for policy and future research and finally come into a conclusion.

6.2 REVISITING THE CONCEPTUAL FRAMEWORK

Although the associated meaning of the concept of pathology has been shifting from the measurement of ‘disease’ to ‘health’, the nuance of bureaucratic illness remains. This calls for a reassessment of whether such normative perspective is appropriate, relevant and useful for analysing how institutions actually operate as well as their interplay with the reins of power in Jakarta water governance, and the issue of inequity of urban water access. To respond to such call, in this section, I develop discussion based on two propositions: first, there are *ruling relations* between multiple actors that sustain institutional pathologies and unequal urban water access; and second, that *position, authority, information and payoff* are elements of power negotiations that make up institutional pathologies. Accordingly these influence urban water access as an outcome of the interaction between multiple actors.

6.2.1 Ruling relations

Institutional pathologies can be viewed as a symptom of ‘unhealthy’ organisations in the form of routine and ritualised *internal* bureaucratic culture that can promote dysfunctional behaviour (Barnett & Finnemore, 1999; Holling & Meffe, 1996). Hence this situation should be treated by changing the bureaucratic culture of pathological institutions

from *within* (Briggs, 2003). However, this view dismisses the ruling relations between multiple actors who are external to the unhealthy organisations but influential in the decision-making processes. Ruling relations (see **Chapter 3**) refer to “linkages among local setting of everyday life, organisations and the trans-local process of administration and governance” that “constitute a complex field of coordination and control.” (DeVault & McCoy, 2006. p.15).

As demonstrated in the previous chapter, the source of institutional pathologies is not merely internal bureaucratic culture but rather the ruling relations between different actors at multiple levels (e.g. international, national, local) and multiple sectors; public (e.g. PAM Jaya, JWSRB, government of Jakarta); private (e.g. Suharto cronies, private operators, bottled water and refill water players) and the urban households themselves. For instance, in the ‘Public Era’, there were Suharto cronies who were able to maintain patrimonial relationships with the ruler, influence the pattern of piped water network expansion and provide more piped water connections to residences of the elite. Another instance was the presence of the middlemen who mediated informal relations between multiple sectors and could guarantee access to piped water for urban households that could afford to engage in illicit cooperation with them. In both cases, the ruling relations between those actors sustained institutional pathologies and unequal urban water access.

Textually, the mediated environment is central to the ruling relations in which the texts are not merely explanatory but also instructive, however, they can even be the source of constant tensions. It is the bookkeeping done by hydrant owners that coordinates the ruling relations with ambulatory water vendors. It is the water bills delivered monthly to water users where the piped water was running or not, or not at all. It was the Cooperation Agreement that silenced the parties who were bounded by the confidentiality clause.

Therefore, it is suggested that institutional pathologies transcend the internal bureaucratic culture of organisations. Rather, it is a result of ruling relations between various actors in manipulation and reproduction of “grey zones” where “formal, informal, and illegal spheres may exist concurrently” (Sandvik, 2011. p. 26).

Consequently, the treatment of institutional pathologies requires more than changing bureaucratic culture from within. It is also changing ruling relations that mediate interaction between the multiple actors that produce the outcome. In the context of urban water access therefore, reform within organisations that manage urban water supply has to be extended to external actors who too are involved in the ruling relations. For instance, in order to dismantle confidentiality, the intervention of international actors—which often operate in

the shade—has to be made transparent and their interest in urban water access has to be openly disclosed for public scrutiny.

Nevertheless, considering the herculean efforts required to treat institutional pathologies, its intractability seems to be inevitable. Indeed, organisations and individuals do not exist in a vacuum and have always been restricted by intricate ruling relations with other actors and institutions with whom power negotiations are being made. However, as argued by Selznick (1996. p. 227), one of the proponents of old institutionalism, “pathologies of bureaucracy are real and endemic”, but “they should be considered contingent, not essential, subject to remedy, not inevitable.” To this end, I will proceed to the next proposition in which I will recompose the element of ruling relations into four components of the IAD framework—position, authority, information, and payoff—and reassemble them to elucidate power negotiations between multiple actors involved in urban water governance.

6.2.2 Recomposing the ruling relations: position, authority, information, and payoff

To recompose ruling relations between multiple actors and elucidate their power negotiations I make use of four components of IAD framework—position, authority, information, and payoff—as common ground and relate them to three institutional pathologies. This strategy is in line with recent movements of ‘politicizing IAD’ as a means to sharpening institutional analysis in the context of the political economy (Fischer, Petersen, Feldkötter, & Huppert, 2007; Clement, 2010; Rastogi, Hickey, Badola, & Hussain, 2014; Whaley & Weatherhead, 2014).

First, patrimonialism involves the creation of positions and the distribution of authority to *limited* actors which accordingly affects the payoff (benefits and costs) assigned to *all* actors. Thus unequal power relations come from the behaviour of the personal ruler (e.g. the president) who diffuses power in the form of positions and authorities, to limited actors based on personal relationships (e.g. social or business ties) rather than merit or representation. This action therefore effectively divorces decision making from the real costs and benefits to the majority of the population whose political isolation becomes entrenched (Liddle, 1991; Cowherd, 2002). Since the balance of power between these actors is limited by the distributive capacity of the personal ruler, patrimonialism is inherently prone to crisis development yet its power-balancing feature contributes to its longevity. For instance, at the end of the ‘Public Era’, the decline of Suharto’s power and the shrinking circle of influence that precipitated resistance from the bureaucrats who were against privatisation.

Moreover, their power would be considerably reduced by their positions, and their authority, being given to foreign companies (see **Chapter 4**). However, in the aftermath of the Asian economic crisis and the downfall of Suharto, opposition from the bureaucrats faded away since the new rulers figured out a new power balance that temporarily satisfied the dissident bureaucrats and at the same time entertained satisfaction from the private operators.

Second, confidentiality is an institutional pathology that mediates power negotiations using control of public information, which then structures the payoff for the actors. At community level, urban households who had least access to information had to pay higher prices for a new piped water connection without knowing the real cost and even the consumer rights that came in a bundle with the acquisition of the connection. At a higher level, the parties who signed the Cooperation Agreement and were bounded by the confidentiality clause had to jeopardize their accountability by maintaining the secrecy of their financial statements and separating the water charge from water tariff. This therefore effectively accumulated the debt to the public sector (Lanti et al., 2008).

Third, informality is a locus of political reappropriation from which the position and authority of the actors can be reshuffled into a deck of a set of legal, illegal, formal and or informal actions that then reassemble the payoff. Although at the beginning of this discourse informal practices were considered deviants, which, after being repeated and becoming routine overtime were later considered 'normal' (Barnett & Finnemore, 1999). At this point of relative normality, the actors then could reappropriate the normal into categories of legal, illegal, formal, and or informal—so that the category would match the perceived payoff. For instance, water resale from households that owned a piped water connection to their neighbours was considered a normal practice until in 1990 PAM Jaya formally legalised such practice as it could efficiently improve access without additional infrastructure cost being borne by the public water company (Lukito, 1994; Susantono, 2001). In 1993. The government of Jakarta, which deemed water resale as an illegal practice decided that rather than punishing households who practised water resale, it would introduce a regulation too. The categories of the practice were then reshuffled into something informal so that it could be tolerated to a certain extent without risking the potential of acquiring new customers who could afford a new piped water connection.

The hydrants offer another apparent example of informality as a locus of political reappropriation. In the 'Public Era', considering the low level of service coverage of the piped water network, the hydrant was hailed as *the* pro-poor infrastructure, which, although operationalised informally, could significantly improve urban water access to the underserved

poor population that could not afford to pay for a proper piped water connection. In the 'Private Era', concurrently with the improvement in the service coverage ratio of piped water network, and the increasing presence of bottled water and refill water, the hydrant was perceived as an obsolete infrastructure that constituted water loss, for the tariff of hydrant was the cheapest and heavily subsidised. PAM Jaya then offered criteria for illegal hydrants: proximity to piped water network within 100 metre radius; dealing with complaints from surrounding residents; availability of a water supply: illegal connections and consumption; and unclear ownership (PAM Jaya, 2013).

By distilling the ruling relations as position, authority, information and payoff, it is argued that patrimonialism, confidentiality, and informality are intimately and intricately intertwined. Therefore, other than changing a bureaucratic culture from within and changing the ruling relations, the treatment for institutional pathologies also requires better appreciation of the power negotiations that are embedded in the ruling relations.

6.3 CONTRIBUTION TO INSTITUTIONAL THEORIES

In this dissertation, I have demonstrated that it is necessary to include *both* rules and organisations as the objects of institutional analysis. Akin to a *Matryoshka* doll which contains 'container-within-container', rules encapsulate organisations, and organisations create (new) rules that will encapsulate (new) organisations, and so on, recursively.

For instance, in the twilight time of the 'Public Era', I highlighted how within only two years, from 1995 to 1997, eight temporary organisations were hastily created in line with seven decrees in order to pursue privatisation (see Table 4.3). The relationship between those organisations and the decrees exemplified the recursive mechanism of the reproductive process of institutionalisation. The first and the second decree were conceived by two pre-existing organisations, the Ministry of Public Works and the government of Jakarta that gave birth to two derivative organisations, the Coordination Team and the Negotiation Team which, in turn, reproduced subsequent rules and organisations until they were themselves finally dissolved when the ultimate goal—the signed privatisation agreement—was achieved. These then gave birth to two organisations, two private operators, although both the ownership and the brand of the organisations has changed. Interestingly both of these were actually preconceived even prior to the first decree and the second decree being issued.

In this context, DiMaggio and Powell's (1991. p. 12) affirmation of the theoretical continuity of old and new institutionalism sheds light on the fallibility of rational actor models that are assumed to guide the process of institutionalisation for it is "*a state-dependent process* that makes organisation less instrumentally rational by limiting options they can pursue" (emphasis added). The institutionalisation of the privatisation of Jakarta piped water network mentioned above clearly demonstrates that the rational goal of 'negotiation' to achieve privatisation actually was an irrational dictate given by the patrimonial state ruler, Suharto, for the real goal was neither to achieve an optimal state nor efficiency, but to fulfil his desire to distribute his power to his inner circle, his son and his crony.

The hard-core proponents of new institutionalism may argue that, using the causality dilemma of 'the chicken or the egg', rules come first before actors (organisations or individuals) but a strict adherence to this argument requires an assumption that there are transcendental rules that govern societal arrangement regardless of the historical-material conditions of the actors, a somewhat teleological assumption. Instead, patrimonialism, as one of the institutional pathologies, has a deeper vernacular root in the politically isolated masses that is culturally anchored to a pre-modern societal arrangement that can be traced to the political system of earlier, pre-colonial Javanese empires. These idealised an absolute state with an absolute monarch as the leader with a divine mandate (Roth, 1968; Crouch, 1979; Liddle, 1991). Therefore, in the context of institutionalisation, the 'chicken and the egg' are politically constructed and recursively reproduced, plastic and open for manipulation, and thus I claim that *there are no transcendental rules*, for rules are a malleable expression of the historical-material conditions of the actors. Furthermore, as a consequence of the absence of transcendental rules, institutions are hollow of intrinsic moral values such as efficiency, optimisation, or even progress, for the moral values are artificially injected in the process of institutionalisation.

6.4 CONTRIBUTION TO ONGOING DEBATE ON PRIVATISATION

In the ongoing debate on privatisation, there is an ignorance to acknowledge, and a laxity to redress institutional pathologies. A point was made in the previous chapter that, be it public or private, the management of a piped water supply system can still maintain institutional pathologies, and "reforms do not seem to change the largely personal character of loyalty patterns" (Roth, 1968. p. 203). For instance, in the case of privatisation, the behaviour of Suharto and his family and cronies is more or less similar to the behaviour of

contemporary post-authoritarian governments—they maintain negotiations behind closed doors with no prior public consultation or further public participation, which, in turn, preserves patrimonialism and confidentiality.

This dissertation shares the spirit of agnostic thinking towards public or private control as presented by some authors (Biswas, 2010; Mungkasa, 2006; Ostrom, 1994). It follows the quote of Ek Sonn Chan, the general director of Phnom Penh Water Supply Authority: “[it] doesn’t matter whether water distribution is done by the private sector or a public agency, as long as these institutions are transparent, independent from political pressures, and accountable.” (ADB, 2009). Therefore, in the context of Jakarta water governance, the problems with privatisation are not merely about the treatment of water as an economic good, but are also a continuing pattern of a patrimonial and confidential relationship between the state and non-state actors, national and international actors that mirrors the conditions during the ‘Public Era’.

Rather than being drained by the futility of the debate, I prefer to focus on the pragmatic and practical impacts of institutional pathologies to water access, particularly for the urban poor who has always been paying more to access a lesser quantity and quality of water. In the ‘Public Era’, the majority of the urban poor did not have in-house piped water connections due to pre-conditional factors (e.g. initial fee and security of tenure) and they relied on intermediated piped water provision—distributed by hydrants and corporeal water vendors—that cost five times more than in-house piped water connection making it very expensive. Moreover, it had to be treated first before consumption (Azdan, 2001). In the private era, although the private companies provided a 12-month instalment facility for initial fee, these households had to pay an even higher price for water sourced from hydrants and ambulatory water vendors which was at least 25 times more expensive than the tariff of piped water connection for every poor household. Alternatively, they could buy refill water or bottled water even more exorbitantly priced—at least 200 times more expensive (See Table 5.3). Therefore, the plan to eliminate the initial connection fee can be seen as a breakthrough to improve piped water access to the urban poor. However, we can still question as to whether the tariff should, in fact, be increased further since the high consumption of bottled water and refill water reflects that the urban poor actually does have the capacity to pay these higher prices despite their irregular income.

It is time to expand the debate on privatisation once again. To go beyond privatisation means that we have to take into account the contemporary situation of refill water and bottled water as a form of decentralised industries managed and owned by private

actors. Indeed, the trend of increasing consumption of bottled water can be observed globally and there is a possibility that urban households will shift their pattern of drinking water consumption from piped water to bottled water. As demonstrated in **Chapter 5**, bottled water and refill water industries also maintain patrimonial relationships with state authorities. This will also mean that treating institutional pathologies by severing the patrimonial relationships will persist in contemporary Jakarta water governance.

6.5 INFLUENCE OF GLOBAL POLITIC TO LOCAL WATER GOVERNANCE

Similar to the global trend of privatisation as well as the global trend of an increase in implementing FOI laws (Banisar, 2010), the persistence of institutional pathologies in water management and governance is a global phenomenon too.

The philosophy and objectives behind the targets of the MDGs regarding water supply were founded after the UN Water Conference 1977 kick-off subsequent to their discussion on water access and it was declared for the first time that “All peoples, whatever their stage of development and social and economic conditions, have the right to have access to drinking water in quantities and of a quality equal to their basic need” (Falkenmark, 1977). The conference also recommended the setting up of an International Water Supply and Sanitation Decade 1981-1990 with an ambitious target: “everyone should have access to clean water that is drinkable without any additional treatment” (Biswas, 2010; Guardiola, García-Rubio, & Guidi-Gutiérrez, 2013). Obviously, universal access to readily available potable water was not achieved by 1990 but the decade had definitely increased awareness about water and sanitation issues and promoted them both as part of the global agenda.

As part of the MDG action plan, the WHO and UNICEF developed the criteria for “sustainable access to improved water sources” that included piped water and protected groundwater as well as some technical considerations: the distance to water sources being less than 1 000 metres, minimum consumption of at least 20 lcpd, and the distance to sanitation facilities to be at least 10 metres away. This classification of water sources is problematic, at least, in two instances. First, as a basis on which to analyse multiple water sources as are found in Jakarta. There was a tendency to develop a piped water source and non-piped water source dichotomy that included groundwater and surface water (see Argo, 1999). In the ‘Public Era’, this dichotomy was useful since the consumption of bottled water and refill water was very low and the available alternative, other than informal water vendors, was mostly groundwater. However, in the ‘Private Era’, there was the emergence,

and later on, domination of bottled and refill water as the main sources of drinking water and those water sources cannot be categorised as piped water or non-piped water sources. Consequently, this ‘third category’ cannot be neglected in policy making since they are embedded within institutional pathologies too and compete with other water sources.

Second, the criteria for sustainable access are not fully relevant spatially and temporally in the contemporary setting of Jakarta water governance. For instance, the density of the city population and the distribution of their settlements reduced the distance to water sources naturally. Moreover, the abundance of alternative water providers could guarantee satisfying the minimum consumption of water quantity although there was no guarantee of its quality and affordability. Instead, since piped water is automatically classified as an improved water source, it could still maintain the status of being an improved water source although the quality of water and the quality of service was declining. Similarly, even though it is improbable, in the future the price of bottled water and refill water could be controlled and reduced thereby increasing the consumption further, then it can be simply recategorised as a reliable water source.

Therefore, the real issue for the world has never been simply about access to water—because people without access to water would not be alive—but the important issue to address is “ready access to clean water that can be consumed without any adverse health impacts” (Biswas, 2010). This is the reason why alternative providers who sell drinking water even at an exorbitant price are thriving since they are able to provide the easiest access by far—just open the cap and you are ready to quench your thirst!—perceived as having a less negative health impact. As discussed in **Chapter 2**, institutions are made from linkages between institutions-as-rules and institutions-as-equilibrium that are recursively reproduced. Consequently, a shifting pattern of drinking water consumption is not only influenced by institutional rules since the water users also have their internal motivation, the desire to drink the ‘instant’ water. Another friendly reminder: concurrently with improvement of piped water services, the water companies had to redress the corroded trust associated with the quality of piped water services that is embedded in the internal motivation of urban household members.

6.6 CONCLUSION AND RECOMMENDATIONS

In this dissertation, I have attempted to establish the relationship between institutional pathologies and urban water access. It is suggested that urban water access is

influenced by three institutional pathologies, namely, patrimonialism, confidentiality, and informality. Nevertheless, the theorisation is far from complete and there is need to develop further research for each institutional pathology.

Acknowledging the recursive reproduction of and linkage between institutions-as-rules and institutions-as-equilibrium, some policy recommendations that I provide are not only about the policy itself but also about policy-making processes. The recommendations are as follows:

- *Social media* - whereas policy making processes have been conducted mostly in confidentiality until recently, the development of social media has increased transparency and public participation at the same time. Moreover, it may also corrode patrimonial rule since it can activate the passivity of politically isolated masses and mobilise the urban population. It is recommended that Jakarta water governance become a pilot project for assessment of the impacts of social media for the improvement of urban water access. Although the key actors, JWSRB, PAM Jaya, Aetra, and Palyja, in Jakarta water governance have their own website, they have not fully utilised social media to enhance increased information dissemination and interaction with customers. If we reflect on the successful experimentation with social media done by the government of Jakarta Province, then it is not impossible that the key actors in Jakarta water governance can have the same level of success. There is even another city in Indonesia that can be used for comparison: the recently elected mayor of Bandung, another major urban centre in Indonesia, has been extensively using social media to communicate with the public and PDAM Tirtawening (Bandung's public water company) and is one of the first targets of his experimentation with social media.
- *More attention to informality* - although policy is a formal domain, policy-making processes should take into account informality as a meta-rule that to cultivate the habit in the makeup of actors in Jakarta water governance. Therefore the outcomes of policy-making processes will be internally enforced since the policies reflect the behaviour of the actors. While policy makers are accustomed to informal interaction with other policy makers, they also need to learn about informal interaction with other actors, particularly the urban poor.

Although this dissertation deals mainly with institutional pathologies and its influences on urban water access, in this dissertation, I do not name institutional pathologies, I just seek to

treat them. I do it because I think there is a need to develop a shared language that can be used to rethink the seemingly persistent governance issues, to reflect on the path-dependent causes and responses and to bind that knowledge gained into concepts that are opened up for future research. The recommendations for future research are as follows:

- *To investigate the limit of patrimonialism* - when compared to confidentiality and informality, patrimonialism has a deeper vernacular root meaning since its genealogy can be traced to pre-modern societal arrangement. Therefore we can further question whether patrimonialism can be fully eliminated because it will require a radical change in ideology and culture. Hence theoretically, such change will require a large-scale revolution. Accordingly, it is recommended to investigate the limits of patrimonialism, at least at the scale of urban water governance.
- *To develop and refine the concept of informality* - in this dissertation, I only began to identify the impact of informality on daily urban water access. However, the problems of urban water governance are not only about access but also the fact that informality is embedded in the daily urban lives of people in southern cities. Therefore further examination of the role of informality and daily water access in urban water governance is more than necessary to develop theories based on the experiences of southern cities.

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