SERVICE DELIVERY TO INFORMAL SETTLEMENTS IN
SOUTH ASIA'S MEGA CITIES

The Role of State and Non-State Actors

By

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Abstract

This interdisciplinary research project compares service delivery outcomes to informal settlements in South Asia's largest urban centres: Dhaka, Karachi and Mumbai. These mega cities have been overwhelmed by increasing demands on limited service delivery capacity as growing clusters of informal settlements, home to significant numbers of informal sector workers, struggle to obtain basic services. In the absence of state supports, some informal settlements engage non-state actors to obtain services. In order to compare service delivery outcomes through these actors, I used a layered, mixed methods approach guided by an interdisciplinary literature review and policy examination. I drew on semi-structured interviews as well as pairs of case studies to measure successful and unsuccessful service delivery outcomes in each of the three mega cities.

Key findings are that chronic disconnections exist in all three countries, where upper tiers of the state persistently fail to create an enabling environment for lower tier state actors and municipal service delivery machinery. The cause of these disconnections is the persistent colonial impression on the bureaucracy, Neoliberal policies and the appropriation of public resources by organized crime and their backers, urban elites. Non-state actors have facilitated service delivery to informal settlements, resulting in isolated success and improved levels of human development. However, the case studies demonstrate that the success of non-state actors is attributed to support from lower tier state actors. A complex political economy of upper and lower tier actors, rooted in unresolved land ownership and elite interests is disabling the capabilities of lower tier state actors to extend services to the urban poor.

The study informs our understanding of the role played by technical non-governmental organizations (NGOs) in facilitating representative community-based organizations (CBOs) engagement of state service delivery providers. The study illustrates the differential attitudes between upper and lower tier state actors towards informal settlements. The study also separates the 'development industry' from grass root representatives of informal settlements. The study also affirms the ability of informal settlements to organize, mobilize and engage municipal service delivery providers. The study emphasizes the need to remove constraints that upper tiers of state and society place on informal settlements in order for equitable development and sustainable levels of service delivery to be realized.

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This dissertation is dedicated to the memory of our dear friend, the late Ms. Perween Rahman. May her sacrifice and example continue to inspire and motivate generations of community based organizers in Karachi, Pakistan, South Asia and across the Global South.

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1 Introduction

Prior to discussing my research focus on informal settlements in South Asia, it will be helpful to identify two phenomena, a historical and contemporary one, that have contributed to the proliferation of informal settlements and the rapid increase of the informal sector across the Global South. The most obvious one is the impact of the legacy of colonialism while the more subtle involves the spread of neoliberalism. These phenomena have created deep and permanent imprints across South Asia's urban landscape. Colonialism has had irreversible impacts on political arrangements, bureaucratic infrastructure, social relations, administrative instruments, urban planning and patterns of wealth distribution. During the pre-colonial period, a system of privilege dispensation encouraged the circulation of resources between rural and urban economies. For instance, the *Mansabdari* system under the Mughals in pre-colonial India established their territorial authority as superior right-holders through a mechanism of tribute collection from rural producers (Aziz, 1972). While this system enabled the exploitation of agrarian producers, peasants and small farmers, it allowed for tribute rates to be adjusted during arid seasons. This alleviated financial pressure from rural economies during periods of poor crop performance. It also enabled the emergence of an urban society with niches for artists, entertainers and other servants to the wealthy nobility (Amin-Khan, 2012).

In contrast, once the British colonizers imposed the English fief in colonial India, they dismantled the elaborate system of Mughal-era superior right holders, thereby denying the sustenance of the artistic class, and facilitated the destruction of the emerging urban society. Furthermore, British colonizers made no allowance for leaving agrarian lands fallow thereby permitting their regeneration – a practice followed by the Mughals. The aims of British colonial rulers were to extract as much surplus as possible from rural society. During the first 25 years of colonization, they quadrupled the quantum of tribute collection paid by the rural poor to the colonial rulers (Alavi, H., 1989). There is no question regarding the overbearing conditions for the peasantry under the Mughals. However, the conditions for the

peasantry and poor farmers became far more oppressive, disruptive and onerous under colonial rule¹. The organic and symbiotic development of rural and urban economies that was underway with the Mughals ended abruptly and violently once colonial rule was established – a consequence that continues in the decolonized context. This is due to the legacy of social relations established under colonialism which, at many levels of state and society in present South Asia, appears to have been preserved. Based on this brief sketch of the colonial legacy in South Asia and in terms of my comparative study, I am suggesting that although social relations in the three South Asian states of Bangladesh, India and Pakistan have been adversely impacted by this legacy, it manifests in different ways across these three states, specifically across large urban settings.

In addition to the impact of the colonial legacy, neoliberalism has enabled the incredible growth of informal settlements and the informal sector. For instance, the number of slum dwellers is growing globally by 10% per annum (UN Habitat, 2011). Although this phenomenon has had implications for globalization and urbanization, its impact has been noticeably different between developed and developing countries. South Asia has the highest concentration of informal sector workers in the world based on non-agricultural employment. Informal settlements make up a considerable proportion of the urban landscape in South Asia: on average, 55.5% (Bangladesh), 84.7% (India), and 73.6% (Pakistan) of the respective urban populations reside in slums and/or low-income areas (Davis, 2006). Over 40% of the population of cities in South Asia are employed in the informal sector (UN Habitat, 2003). The promotion of privatization, deregulation and economic liberalization became known as neoliberalism in the early 1980s – with the dismantling of the public sector in Britain, the US and Germany under Margaret Thatcher, Ronald Regan and Helmut Kohl respectively. While the public sectors of developed states were only now being given their first taste of the 'right turn' based on an ideological shift in social and economic policies, a form of neoliberalism had already been implemented in the global South since the mid-1970s by the Bretton Woods Institutions (led by the IMF with support of the World Bank) in the

¹ By comparing the treatment of the peasantry under colonial rule to the conditions of Mughal times by no means suggests a return to previous systems of tribute collection. The comparison is meant to illustrate how conditions for the working poor deteriorated and the pattern of social and economic polarization is intensified under colonial rule. As I will return to later in the chapter, the forces which underpin and perpetuate social polarization and economic inequity persist to this day.

form of 'conditionalities' on loans (later, as structural adjustment programs – SAPs). These policy impositions (continued through the GATT-WTO) have had serious consequences for the rural poor as SAP-initiated displacement and market liberalization exacerbated patterns of urbanization already underway, by extending the colonial-era divide between rural and urban into the present. At this point it should be noted that the majority of research has focussed on the impact of neoliberalism at the level of the nation state. There is an under representation of research on the impacts of colonialism and neoliberalism on municipal and urban settings, as we will discuss next.

Neoliberalism has unleashed the profit taking interests of transnational corporations (TNCs) which operate freely across international borders and economic systems. These powerful economic actors bypass the economic sovereignty of nation states and collaborate with internal elites across the global South reorganizing state and society. Their presence has been felt in urban centers where their corporate offices, industrial activities, dominant supply chains, patterns of production and investment behaviours have crowded out domestic industry (consisting of diverse and sophisticated networks of small and medium enterprises). The interventions of TNCs have also been felt in state policy circles, as their corporate interests have eclipsed other social and development related priorities. The convergence of these internal and external forces across the global South in the era of neoliberalism has intensified market liberalization, privatization, urbanization and export led growth.

The resurgence of neoliberalism emerged from the economic failures and stagnation of 1970s Keynesian economic policies. The rise of the Chicago school and the spread of market based ideas resulted in the creation of a new international division of labour where the deindustrialization of the Global North led to the transferring of labour-intensive operations to the Global South, especially in urban centers. Capitalism spread as the displacement of labour across the Global South provided low wage labour for export led growth. This resulted in an increase in informal sector work and sweat shop activity as trade liberalization measures (imposed by the GATT-WTO) required developing countries to deregulate, suspend labour laws and create export processing zones that would attract TNCs and 'crowd in' economic activity. The result has been the growth of informal sector labour in urban centers and the spread of informality, where low wages, the absence of benefits and recognition of worker needs and rights marginalizes their development. At the same time, subsidies to the poorest sections of the population were removed in much of the global South as result of SAPs and other neoliberal measures.

These developments, promoted by the WTO, accompanied and reinforced the aims of structural adjustment policies of the IMF and WB. In this way, neoliberalism was superimposed on the legacy of colonialism, where the displacement resulting from colonialism created the conditions by which neoliberalism could be entrenched across the urban centers of the global South.

The simultaneous spread of informality and the growth of informal settlements since the 1970s is evidence of the tremendous exploitation of informal sector workers by capitalists and neoliberalism influenced state policies. In many OECD countries, informal employment accounts for over half of non-agricultural employment. In regions such as Sub Sahara Africa and South Asia, the numbers are as high as 80% (OECD, 2009). The resilience of informal settlements is the result of the urban poor and informal sector workers struggling to eke out an existence in order to meet their most basic of needs. For example, the number of slum settlements in Dhaka has doubled from just over 2,000 in 1993 to nearly 5,000 in 2005 (CUS, 2006). It is also the result of insufficient planning by state authorities to address their needs and plan for future requirements (given the unending stream of rural to urban migration). It also illustrates patterns of uneven development, a well-known consequence of capitalism. Another consequence in the South Asian context -- displacement from mechanization and land concentration -- is a result of capitalist development extending into the agrarian sector. Urban population growth in Bangladesh, India and Pakistan from 2007 to 2015 outpaced total population growth by nearly 30 times (World Development Indicators, 2015). The displaced village workers, because they have nowhere to go within the agrarian setting, are forced to migrate to urban centres only to become part of the informal sector. In India, an estimated 93 per cent of the workforce is employed in the informal sector.² In Bangladesh, the proportion of workers in informal employment rose from 76.2 per cent in 1999-00 to 87.5 per cent in 2010 and contribute to 30 per cent of GDP (ILO, 2015). In Pakistan, the proportion of workers in informal employment rose from 63.8 per cent in 2001-02 to 73.3 per cent in 2012-13 (ILO, 2014). In both countries, over 40% of women workers are unpaid contributing family workers as compared to only 11% of men (United Nations, 2005). Once they are absorbed by the informal sector,

² The informal sector in these studies encompasses informal sector labor that is employed as entrepreneurs and stand-alone proprietorships as well as informal labor which are employed by the formal sector in poor conditions.

they become a reservoir of flexible and inexpensive supply of low-wage labour. This captive pool of unemployed labour ensures that continued low-cost production and substantial surpluses can continue to be extracted. An estimated 57 per cent of India's urban labourers earn wages below the nationally stated minimum and are subject to working hours that exceed the average eight hours as outlined by labour laws, and work conditions and environments are often appalling (Mukherjee-Reid, 2010).

Neoliberalism has permitted and in fact encouraged industrialization and the mechanization of agriculture, which have all contributed to the displacement of people from rural communities – reducing them to unemployed rural workers who have no alternative other than to migrate to urban centres. It is therefore not surprising that these displaced workers have taken up building rudimentary residences in clusters of informal settlements near export development zones and urban free trade areas. I will return to the relationship between displaced labour and neoliberalism later (please see section 2.4.2 for a more comprehensive discussion). One can appreciate that in the absence of sufficient housing and service delivery planning, informal settlements have ballooned across the region. As existing service delivery machinery has been overwhelmed, market forces and private industry have captured the policy agenda. For example, municipal planning is driven more by myopic developer led agendas than broader community based consultations and needs. As a result, capitalists have been able to push through large resource-intensive projects that cater to the profit-taking interests of elites while neglecting the needs of the informal sector. The result has been the establishment of enclaves of wealthy elites and the spread of informal settlements. Although the regions' economies continue to benefit from low-wage labour, the benefits have not moved down to the poor while the state has continued to neglect the human development needs of the informal sector. The absence of basic service delivery to informal settlements reflects the development disparities across the regions' urban centers. The gap in human development indicators between upper- and lower-income groups has widened in recent years, and informal settlements are proliferating in many large cities in Latin America, Africa, and Asia.

1.1 Research Focus

The exploding rate of labour markets and 'informality' in the developing world presents numerous challenges for urban policymakers and service delivery providers. Although I will expand on these dynamics later, it is important to recognize the impact of the spread of informal settlements. My research focusses on the policy challenges facing informal settlements in three of South Asia's mega cities and the implications for service delivery. These mega cities are complex sites of production where

capitalists extract substantial surpluses from a fragmented labour pool. The weak and yet swelling ranks of this labour pool are the result of urbanization and is closely tied to the region's struggles with its colonial legacy. The well planned and serviced enclaves of the ruling elite are in stark contrast to the squalor of poorly built homes. The absence of sanitation and other basic services has permitted the spread of disease and poor health. Nevertheless, market facing policies coupled with the mechanization of agriculture and industrialization of cities have attracted more informal labour. Rising levels of social and economic inequality have been left unchecked. The result has been informality and the further marginalization of an unprotected labour pool participating in the informal sector.

Many urban policy commentators argue that the solution lies in privatizing urban services, pursuing market-led development, and embracing neoliberal policy prescriptions. I argue that in reality, it is these very policies of market-orientation that entrench the interests of elites in the formal sector while constraining the formalization of the informal sector – without problematizing neoliberalism or the legacy of colonialism that remains ossified in the post-colonial state. As development lobbies, real estate brokers and other elites battle over claims and tenure to public and private lands, weak policy frameworks (such as failed land reforms) and institutional structures are exposed to graft, corruption and exploitation. The various layers of the bureaucracy, previously beholden to colonial elites, are now influenced by local elites and cater to their interests. Over time, influential state actors form alliances with elites to appropriate public lands, goods and resources for their own gain. The result of which, is widespread corruption as upper tier state actors tied to organized crime groups (who appropriate public land and public water) exploit informal settlements through the extraction of rents while denying residents of basic services. Before I continue, let me expand upon my use of the terms, upper and lower tier state actors, a distinction in the post-colonial context that has its roots in the structure of the colonial state's bureaucracy in South Asia.

Across the policy literatures, assumptions persist regarding the applicability of Eurocentric approaches to developing country administrations. Policy research, for example, focusses on increasing engagement

between the political leadership and the public,³ while ignoring the hierarchical nature of the bureaucracy, especially in the post-colonial context. This theoretical position, ignores the hierarchical structure and dynamics of South Asia's state machinery, which bears a heavy imprint of the colonial state structure that was in the service of the British colonial occupation of India. The impact of this legacy meant that the colonial state's hierarchical structure, re-imposed in the post-colonial era, was effectively a re-creation of a class of higher level⁴ bureaucrats (considered worthy of engaging the ruling class) who were educated and groomed to cater to elite interests through the creation of closed circuits of social and political engagements. Lower echelons⁵ of the bureaucracy (more representative of society as a whole) were left with limited opportunities for education, development or decision-making power as compared to their superiors. Furthermore, while members of higher levels of the civil service are well respected and their positions at the federal and provincial levels considered prestigious, lower level posts within the provincial (specifically those that engage the IS) and municipal levels are often perceived as 'punishment positions' and remain under-equipped and less developed in their capacity for service delivery (Shaheen, 2009). The intergovernmental fault lines created by colonialism, prompt me to highlight the divide by examining the post-colonial state within the context of the bureaucracy's upper and lower tiers.

It is within this policy and political and economic framework, my dissertation explores the challenges to water and sanitation service delivery to informal settlements in South Asia's largest mega cities: Dhaka, Karachi, and Mumbai. I analyze the roles and differential attitudes of different state and non-state actors involved in extending and sustaining services. I also examine how, despite a disabling policy context, members of the urban informal sector engage civil society organizations in an effort to self-organize. Once mobilized, informal sector labourers, many of whom reside in informal settlements, are able to leverage local knowledge and obtain services from the state.

³ It should be mentioned that many of the solutions accept the reality of foreign involvement and the introduction of governance models that rely increasingly on the transfer of state responsibilities to the private sector.

⁴ This upper tier of bureaucrats and politicians, are largely employed within the federal and provincial levels of government. These positions are largely prestigious and do not actively engage society or the IS.

⁵ The lower tier of bureaucrats and politicians, are largely employed within the provincial and municipal levels of the government. These positions are occupied by more front line civil servants and are nested within IS communities.

The literature on informality consists of interdisciplinary contributions that link neoliberal forces with the informal sector and informal settlements. I unpack the role of market forces (stemming from neoliberalism) in my examination of the displacement of rural labour and their continued migration to urban settings. Urban markets and industrial settings benefit from the supply of low wage labour and the surplus available to profit taking enterprise. For instance, private sector led 'development' projects utilize this low wage labour pool (during construction of highways and other formal infrastructure) while excluding them from the decision making (informal settlements are levelled to make room for highway corridors). Now, this dissertation is not meant to offer a comprehensive critical analysis of neoliberalism per se or of capitalist development in the global South in the period of neoliberalism. Therefore, I will restrict this part of the introduction to outlining the key terms relevant to my research and analysis: informality, informal settlements and informal sector work. I will discuss these terms more fully in section 1.3.1.

I view 'informality' as the consequence of rural migrant displacement, industrialization, mechanization of agriculture and most of all the failure of urban governments and society to absorb the inflow of displaced labour from rural areas, and recognize their contribution to the urban economy. Informality contributes to enlarging the life chances of poor and low-paid workers of the formal sector who rely on low-cost goods and services from the informal sector. Informality defines the existence of people who work in the informal sector, outside the realm of the formal capitalist economy and purview of state-sanctioned services, government protection or the enforcement of labour laws, social cover and security. Many of these informal sector workers live in informal settlements that are considered "irregular" and "illegal" by the state. The enormous human toll of informality is visible in the condition of informal settlements. These settlements start as largely rudimentary makeshift arrangement that displaced people cobble together for basic shelter and survival, which then take on a life of their own as the state in South Asia, and the global South more generally, remains aloof and indifferent to the needs and wellbeing of communities impacted by rural displacement. This indifference of the state leads to the rise of informality at one level and, at another, makes available a very large body of unemployed workers that are willing to work for depressed wages in order to subsist. Because this pool of labour is being regularly replenished by future rural displacements, it becomes captive to the exploitive impulse of capitalists and downward pressure on wages. Consequently, informality becomes a concomitant part of capitalist development, and informal sector workers as ready and exploitable reserve for the needs of capital. Although informality is marked by destitution, poverty, oppression and exploitation, people in

informal settlements – by their sheer determination, grit and creativity – manage to use their creativity and ingenuity to create as dignified an existence as is conceivable under very challenging and troubling circumstances⁶. My case studies below will provide the reader with some sense of the challenges posed by informality, and how some of these have been mitigated by the activities of those who reside in informal settlements.

The ‘informal sector’ is the ballooning pool of displaced rural migrants struggling to survive in urban centres. The ranks of the informal sector have swelled as a result of continued rural-to-urban migration and neoliberalism-triggered displacement. This group of largely ‘family-run operations’ functions outside of government regulations and remains unrecognized by the state. Many of these operations begin with individual migrant workers leveraging whatever skills they have to carve out an economic niche for themselves within the urban economy. The absence of state engagement (such as documents linking the individual to a formal address) excludes them from services and forces them into the informal sector. Many of them start off as food vendors, cobblers, waste collectors, day labourers and transportation operators. Over time, informal sector workers may find jobs as house servants, garment workers or rickshaw drivers. The more entrepreneurial among them will start small cottage industries (shops, recycling depots) supplying goods and services to small and medium enterprises. The patterns of informal sector employment have been fuelled by Neoliberalism and the low wage comparative advantage sustained by local industry. In order to remain competitive, local industries contract out work, suppress wage rates, and reduce formal sector work (Amin-Khan, 2012). My primary research and case studies in particular, illustrate how the development costs of neoliberalism have been borne largely by members of the informal sector who are unemployed, underemployed, or engaged in precarious work. For a fuller discussion of the relationship between the informal sector and neoliberalism, please see section 2.4.2.

The diversity of economic niches that are carved out by the informal sector, is paralleled by the range of improvised shelters and complexity of communities which they inhabit. In the absence of sufficient

⁶ Ideas for the explanation of informality are from Tariq Amin-Khan, “Rural Social Relations and the Disruption of the Rural-Urban Dialectic in Post-Colonial Societies.” Unpublished paper presented at the XIV Congress of Rural Sociology, August 10-14, 2016, Ryerson University, Toronto

levels of affordable tenements, informal sector workers will occupy any and all available public and/or private spaces where they can rest between periods of work. In the most 'impermanent' of conditions, informal sector workers are pavement dwellers, sleeping on the streets, sidewalks and alleyways near places of employment. Although this reduces their costs of habitation and transport it increases risks to their personal security and permits their employers to dictate their availability, suppress their wages and marginalize their rights even further. Given the spatial dispersal of this group of informal sector workers, it is difficult to study and even engage them holistically. At the more 'permanent' end of settlements are those informal sector labourers who reside in temporary or semi temporary housing, often referred to as shanties, slums or more broadly, informal settlements. These informal settlements, or communities of shelter are generally not recognized by the state but are the most practical sites from which service delivery to the informal sector can be both extended and studied: at these sites, one can explore and analyze interactions between non-state actors (NGOs and CBOs, which support the informal sector) and state service delivery providers (underfunded lower tier state actors) as they engage or disengage the members of the informal sector. For example, non-state actors such as non-government organizations (NGOs and CBOs) are mobilizing representatives of the informal sector to self-organize as community-based organizations (CBOs). These CBOs are mobilizing the informal sector to advocate for themselves and facilitate some basic levels of service delivery from lower tier state actors. Although I will return to a more specific discussion of these interactions later (refer to 2.3.1 for a discussion of non-state actors), the centrality of the informal settlements context to the human development of the informal sector must be recognized. My case studies will profile them as sites of service delivery. My research approach is unique in that it unpacks relationships between the different tiers of the state in relation to the informal sector. In the following sections, I examine in more detail, the relationships between the informal sector, non-state actors, and their interactions with upper and lower tiers of the postcolonial state as part of service delivery efforts. Let us now turn to the research problem as framed by colonialism and neoliberalism.

1.2 Research Problem

Colonial-era policies are one of the more significant structural impediments behind the continued social and economic polarization of South Asia's mega cities. Part of this colonial legacy began with the sharp segregation between 'elite ruler' and 'native administrator.' (Siddiqui et al, 1998). Most researchers agree that colonialism created a pliant elitist upper tier of state actors as part of its empire-building

goals of resource extraction, tribute collection, control, and profit maximization. The new, post-independence 'native elites' continued their dependency on the new post-World War II imperial power, the US and embraced development models supported by the Green Revolution and mechanization of agriculture, which drove rural-to-urban migration as farm labourers continued to be displaced by the introduction and expansion of technology. These elite policymakers also adopted Western-influenced import-based industrialization (instead of import substitution), urban manufacturing, and export-led development zones as a means of facilitating state restructuring which, in the absence of meaningful rural development policy, has resulted in the informal sector being further marginalized. Although this may appear to lay almost exclusively the blame on external actors for persistent social and economic disparities in South Asia's urban centers, I argue that internal factors are also at play. Specifically, I maintain that upper tier state actors have continued to adopt neoliberal thinking – originally promoted by the IMF and the World Bank – by facilitating economic globalization and opening markets to foreign investment, and transnational corporations based on establishing free trade zones. Critical researchers generally agree that the gains made (by elites) from neoliberal policies, now via the GATT-WTO, have been at the expense and exploitation of the informal sector (Davis, 2006). I argue that the alignment between foreign interests and these upper tier state actors has created the conditions for continued inequitable development and marginalization of the informal sector.

The iron cage that allowed the upper tier of the state to retain decision-making power have had disastrous effects on urban planning and municipal service delivery. Market-oriented neoliberal policies transposed on colonial-era frameworks have further polarized the relationships between different levels of government. Over time, a dichotomy has emerged between upper and lower tiers of the state, reflected by a 'differential attitude' expressed as a willingness (or lack thereof) to engage informal settlements. For example, upper tiers are often accused of 'policy formalism,' which results in badly designed 'pro poor' policies and insufficient funding of implementation machinery (Farazmand, 2009). The majority of national poverty reduction programs have failed due to their distance from urban decision-makers and complex service-delivery contexts. At the municipal level, little evidence from the urban literature points to much impact from national-level policies on the whole. In reality, lower tier departments ranging from healthcare providers and educational institutions to public works departments have all suffered from neglect, political interference, and dwindling resources. The limited resources that have been transferred have only ensured that services are provided to the wealthy upper classes of society. In my interviews, many frontline bureaucrats (lower tier state actors) and

functionaries complained that their roles have been reduced to serving as personal servants of the upper tier state actors. As a result, state services are delivered inequitably across class and income groups.

In order to make up for the insufficient capacity of state service delivery machinery, non-state 'for profit' actors are engaged in the service delivery process. Private firms will often be contracted to ensure that wealthy neighbourhoods are provided with an adequate level of service. Civil society actors strive to provide services to informal settlements either in cooperation with or independently of the state. Many commentators (Zerah, M-H., 2009, De Wit and Berner, 2009) argue that non-state 'for profit' actors are a by-product of neoliberal policies and will eventually 'substitute' the work of state machinery by creating markets for service delivery and development. Such criticisms rightly point out that the efficiency of 'for-profit' actors is in response to market structures and financial incentives, rather than taking responsibility for human development. However, many non-state actors are supporting the capabilities of the state by developing and facilitating alternative service delivery models to counter the imbalances created by market forces. My study findings contribute to the literature by helping to clarify the roles played by different tiers of state actors. Analysis from the case studies reveals the pivotal role played by non-state actors.

Most of the interdisciplinary research treats state actors simply as one-dimensional functionaries in a homogenous institutional structure. In contrast, my research distinguishes between the capabilities and capacities of upper and lower tier state and non-state actors, in *influencing* the extension or denial of municipal services to informal settlements. Many critical researchers dismiss state actors as corrupt and accuse non-state actors of attempting to substitute for the state as part of the neoliberal project. In my policy examination of the urban water and sanitation service-delivery context, I challenge this assumption based on my research findings and analyzing the specific roles of different tiers of state actors, infrastructure, and institutions of service delivery provision. I also assess the role played by different tiers of non-state actors in relation to informal settlement development and state service-delivery machinery. Many comparative institutional studies neglect the political and economic context that affects administrative processes: I explore these relationships by establishing linkages between neoliberal policies, corrupt state actors, criminal organizations, and weakened, outdated colonial-era policy frameworks. Additionally, most development studies contributions dismiss the role of state actors in service-delivery solutions. In contrast, I explore the differences in will and ability between different

tiers of state and non-state actors in extending services to informal settlements. These differences have more to do with the entrenchment of neoliberal policy thinking which, when coupled with the colonial legacy of upper-tier bureaucratic elites, ends up serving upper class interests.

1.3 Issues in Informal Settlements and Informal Sector Research

Issues related to informal settlements and the informal sector are explored by examining water and sanitation service delivery to informal settlements in Dhaka, Karachi, and Mumbai. I employed a layered methodology, supported by primary and secondary research on the roles of upper and lower tier state and non-state actors in extending services to informal settlements. Given the discontinuous and opaque nature of state institutions and data sources, I employed a comparative approach to manage the diversity of sources. Qualitative data were categorized using five specific comparator variables that are frequently cited across the urban and development studies literatures: political representation; inter-governmental relations; accountability and transparency; pro poor initiatives and civil society engagement via NGOs and CBOs. These variables were used to categorize factors specific to upper and lower tier state and non-state actors in extending services. By grouping evidence through these five comparator variables, I was able to cross-reference and triangulate findings between different actors, levels of government, and mega cities. The layered methodology included a case study heuristic, which enabled comparisons between different mega city (national) policy contexts. Each of the case studies demonstrates how specific variables act as determinants of successful and unsuccessful service delivery outcomes. Compared with previous research, my analysis offers more depth and resolution in terms of data related to mega cities.

1.3.1 Informality: Distinguishing between the informal sector and informal settlements

Defining the informal sector and its relationship with informal settlements is both complex and multilayered (IIED, 1995; Wratten, 1995). There are a wide range of debates surrounding informality, the informal sector, and informal settlements. In this section, I describe the relationship between informality, the informal sector and informal settlements as they are related to the research problem and associated questions. I will return to some of the definitions in my concluding chapter, when I

discuss the findings in light of the broader themes of urbanization, neoliberalism, informality and service delivery to informal settlements.

South Asia's mega cities are home to a growing population of migrant workers, many of whom find employment within the informal sector. Supply chains that drive capitalist production in urban centres often begin with labour and/or materials supplied by the informal sector. As market competition places downward pressure on input prices, a growing number of 'undocumented and unregulated companies' and firms that avoid 'paper policy compliance' become low cost suppliers to formal sector activities (Mahadevia, 1998). To remain competitive, these undocumented companies employ large numbers of informal sector labourers at wages far below those of formal sector competitors. A persistent surplus of migrant labour ensures that market wages remain low. The ample supply of low-cost labour subsidizes formal sector profits, perpetuating the cycle of polarization between capitalists and labourers. This is evidenced by the chronically poor human development indicators of informal sector workers.

Unsurprisingly, this 'informal' or 'unorganized sector' has been identified as the main cause of surging population growth (Davis, 2006). Poorly implemented development policies and state indifference have resulted in increased internal displacement and rural-to-urban migration, and a corresponding growth in unplanned, informal settlements and communities (Stren et al., 1994; Siddiqui, 2005). Populations across these communities have swelled due to increases in the numbers of informal sector workers within South Asia's urban labour pool (Alavi, 1997; Siddiqui et al., 2004). More than forty percent of South Asia's urban populations are employed in the informal or unorganized sector (UN Habitat, 2003). The informal sector is defined by the United Nations as *'those units which typically operate at a low level of organization, with little or no division between labour and capital as factors of production and on a small scale'* (ILO, 1993). Others see the informal sector as a bridge to employment in the formal sector (Hart, 1973). The 1976 ILO study of the informal sector along with other UN reports has generated a number of definitions. For my purposes here, I define the informal sector as 'labour that provides flexible and elastic services to the formal sector and direct as well as indirect subsidies' (Bose, 1974).

To retain employment, many informal sector labourers live in the streets or informal settlements near places (construction sites, manufacturing facilities) of work. The dense and impoverished mega cities in South Asia have expanded to include a broad range of informal settlements. Informal settlements have long histories in Africa, Latin America, and Asia (Myers, 2010), and some scholars have equated them with slum dwelling, which, by most accounts, is highly prevalent in South Asia: on average, 55.5 percent

(Bangladesh), 84.7 percent (India), and 73.6 percent (Pakistan) of urban populations reside in 'slums' and/or low-income areas (Davis, 2006). My policy analysis groups slums as well as *goths*, *katchi abadis* and *bastis* within the definition of informal settlements. I will return to this term momentarily.

Recent findings from urban research have identified multiple benefits and costs associated with informal sector labour. For instance, whether labourers are seasonal, permanent, displaced, or temporary, their relocation has been linked with increased remittances to home towns and villages. Increased remittances to rural towns and villages have been found to play a role in alleviating poverty and under-development (Yeung, 1994; Siddiqui, 2005). However, the presence of informal workers in host cities places a substantial burden on already weak municipal service-delivery capacity. A political economy of service delivery limits human development among migrant workers and permits human deprivation (MUH HDC, 2011; Myers, 2011). From this perspective, it can be argued that healthier, more productive informal sector workers will generate more remittances and contribute to improved development outcomes for rural towns and villages. In policy terms, this mean improving basic services to informal settlements.

Interdisciplinary policy research on informal settlements has yielded a range of definitions. Informal settlements are defined by the United Nations as "those households residing in urban or peri-urban areas that are not recognized by the state (as part of GDP calculations) or formally connected to municipal services" (UN Habitat, 2003, pp 10). The terms 'slums,' 'unplanned communities,' 'low-income areas,' and 'squatter settlements' have also emerged to describe unplanned housing that lacks formal recognition by the state (UN Habitat, 2003; Davis, 2008). I apply the term 'informal settlements' to clusters of such communities that have remained unrecognized by the state and which over time, have been enveloped by expanding urban centres. These unrecognized settlements are often referred to as '*bastis*,' '*katchi abadis*,' slums, or '*goths*' in urban South Asia. Many urban centers across the Global South continued to expand and engulf more of such settlements into their municipal jurisdictions. Nevertheless, informal settlements continued to struggle with access to basic services. In 2008, a UN meeting in Nairobi characterized informal settlements as being overcrowded, composed of poorly constructed and/or informal housing structures with inadequate access to safe water and sanitation, and insecurity in terms of tenure (UN Habitat, 2008). This however, has not stopped some informal settlements from struggling for recognition. More recently, informal settlements have been

documented as mobilizing and struggling to obtain access to basic services from states (SDI, 2010; UN Habitat, 2011).

Most previous research has focused on the marginalization of these communities as a result of exclusion from economic opportunities and deprivation due to the absence of public services (Davis, 2005). I take a different approach by focusing on the experiences of informal settlements in trying to engage service delivery providers and gain recognition. Once services are extended to informal settlements, the settlements do gain recognition as municipal departmental records are updated and revised (land title, billing collections, etc.). A few studies have investigated engagement between the state and informal settlements (Opel, 2000; Sethuraman, 1981). The sprawling informal settlements of Dhaka, Karachi, and Mumbai (home to the largest of the region's slums, *Dharavi*) face common challenges in accessing state services (Reza, 2003; Hasan, 2002; Islam, 2005). But each community's struggles for infrastructure and human development continue well beyond initial state engagement, as will be discussed later in this dissertation.

Informal settlements are becoming overcrowded and in the absence of services, a growing number of informal sector workers are living in the streets (AM, 2012). The homelessness of these 'pavement dwellers' is related to a number of factors, other than lack of space. These individuals are stigmatized, treated as second-class citizens, and excluded from urban development agendas and services (SDI, 2010; Jain, 1999; Laquian, 2004). Many of them also come from ethnic and religious minorities that are outside of the kinship and familial circles that link rural villages with urban informal settlements. The highly mobile and transient nature of this group makes their examination in policy and program terms difficult, and this is why I am so interested in examining service delivery to informal settlements, given the economic benefits they bring to South Asia's mega cities.

1.4 Research Questions

Within the context of the research problem and the aforementioned policy constraints to service delivery, my study addresses the following research questions:

- Given this dissertation's understanding of informality, how successful have inhabitants/representatives of informal settlements been in obtaining specific services from state functionaries?

- Evidence from an earlier study revealed serious contradictions between upper- and lower-tier state actors (Shaheen, F.H, 2009) and a deplorable response to meet the needs of informal settlements. In light of these incongruities, have the latter's needs been met by engaging non-state actors and/or lower-tier state functionaries?
- What implications do dynamics between informal settlements, non-state actors and lower-tier state functionaries have for service delivery, sustainability and autonomous models of local governance across the region's mega cities?

1.5 Dissertation Structure

The dissertation is divided into seven short chapters, with additional information included in the appendix. This introductory chapter has provided an overview of the research context and questions, as well as a discussion of informality, the informal sector, and informal settlements. The political economy of informality is critical to appreciating the policy context and the study's purpose. Acceptance of structural adjustment based on neoliberalism, free trade thinking, and 'anti-agricultural' policies has driven waves of rural labourers to urban centres, many of whom are unable find homes and are forced to live on the streets, close to their places of employment.

The second chapter presents the theoretical framework of the study. It begins with an overview of the inter-disciplinary literature on urban research from the fields of public administration, critical political economy, and development studies. Each discipline presents different perspectives on service delivery in urban settings. Unfortunately, the dominant perspectives tend to emerge from Western or Eurocentric understandings of development and the perceived 'optimal function' of the developmental state. Although most perspectives highlight the human development needs of informal settlements, they stop short of addressing the frameworks or 'arrangements' necessary to ensuring equitable service delivery. The second chapter also presents a critical discussion of neoliberalism and its relationship with the informal sector.

The third chapter explains the study's methodology, which is based on a history of cross-country research approaches in developing country and municipal contexts. In exploring the policy history of each mega city, I researched the national, sub-national, municipal, and institutional settings that influence service delivery, and drew on these data to gain insights into broader policies and programs. The third chapter also explains the comparative framework that guided my qualitative approach.

The fourth, fifth, and sixth chapters present the research findings from each of the three megacities, comparing country and municipal histories, institutional settings, and water and sanitation service-delivery contexts. These chapters explore the shared colonial legacies and provide primary and secondary evidence for each context, using the five comparator variables. Two case studies are presented for each mega city, clarifying the experiences of non-state actors in facilitating service delivery extension to communities.

The seventh and final chapter presents the analysis, conclusions, and policy implications for future research. It explores relationships between upper and lower tier state functionaries and non-state actors and clarifies the effects of colonialism on state structures and bureaucratic stratification. Finally, it summarizes the regional challenges to neoliberal policies and top-down development approaches, along with institutional solutions and formalized roles for non-state actors. Let us now turn to an overview of prominent themes which emerge from my research.

1.5.1 Emerging themes

A number of key findings and prominent themes respond to the research questions and engage broader discussions on informal settlements (and the informal sector), the colonial legacy (on urban development), neoliberalism's influence (particularly at the municipal level), service delivery as facilitated by non-state actors and autonomous modes of municipal government. First, there is an obvious gap between the will and objectives of upper tier state actors and the human development needs of informal settlements across the region's mega cities. Second, the abilities of autonomous, lower tier state actors are evidenced as being better suited to engage civil society to enable human development, as compared to their upper tier state counterparts. Finally, mobilized informal settlements (CBOs) are capable of moving the state (specifically lower tiers) – corruption and all notwithstanding – to respond to their service delivery needs. CBOs have been successful in ensuring that services are extended to informal settlements, with some level of engagement with lower-tier state actors.

My analysis of comparator variables and case study outcome elaborates on these findings through five themes of importance in terms of service delivery to informal settlements in mega cities in South Asia, and by extension to developing countries: (1) Precariousness of informal settlements; (2) Colonial legacy in urbanization and post-colonial realities; (3) Success and failures of community based mobilization; (4)

Need for decentralized governance models; and (5) The growing rural-urban divide and the absent state. I will now provide a brief overview of these themes.

The most pronounced, reoccurring finding from my dissertation is the perseverance of informal sector labour and precariousness of informal settlements. Despite the prevalence of hazardous, precarious, low-wage working conditions, informal sector labourers have continued to carve out value-adding economic niches in each mega city economy. The findings reveal the economic benefits provided by the informal sector despite neglect by state actors.

The research findings also point to the impact of the colonial legacy and neoliberalism on policy failures at multiple levels of government that have over time, weakened service delivery machinery. My interdisciplinary research points to the need to reframe policy and program development by upper and lower tier actors to both overcome the structural impact of the colonial legacy, and to move away from a strict market orientation. Evidence from each of the mega city service delivery contexts reveals tensions between upper and lower tier state and non-state actors. The level of neglect demonstrated by elected officials and other upper tier state actors for informal settlements highlights the polarizing impact of the colonial legacy on the developing state.

In light of these policy failures, my research highlights the role that civil society actors, particularly community-based organizations (CBOs), play in mobilizing informal settlements and linking them with the service delivery capacities of lower tier water and sanitation authorities. Evidence from comparative analysis reveals the relationship between mobilized communities, lower tier state engagement and positive service delivery outcomes. Evidence also reveals the constraints of political interference, unsustainable capital projects and absent intergovernmental support. These findings challenge the mainstream development literature and counters calls for increased privatization.

Evidence from my study also supports the need for decentralized governance models and institutional strengthening, which echo the recommendations of public administration and critical management researchers on increasing public utility autonomy, and engagement of non-state actors (which is accompanied by transparent frameworks). One example is the success of Dhaka's WASA reforms, as profiled in the case studies, which points to the expanded reach of transparent, departmental cooperation with non-state actors. This is in contrast to the corruption that plagues the works department in Mumbai and weakens the departmental mandates of the KWSB in Karachi. My research

highlights grassroots engagement of lower tier state actors, which are often hidden in community based research. In contrast to the literature, my evidence points to the benefits of accountability and transparency frameworks, established through formalized engagement between state and non-state actors at the lowest tiers of state and society.

Finally, my research points to the growing rural-urban divide because of the spread of neoliberal policies and a general absence of state support for informal settlements. In order to reverse the overwhelming tide of unemployed rural workers to urban centers, there is an urgent need for the state to invest in the agricultural sector, resuscitate rural economies and balance the redistribution of wealth across polarized segments of urban society⁷. The continued failure of upper tiers of the state to commit to such policies will only permit the continued social and economic polarization of rural and urban society, to the detriment of all.

My research points to the need to enable, empower and extend the reach of the lower tiers of the state, in partnership with representative community based organizations (CBOs). Formalized arrangements between lower tier state and non-state actors can counterbalance the poorly formulated development policies of upper tier state actors. Once communities are engaged by lower tier state actors as partners in service delivery and development, the surplus that is being lost to corruption will be stopped and resources re-invested in community service delivery models. These solutions are not elaborated upon in the literature nor are they linked to policy frameworks in so far as mega cities are concerned. My research insists on the inclusion of non-state actors (NGOs and CBOs) in the development agenda for informal settlements as integral actors in mega cities. Such measures will elevate the profile of local service delivery knowledge and enable the sustainable extension of services to informal settlements. Such a shift in resource allocation will also counter the dominant forms of market inspired, top-down urban development approaches by placing the needs of communities and people, before those of

⁷ Limited efforts have been made at the provincial level, at least in Punjab and to a lesser extent Sindh; where capacity building cells have been created in the planning and development departments to build governance and planning capacity in small and medium sized cities in Punjab and Sindh. While such efforts will require persistent, long term resource investments; the creation of these units within each province's planning and development departments is evidence of the policy recognition to alleviate pressure from the nation's two largest cities, Lahore and Karachi.

markets and profits to offset the trajectory of neoliberalism. Such a shift will also counter balance elite power and expose the stranglehold of corrupt state actors and criminal groups on public goods and resources. Closing these gaps in governance and urban service delivery management is central to my conclusions as market failures and social polarization continue to characterize the three mega cities in South Asia.

2 Literature Streams and Divides

My interdisciplinary literature review draws on contributions from the fields of public administration, critical political economy, and development studies.⁸ Taken separately, these disciplines do not fully engage the complexities surrounding administrative development policies, especially engagement of the informal sector (Conticini, 2008). By situating my research within these three disciplines, I have been able to clearly define specific enabling factors of equitable urban policy development and implementation that influence positive service delivery outcomes (Andrews, 2010). Prior to exploring the interdisciplinary literature, I will briefly outline the linkages between the literatures and the dissertation research question.

First, because my research focuses on the service delivery arrangements that engage informal settlements, the role of the lower tiers of the state is central to my study. Despite the growth of urban centres, urban research has a noticeable ‘intergovernmental gap’: most studies focus on national and sub-national dynamics; almost no studies have focused on municipal resource allocations, implementation or sustainability. Therefore, I have used comparative public administration research to contrast the roles of the upper and lower tiers of the state in ‘enabling’ or ‘disabling’ service delivery to informal settlements. Urban ‘service delivery’ and ‘support’ are inextricably tied to the condition of mega city government policies and programs (the implementing bureaucracy) so it is valuable to examine the comparative public administration literature. The United Nations (UN) continues to document the relentless growth of mega cities, corridors and regions across the Global South (UNDP, 2013). Cross country researchers have documented the slow incorporation of the urban policy research agenda across developing municipalities (Stren, 1994). Analysis also reveals the accelerating growth of South Asia’s urban areas well beyond previous forecasts (Brookings, 2012). Clearly, urban policy development has been out paced by the complex challenges that face mega cities. For instance, the number of inhabitants of informal settlements is growing globally by ten percent per annum (UN

⁸ Relevant contributions to the literature about South Asia’s urban informal sector can also be found in other disciplines, e.g., urban planning, sociology. In light of the policy focus, I include these contributions as part of the three streams (planning with public administration, sociology as part of development studies, etc.). This process will help clarify the relationships between state and non-state actors as outlined above.

Habitat, 2011). Nevertheless, there is a persistent lack of information regarding the challenges of extending services to informal settlements and surging mega city populations (Flood, 1997; Davis, 2008). South Asian policy analysts and development researchers have repeatedly referred to this trend as unmanageable, given the current patterns of migration, resource allocations, governance, and unsustainable development (MUH HDC, 2011; CUS, 2010; UNDP, 2010). This growing and yet marginalized segment of urban society is in urgent need of policies and programs to address the lack of human development (ADB, 2008; MUH HDC, 1999).

Second, because power relations determine the distribution of resources among state and non-state service delivery providers, perspectives from critical political economy literature are important (Mainzer, 1994). South Asia's centralized planning and resource disbursement models share the organizational impressions of colonial rule, while at the same time, post-colonial administrative structures cannot be considered homogenous (Englebert, 2000). This is especially true given the inequitable development of South Asia's mega cities. State-influenced processes of rural displacement, urbanization, mechanization, and the green revolution have all contributed to the migration of the rural poor to the urban fringe, to the benefit of capitalist elites (Amin, 2011). While lower tier state actors are overwhelmed by population growth, one cannot ignore the entrenched interests of upper tier state actors. The urban poor are simply treated as a necessary by-product of development. As such, my study is sensitive to the class divisions and power relations across state and informal settlements as well as the capitalist modes of development.

Third, the prominent role of non-state actors is important to the research question, given their success in extending service delivery to informal settlements. In the absence of an overseeing, transparent, accountable and coordinating state; non-state actors experience success in isolated, discontinuous contexts. The documentation of such cases has been captured throughout the development studies literature. Some researchers have analyzed the role of donors, contrasting mega project multilateral donors with sector-specific funding agencies (Cohen, M., 2006).⁹ Researchers have also categorized the

⁹ Contemporary development studies research on multilateral institutions, fuelled by the anti-globalization movement, has focused mainly on the International Monetary Fund, the World Bank, and more recently the World Trade Organization. These studies have identified the

types of civil society actors, outlining key differences in function, capability, capacity, and proximity to recipient communities (Sansom, 2006). This body of literature is characterized by a growing representation of South-based perspectives and critiques of Northern assumptions and interests in service delivery. Specific case studies that document the engagement of informal settlements by non-state actors provide valuable perspectives for analysis.¹⁰ Specifically, the community-networked, South-based non-state actor is more likely to engage informal settlements and facilitated interactions with state actors. Unfortunately, few studies about alternative models of service delivery extension to informal settlements have focused on the required role and responsibility of the state. Research findings and analyses from this field elucidate the appropriate arrangements between non-state and state actors, given the efforts of non-state actors in facilitating service delivery.

Situating my research within these three bodies of literature provides a more comprehensive policy context for the examination of service delivery to informal settlements. Taken together, the displacement, marginalization and deprivation of informal settlements are examined as part of a social and political process. The driver of this process is a polarized state that passively accepts human deprivation and inefficient service delivery despite the emergence of alternative models. My analysis clarifies the potential of service delivery extension to informal settlements by adjacent state actors with appropriate incentives for engagement. The following discussion reviews specific contributions from each of the three disciplines to the study of informal settlements in urban contexts. This review is followed by a summary of common themes that affect informal settlement policy in urban settings and their relevance to mega-city governance in South Asia. This summary also establishes a framework for the subsequent chapter, which elaborates on the dissertation methodology. Let us now turn to the first body of literature, comparative public administration.

shortcomings of these global donors and to a limited extent, the marginalized role of various United Nations departments and programs. At a smaller scale, there has been some discussion of the role played by foreign governments and funding agencies, but discussions remain at the national scale of study. Furthermore, they are concerned with advocacy and raising awareness, rather than actual service delivery. Sector-specific funding efforts and donor activities are eclipsed by larger players. The expertise of sector-specific donors requires understanding, as they do not seek to displace local government machinery but rather resuscitate it, so that their work may continue alongside it.

¹⁰ The work of civil society organizations extending services to informal settlements is so valuable that actors within each of the mega-cities are approached as part of the methodology to profile positive and negative outcomes of service-delivery extension efforts.

2.1 Comparative Public Administration

A review of the Comparative Public Administration (CPA) literature revealed ample analysis of the role of the bureaucracy in developing policy, but limited analysis of the bureaucracy in implementing policy (particularly the program level within large cities). Research highlights how the 'administration' of services by municipalities in developing countries has been irrevocably affected by globalization and Neoliberalism (UNDP, 2000).¹¹ The 'context-less nature' of public administration in developing states continues to leave them vulnerable to a range of externally and internally driven forces (Haque, 1996). The combination of exogenous forces (market pressure, state restructuring, foreign policy dictates) and endogenous factors (weak governance, kinship-based politics, elitist interests, ethnic discord, patronage-based policies and corruption) has inhibited the maturation of indigenous state machinery (Laquian, 2006). The under representation of these challenges in the CPA literature, which focuses on political change rather than administrative reform, has constrained progression within the literature as a whole (Farazmand, 2007).¹² The first half of this subsection explores the history of CPA and the response. The second half summarizes differences between upper tier and lower tier actors in service delivery.

2.1.1 Developments in CPA research and analysis

The last few decades of municipal policy research have benefitted from a number of comparative initiatives linking Northern and Southern institutions. The Harvard School's Woodrow Wilson initiative spawned a program of comparative urban study in the 1980s, publishing research across the Global South. In the early 1990s, a comparative urban research project was established at the University of Toronto, which profiled the field work of state and non-state actors in large cities across the Global

¹¹ 'Administration' in the context of developing countries refers to the policy, resource, and program delivery of state to society (Umeh and Andranovich, 2005, Batley and Larbi, 2005). I will elaborate more on this in my discussion of upper and lower tiers of state and society and their engagement of informal settlements. I introduce the dynamic between upper and lower tiers here, to highlight the gap that has persisted in the literature regarding analysis on policies vs. programs. There is very little research, analysis or recommendations on improving administrative processes across front line programs, against a landscape of social and political variables. My study contributes to informing a research agenda regarding this gap.

¹² Ironically, the absence of policy-based research in the public management research stream has been replaced with concern for privatization and the removal of policy power from the state sphere. Solutions are being developed without fully understanding the context within which the existing systems of governance have failed. The specifics and enabling factors of 'open institutions' are underrepresented in the literature (Goldsmith, 2007).

South. Findings from these city-based institutions has highlighted the opaque nature of municipal data as well as the tendency of public administration scholarship to view cities simply as economic engines of growth rather than as places of habitation (Stren et al., 1994). This research has been validated by coordinated data analysis with partner institutions across the Global South, many of which have relied on United Nations programs, sector specific donors, and other multilateral agencies (Stren et al., 1994). I will return to the contributions of these South-based institutions later, but it is important to note that these analyses indicate that mega-city leadership is driven by economic, rather than social, priorities. A policy agenda focused on economic growth continues to neglect administrative systems that are needed to address the social concerns of housing, infrastructure, and basic services. As such, linkages between capitalistic industrialization, economic growth and pro poor outcomes are poorly understood (Shah and Batley, 2009).

The response of state policymakers to research about urban challenges has been insufficient, due to a number of exogenous and endogenous factors. Exogenous factors beyond the control of the state include the residual impressions of colonialism, state restructuring, market-centred development, and neoliberal policies. Simultaneously, administrative development has been outpaced by rural-to-urban migration and economic restructuring (Stren, 1996). The resulting institutional 'path dependency' has distracted state actors and institutions from developing and defining truly sovereign policies and programs, particularly at local levels of government (Farazmand, 2002; Dwivedi, 1989). Endogenous forces such as weak governance frameworks and a lack of transparency and accountability have constrained institutional development and neutralized capacity development among frontline, municipal departments. Discussions around 'good' and 'bad' governance have neglected the examination of program outcomes (Brinkerhoff and Goldsmith, 2004). The concentration of power within central 'elite' departments of upper tier policy circles has prevented any real sustained flow of resources to lower tier actors and implementing institutions (Farazmand, 1999). Concurrent research agendas have also been framed by Western understandings and models, further constraining a sovereign agenda of policy development by local policy actors (Umeh and Andranovich, 2005). For example, there has been little evidence of nationally-mandated cooperation between municipalities to face these challenges. Caught between national interests, day-to-day operational realities and strategic challenges, many of the shared challenges facing mega-city administrations across the region remain unaddressed across Asia in delivery of basic services (Chaudhury and Devarajan, 2006).

Public administration and development research has also been insufficient, due to constraints of focus and scale. Research has continued to focus on national and provincial policy changes and administrative developments in the wake of electoral patterns and policy activism and has not engaged the relationships of state-non-state providers at the municipal level (Farazmand, 2001; Moran, 2006; Batley and Larbi, 2005). Multilateral institutions and transnational INGO research focuses on high level top down policy programs, where they have capacity, but perhaps not the relevant state actors (UNDP, 2000). Other streams deal mainly with public management and economics (Madhoo, 2007). Some governance studies have examined the preconditions of decentralization (Sellers and Lidstrom, 2008). However, few studies have focused on how policies and programs affect service delivery to informal settlements in mega cities (Khan, 1991). There are few proposals regarding intergovernmental policy reforms that will ensure effective urban government (Shami, 2001; Stren, 2001). Intergovernmental research has revealed that federal and provincial interference in urban affairs has negatively affected the sustainability of municipal service delivery (Reza, 2003; Hasan, 2002). This trend is repeated across as most urban policy studies focus on describing interests rather than engaging institutional analysis.

The origins of CPA reveal limitations in the progression, agenda, and approach to studying municipal policy challenges across the Global South. Initial CPA research approaches were rooted largely in replicating the structures, institutions and processes of Weberian governments. These approaches failed to take into account the complex interests that converge on municipal settings where market interactions and state processes are simultaneously in conflict and cooperation (Farazmand, 2010). Subramaniam's critical review of Western approaches to administrative development in the Third World, argued that many of the constraints can be traced to colonialism and neo-colonial pressure during the post-Cold War period (Subramaniam, 1998). Most of the scholarly work conducted in the 1950s and 1960s focused on the effects of colonialism as well as the political, social, and historical facets of development that restricted economic growth. Little attention was paid to bureaucracies, let alone local government institutions or service delivery machinery in rapidly urbanizing centres. In the 1960s and 1970s, dependency theories built on this work. These movements followed neo-Marxist approaches and attributed the poor situation in the developing world to colonial rule and its subservient state structures. In the 1980s, development administration research was linked with public administration research in response to dependency theorists. Riggs and Heady illustrated how administrative systems are linked with complex social and political systems (Riggs, 1989; Heady, 1980). Another set of development administration research emerged, with the intent of readying developing economies for

the pressures of economic globalization (Farazmand, 2004). This work would inform upper tier state policy makers on free market policies following the end of the Cold War. The 2000's has seen an era of capacity building take hold at the lower tiers, which are struggling to make cities more self-sufficient and self-reliant (Gupta and Rayadurgan, 2008). In all cases, very little CPA research has focused on under-developed lower tier institutions and inherent policy frameworks, beyond case studies (Gershenson, 1998).

Preliminary research from urban Pakistan revealed sharp differences between upper and lower tiers of the state in capability and capacity to extend services to the informal sector (Shaheen, 2009). The key finding of Pakistan-based research was the differential attitude between upper and lower tiers of the state. Research also revealed sharp differences between upper and lower tier non-state actors. Where isolated successes in service delivery extension were realized, lower tier NGOs were present in facilitating and mobilizing CBOs. Critical analyses which hold the state accountable for the delivery of basic services recognizes the existence of power relations and much needed reforms. In policy terms, the upper tiers of the state are concerned with development and formulation of policies that define the capabilities of mega city administrations. 'Upper tiers' include departments and offices at the national (and to some extent, provincial) level of government that are focused on setting agendas, formulating and developing policies, as determined by the political factors and administrations of the day. Budget decisions and resource allocations are developed at this level for lower tier departments. However, all too often are such policies developed without addressing implementation and resource requirements at the lower tiers. Upper tier departments are characterized by access to resources, formalized cadres of upward-aspiring officers, proximity to budget funding, hierarchical networks, alignment with centralized capital budget resources and 'gate keeper' expert status with multilateral institutions. The networks of relationships at this level of government operate through direct and indirect channels to ensure a critical level of budgetary roles and responsibilities. This tier is technically unfamiliar with real-life conditions and specific interventions to alleviate poverty. Nevertheless, they leverage political budgetary aims and navigate client relations with politically aligned departments, enabling the release of funds to specific areas of government activity without requiring much accountability for performance or outcomes.

The attitude of these upper tiers of the state is reminiscent of colonial rule, characterized by strong central governments with an elite cadre of officers that are similar in rank and profile. The political and economic elite of the upper tiers include high-ranking officials who enjoy privilege and position within

society. Groomed and bred through elite schools (also institutional remnants from the colonial era), they do not mix with, nor are they infiltrated by, outsiders. Given their position within society as well as their profile, they occupy a strata that is considerably better off than most. Based on informant interviews and a critical review of the policy and development literature, the upper tiers are merely concerned with navigating periods of political change, rather than improving public service delivery. Their knowledge of loopholes across departmental policies and procedures allows them to informally engage elites from non-state sectors. The result is the exchange of favors and often the appropriation of public assets for their own benefit, mainly in the form of unallocated tracts of land (Subramanian, 1998). Their circles of influence include the wealthy elite from economic and business circles. The client and patronage cycle perpetuates itself within these elite circles along with the incentives to maintain positions of power and influence. Issues of relevance to the public service and the betterment of society are neglected, as reflected by inequitable modes of government and service delivery (Bourdieu, 1998). The effects of policy agenda setting, formulation and development at the upper tiers has immediate impacts on implementation at the lower tiers of government.

Lower tiers of the state are defined as those at the level of local government (and to a limited extent, provincial government). In contrast to the upper tier, lower tier government departments and agencies are largely responsible for operating and maintaining existing infrastructure and state-run programs. Lower tier actors are responsible for the service delivery infrastructure of mega cities and reside in municipal departments. Isolated from the policy making environment, these actors staff the offices of the urban cities of South Asia. Their budgets are understated and underfunded, with limited support from upper tiers of the state. Research on Karachi revealed that the local government was fraught with structural challenges (poor intergovernmental relations, accountability and transparency frameworks), and ill-conceived extensions of service delivery policies. Lower tier officers are professionals of varying levels of capacity and capability. Their departments are often mandated with an unrealistic set of responsibilities with little coordination with adjacent institutions. In most cases, upper tiers have not devolved any authority to lower tiers (local government) to engage in revenue generation or cost-recovery programs. Although the upper tier acts as a guide and inform the responsibilities of municipal government, the lower tiers are provided with limited support to implement and fulfill those mandates (Hasan, 2008; Islam, 2004; Van Horen, 2004). Chronic problems such as disrepair and insufficient performance are handled using emergency funds and politically motivated rehabilitation efforts. When policy outcomes are positive, upper tier budget allocations are justified without any provision for

sustaining operational and maintenance concerns at the frontlines. In other words, if a program is delivered successfully, upper tier departments take credit; chronic failures of program delivery (and all related problems) are shouldered by underfunded lower tier departments.

Despite their marginalized role, mounting responsibilities and frustrating operating context; lower tier departments possess a wealth of operational knowledge and expertise about the actual urban environment, which has been leveraged by non-state actors. Many urban policy settings across the Global South reveal lower tier support for non-state research. Although lower tier state documents will be cited in academic publications, the formal policy development process rarely engages these experts as part of the overall planning process. Furthermore, upper tier policy development will rarely engage lower tier counterparts in the design of 'poverty alleviation programs'. Non-state actors (private and non-government organizations) have learned how to leverage this critical mass of lower tier knowledge. Private sector solutions along with community led development initiatives are sometimes designed and built with some level of input from lower tier actors. Lower tier state actors are motivated to engage these non-state actors as it provides them with an opportunity to demonstrate technocratic merit. In many mega cities, local media outlets (and upper tier non-state actors) are all too eager to lay blame for ineffective service operation on lower tier departments. Lower tier state actors are more willing to engage familiar non-state actors who recognize their skills and knowledge. Their forums provide lower tier state actors with a voice and opportunity to present their perspectives and experience on service delivery. In return, these lower tier state actors facilitate non-state efforts, alternative service delivery models and pilot projects. Just as it is important to differentiate between upper and lower tiers of the state, it is important to differentiate between upper and lower tiers of non-state actors, based on their mandates. I will now turn to a review of the CPA literature regarding these groups.

2.1.2 Civil Society, the City and the Global South

Although lower tier actors remain understudied, recent CPA contributions have focused on non-state actors. The contributions of urban policy research and advocacy institutions have been documented across Latin America, Asia, and the Middle East (Shami, 2001; Stren, 2001). Management experts have also promoted partnerships with non-state actors as a solution to poor government performance. Research about inputs to positive service delivery has also explored the relationships between state and non-state actors with regard to critical services such as water supply and electricity (Rondinelli, 1991). The evolution of non-state actors in South Asia has been marked by periods of cooperation and

competition with state actors (Nair, 2011). The lack of collaboration in policy planning is alarming despite the significance of non-state contributions (Batley, 2006). To this end, public administration scholars have developed typologies of state and non-state engagement (Stein, 1993; Sansom, 2006; Batley and Larbi, 2005). Contributions outline 'desirable' relationships between state and non-state actors in specific contexts, which are urgently needed in larger, denser mega cities (Sansom, 2011). For example, mega-city administrators need to appreciate the appropriate policy settings for the 'scaling up' vs. 'replication' of alternative modes of service delivery and their enabling frameworks (Brinkerhoff, 1999). 'Scaling up' may be beneficial where increasing the volume of services delivered may be appropriate. However, where capital funds and maintenance costs present a constraint, 'replication' may be more appropriate. In the latter case, service delivery mechanisms (a pump or toilet block) might be created and maintained in a separate community. Clearly, the social and technical features of such options require a series of policy steps prior to being realized. The frameworks that enable the realization of such arrangements will be explored in more detail in this dissertation. In other words, how can utility management staff and residents of informal settlements cooperate to maintain public and community based service delivery infrastructure (pumps, pipes, billing systems).

South-based contributions to the body of CPA literature tend to emphasize the roles and responsibilities of local government actors in managing service delivery discrepancies between various groups (Batley and Larbi, 2005). Research recognizes the need for fragile states to ensure that non-state alternatives do not delegitimize state processes (Batley and McLoughlin, 2010). Accountability is central to preserving the role of the state (Cavill and Sohail, 2004). In an effort to inform administrative and management policies on urban service delivery, my research will assess the enabling political and administrative settings in the various service contexts, in contrast to the predominant top-down approach to policy development. The upper tiers of the state have influenced the trajectory of economic development to the detriment of local governments. The lower tiers of the state must be enabled to manage the operational realities of social polarization (Shaheen, 2009; Laquian, 2006). My research will inform the role of state and actors and cooperation with non-state actors to allow local government reforms and programs to be more equitably delivered (Brennan-Galuw, 2004; Siddiqui et al., 2004; Hart and Mitlin, 1996). In order to ensure that services are provided in a depoliticized, equitable, service-delivery focused manner, a more participatory approach that is engaging of local values and behaviours will be required (Zaidi, 2008; Umeh and Andranovich, 2004).

Evidence from administrative and management studies point to the constraints that are placed on lower tier actors at the 'bottom of the pyramid' (Prahalad, 2011). Policy discussions on autonomy change from within and decentralization are constrained by graft and corruption (Laquian, 2005; Khan, 1991). The Riggs-Brainbanti debate encapsulates the state of Third-World institutions and the growth of bureaucracy (Ahmed, 2008). Donor funding patterns have also influenced policy priorities and program decision making within a prefectural bureaucracy (Aranaral, 2008; Ahmed, 2008). While Neoliberalism has traumatized and restructured the developing state, it has also irrevocably affected the social and economic balance of urban and rural development across South Asia and the Global South. I now turn to this issue in the next section of this chapter.

2.2 Critical Political Economy

Many critiques of Neoliberalism emerge from South Asia, as inequality increases and the plight of the poor continues to be seen as buoying the risk leveraged by the wealthy elite. Recent critiques of South Asia's political economy have made powerful contributions to the post-colonial literature. For example, the seminal works of Said and Bhabha have contributed to post-structuralist understanding of the 'postcolonial'. Similarly, past and recent scholarship has explored imperialism and nationalism as by-products of colonial domination and anti-colonial resistance and within the context of social, political, and cultural differences across South Asia (Alavi, 1998; Ahmad, 2007; Amin-Khan, 2012). Critical theorists have rigorously analyzed globalization and the impact of neoliberal designs on financial and economic power balances (Amin, 2011; Haque, 2001). Critical approaches (concerned with national levels of activity) view public management as a by-product of colonialism, where administrative systems are dominated by bureaucrats and an upper class 'salariat' among other interest groups (Zafarullah and Haque, 1998; Alavi, 2002). Some approaches emphasize the different circumstances under which state formation has taken place across the developing world and as such, argue that any analysis which employs structures or policy instruments inherent to 'modern western states' is limited. The hegemony imposed by elites, dichotomous to the will and social organization of the people, cannot go unchallenged through any analytical lens. In order to account for this limitation, social movements and other non-state actors are focussed on. Recent studies have focused on resistance and urban social movements, but have neglected the different roles of state actors and institutions (Gills, 2001; McFarlane, 2008). This subsection reviews South Asian perspectives on urban development and administration from a critical political economy perspective. I begin with a brief history of South Asia's

urban 'disruption' under colonial rule, followed by a summary of the resulting urban administrative context across the three countries of study. Next, I outline the current framework of challenges facing urban development and administrative change, specifically in terms of migratory labor inflows and financial capital outflows. The section concludes with a critical examination of the various non-state actors involved in the service delivery supply chain and their role in engaging state actors to extend service delivery to the informal sector.

The lack of critical research about mega-city development and densification is related to the genesis of critical political economy research across the Global South. Urban politics, for example, are not one dimensional and require comparative analysis (Mazinoshou, 1985). First, researchers have not unpacked the different tiers of the bureaucracy and agents of the state in post-colonial urban contexts. Few researchers have examined 'Third Worldism' and the impact of its decline on urban settings, socialist urban-planning experiments, or the dissolution of these experiments in the face of spreading imperialism (Prashad, V., 2010). Second, critical research has tended to focus on national political events, interests, and ideas – with little reference to their deleterious effects within large urban centres (Ahmed, 2000). Some researchers have referred to the international and national implications of globalization on the nation-state and citizenry, highlighting the polarization of power structures globally and even regionally (Amin, 2011; Prashad, 2007). These forces have a clear and direct impact on large urban centres across South Asia. A brief history of the events that characterized pre-colonialism and colonialism in the region's urban centres is necessary to contextualize the emergence of socio-economic polarization and the resulting social resistance. This period can be divided into two phases, during which cities are directly and indirectly affected by colonial rule and policies.

2.2.1 Periods of colonial rule

The initial phase of colonization resulted in the dismantling of the indigenous machinery that upheld political and economic activity across South Asia's urban centres. Pre-colonial urban societies were characterized by a separation between nobility/rulers and merchants/tradesman. Pre-colonial markets were underpinned by multi-talented functionaries and guilds of workers. This kind of system flourished prior to and after the discovery of the Indian–European trade route. During the periods of colonial rule, two objectives were achieved. Initially, there was the eradication of the remains of Asiatic modes of governance. Through the progression of colonial rule, a number of processes were entrenched that

contributed to the spread of capitalism and Neoliberalism (Alavi, 2004; Khan, 1999). I will briefly discuss these two phases and their effect on urban development.

The first phase of colonial rule resulted in the transfer of wealth from India's land revenue, resulting in the pauperization of farmers during periods of famine. This transfer of wealth to foreign nobility ended the cycle of reinvestment and circulation of wealth in the urban economy, thereby depriving local markets and merchants of resources to sustain them. The result was older cities such as Dhaka, contracting in growth, when political power shifted to Kolkata (Siddiqui et al., 2000). The Industrial Revolution of the early 1700s, led to the export of wealth to colonial heartlands, leaving local textile industries decimated (Alavi, 1996). As local industrial bases changed, so did the revenues that sustained local governments and the networks of *panchayats* that facilitated the participation of neighbourhoods and otherwise disconnected communities in the functioning of the cities. Industrialization and patterns of reinvestment perpetuated the cycle of inequity in rural vs. urban development, which led to the second phase of colonial impact on urban development.

The second phase of colonial rule targeted the subcontinent's rural heartlands, with export-driven industries strengthened by the economic development of urban centres. In the 1800s, British capital was invested in Indian industries such as plantations and extractive sectors, and those sectors saw growth and drove exports. Local 'coolies' were employed at serf-like wage levels to provide labour for these undertakings (Gadgil, 1973). British interests were then set to increase the commercialized exports of cotton through infrastructure, facilitated by canal irrigation as well the construction of the railways in the late 1800s. Industry continued to thrive in rural areas and export-led growth dominated the rural landscape. As agriculture became more subordinate, the peasantry were inevitably reduced to landless labourers. These laborers began searching and migrating for employment and populated the decaying city of Dhaka, which had already lost a substantial amount of its population to deterioration and the devastating shifts of investment during the previous century. Colonial policies had succeeded in establishing the foundations of the export led growth model. This model of development would continue to drive urban economic growth and the spread of market based decision making. Export led growth has also turned state concerns away from feeding domestic markets and sustaining supply chain and demand cycles. For example, ten percent of India's grain is lost to rot while another ten percent to pilferage (CUTS, 2000). Each of the three nations has struggled with development agendas in the shadow of this colonial legacy.

Urbanization accelerated across South Asia during the transition to Neoliberalism inspired market led growth. Bangladesh's urban centres swelled with economic activity following industrialization, with the highest levels of rural-to-urban migration reached in Dhaka. India and Pakistan saw the disappearance of older class groups and the creation of new ones, which contributed to the formation of the urban elite. The educated, industrialized, and financial hub of Mumbai quickly became the economic centre of Indian capitalism. Ethnic communities that exploited the flows of trade formed the new bourgeoisie, founded on the cotton textile industry. Foreign trained, upward aspiring professionals were trained to sustain subservient colonial era state hierarchies and develop provincial laws and municipal bylaws to govern these cities. In Pakistan, a professionalized bureaucracy was dominated by the military bureaucratic oligarchy and larger landowners. India's metropolitan industries formed a new dependency on foreign capital through agreements about technology that sustained the competitive edge of industry. Pakistan and Bangladesh's metropolises have grown dependent on the presence of multinationals (Alavi, 1998). The coordinated relocation and departure of wealth from the region during colonial rule continued with Neoliberalism. The acceleration of globalized financial flows and transnational corporate activities is also referred to as neo-colonialism (Ahmad, 1992; Amin, 2011). Market led growth has not been matched by improved capacity at the lower tiers of the state.

The polarization of power between upper and lower tiers is rooted in colonial era policies. In the 17th century, the presidency towns of the East India Company were separated into 'White' and 'Black'. While the former experienced well maintained infrastructure and services, the latter were left in squalor. The 1800s saw the piloting of local government structures (courtesy of Lord Ripon's altruistic resolution, to prevent the spread of disease to White enclaves), but very little was implemented across India. In fact, command- and control-type approaches reminiscent of colonial rule characterized inter-governmental relations well beyond this period. For example, in Dhaka, it was quite common to have local concessions offered to legitimize authoritarian rule at the national level (Siddiqui et al., 2000). Central government power over municipal budgets, functions and council decisions have led to poor governance (Huque, 2001). In the late 1980s and 1990s, all municipalities in the three countries were superseded, resulting in stunted growth and development (Sivakumarakrishnan, 1999).

At present, most of South Asia's largest cities receive less than fifty percent of the GDP contributions required to maintain and sustain basic services and infrastructure including roads and transportation (ADB, 2010). The inequitable distribution of power that characterizes South Asia's economic and political

development explains the relative 'enslavement' of under-resourced, under-capacity lower tiers of the state by dominant upper tiers. Decisions such as increasing taxes and water rates, firing superfluous labour, and demolishing unauthorized construction are difficult for decentralized administrations, but not for a central government-appointed administrator (Siddiqui et al., 2000). Self-interest and the tone of indifference that characterizes upper tier actors has placed an irreversible drain on public finances and funding resources needed at the level of mega-city administrations.

2.2.2 Portrayal of Lower Tier State Actors in the Literature

Many critical theorists treat administrative machinery (the bureaucracy) as integral to the capitalist processes of wealth accumulation and the erosion of developing countries and cities. However, development researchers from across the Global South point to the limited attention that Marxists have given to the discussion of local government (Umeh and Andranovich, 2006; Farazmand, 2002; Heady, 1998). Limited but compelling evidence from across the Urban South points to sharp differences between lower and upper tiers of the state. One example of this is the dominant and disproportionate presence of development authorities within the municipal planning context. These authorities oversee regulatory planning, real estate development and housing and public works functions. Their policies bypass local authorities and ultimately, monopolize development decisions. The Karachi Development Authority (KDA)¹³, Dhaka Development Authority (RAJUK)¹⁴, and Mumbai Development Authority (MDA)¹⁵ are all provincial/state government entities whose development priorities supersede municipal offices and bylaws. I will examine the role of these development authorities against the institutional landscapes of each mega city in later chapters. National institutional landscapes aside, each of the

¹³ The KDA was established to replace the Karachi Improvement Trust and coordinate the sale of state owned land to private development. After being merged with the City District Government in 2002, it has now been reinstated under the jurisdiction of the provincial government (www.kda.gos.pk). The divergence between the institutional mandates of the KDA and KWSB have contributed to the poor state of infrastructure (Sohail and Ahmed, 2003). While the province subsidizes electricity to the KWSB, the KDA does not coordinate planning activities or support revenue recovery of the water utility, leaving it perpetually reliant on the province for financial assistance.

¹⁴ RAJUK was established to replace the Dhaka Improvement Trust and coordinate all development planning and the necessary controls. Their board includes several directors from the major service delivery departments including DWASA (www.rajukdhaka.gov.bd). However, their mandate did not address the multiple departments and duplications of bureaucracy that influence Dhaka's development landscape. Over time, planning has remained disorganized and real estate markets have outpaced state controls (Islam, 2005).

¹⁵ The MDA or MMRDA was established by the state government to direct infrastructure investment and promote the long term growth of Mumbai (www.mmrda.maharashtra.gov.in). However, over time it has become clear that housing continues to be unaffordable for the masses and insufficient infrastructure is being overwhelmed by population and polarization (Pinto, 2008).

development authorities allocate substantially more resources to the planning and capital investment of new private development rather than the public responsibilities of operations and maintenance of municipal infrastructure (Siddiqui, 2004). In the absence of municipal leadership from the province/state governments, development continues from the upper tiers of government while responsibilities for maintenance are downloaded to lower tier municipal departments without the necessary resources. Given the number of departments with overlapping mandates and misaligned reporting structures, ‘true devolution’ is non-existent across all South Asian jurisdictions. In any event, it is important to focus on the condition of the lower tiers of the state, and explore their capability and potential to engage the marginalized informal sector.

In terms of the nation state, pressure from insurmountable debt has compelled polarized state structures to accept Neoliberalism, encouraging capitalism to flourish while their own people suffer (Amin, 2011). Neoliberalism has also transformed multilateral institutions which once advocated on behalf of developing states (MGI, 2012; Cleaver, 2008).¹⁶ Neoliberal policy designs have led to policies and programs developed to encourage the growth of the consumer class, as advocated for by range of city development organizations and indicators (PWC, 2010). Despite a history of misplaced urban comparisons, there is little recognition of the need to orient policies more equitably across the city. Inequities in the informal sector are increasing in tandem with globalization (Harris-White, 2003). A country’s bond rating goes up with rising stock prices, signaling the accumulation of capital by fewer elites, the demise of traditional sectors and lower-paid occupations. Evidence reveals that many provincial and national leaders ignore these local concerns, even though many had previously served as mayors of large cities for long periods (Shivakumarakrishnan, 1999). While upper tier state actors express their economic interests outside formal policy processes¹⁷ lower tier functionaries are confined to local administrative settings and under-funded departments.

¹⁶ United Nations agencies are well-known for their support of developing country administrations by building capacity and developing consensus on important issues (e.g., UNCTAD – trade and development, UNEP – environmental issues, ILO – labour rights and work). Over time, the UN has been under-funded and marginalized politically, which has led to a multilateral void in terms of institutional support for developing country administrations.

¹⁷ Many upper tier actors also have land holdings, and appropriate public assets for their own gain. I will discuss this in later chapters.

In light of the politicized, patron-client relations wielded by upper tiers of the state and the subservient challenges faced by lower tier functionaries, local governments in these countries have not existed in the true elected and operational sense. A politicized and patron-client condition creates an environment of corruption and mal-governance that is beyond the control of departments that already suffer from underfunding. Ultimately, lower tier departments are tied to the people for their survival. Contemporary development research reveals that local-level agents of the state assume roles in facilitating civil-society led initiatives to engage the informal sector (Devas, 2005; Siddiqui et al., 2004). Frontline 'street-level bureaucrats' who straddle their capacities in both state and society can facilitate engagement with the informal sector by compelling state programs to engage marginalized groups. Within the context of these research findings, categorizing lower state functionaries as part of the capitalist 'bureaucracy' is problematic. The lower tiers of the state, which are the most directly engaged with the informal sector, are marginalized and treated as punishment posts (Cheema and Mohmand, 2003; Siddiqui, 2005). The agency of the local-level street bureaucrat needs to be treated separately from mainstream critical theories about the state.¹⁸

Based on the findings described above, the role of the street-level bureaucrat needs to be assessed in terms of capacity and capability. Research inspired by Habermas assesses (in light of accountability and transparency) how street-level bureaucrats influence program development and management as they deal with day-to-day cases (Piore, 2010; Brodtkin, 2008). In some developing countries, evidence suggests that agency cultures have adapted to changing organizational relationships, engaging 'client groups' using distinctly un-Weberian methods (Crook and Ayee, 2006; Wade 1992). There is a need to look at how street level policy is implemented through alternative management approaches (Brodtkin, 2011). Evidence from urban Pakistan (water/sanitation and housing/shelter) reveals the facilitating role that autonomous state and non-state actors¹⁹ play in replicating self-help development models from one community to another (Siddiqui, 2005; Zaidi, 2008). Evidence shows that state and non-state

¹⁸ The socio-political dynamics within the 'subaltern group' are also worth exploring in relation to Gramsci's notion of the organic, 'revolutionary minded intellectuals' who should develop from the working class (Hoare and Smith, 1971). If 'class-conscious' state actors (in some contexts, I would argue, bureaucrats from lower-ranking posts) engage with civil society and advocate for the poor, their social location relative to community-based activists must be reconsidered.

¹⁹ Civil society actors are within the NGO/CBO community, while civic society actors are within the bureaucracy.

cooperation is possible through streamlined, *in situ*, street-level 'one-window' approaches to service delivery. However, a lack of resources and recognition by upper tiers marginalizes these approaches. Critical theorists have recognized the need from development from below, to counter top-down mandates (Gills, 2001). While Neoliberalism has traumatized and led to the restructuring of the developing state, it has also irrevocably affected the social and economic balance of urban and rural development across South Asia and the Global South. I now turn to the discussion of this issue in the final body of literature that frames my research study.

2.3 Development Studies

A growing body of research has explored alternative models of service delivery to marginalized groups across the Global South and South Asia (Najania, 2010; Mitlin, 2001; Banuri et al., 2002). Research about how communities organize to engage the state and access services can inform frameworks of state and non-state engagement and encourage inclusive development (Coleman, 1988; McGregor, 2008; Putnam, 2000; Roy, 2011). When civil society actors value collective benefits, replace 'I' with 'we,' form networks, and demonstrate how social income and revenue can be generated by communities; they serve as active facilitators of state-community engagement (Krishna and Uphoff, 1997). This final subsection surveys the development studies literature for the role played by non-state actors in facilitating service delivery to the informal sector. I begin with an overview of how non-state actors are analyzed and continue with an assessment of the different disciplinary agendas that have shaped these findings and how they affect perceptions about non-state actors. I conclude by exploring the current state of research on non-state actors that are engaging in service delivery and their separation from state actors in an era of Neoliberalism. My categorization of the development studies literature is based on a post-colonial studies understanding of development, not of Marxist approaches.

Neoliberalism has irreversibly altered the distribution of labour across the Global South. It has also constrained the human development of large segments of developing societies. Firstly, market led industrialization has increasingly focused on manufacturing and export led growth in urban centres. As a result, development policy making and support has neglected fragile, state dependent agricultural sectors. As villages and rural economies experience the effects of 'anti rural' and 'anti agricultural' policies, unemployment and impoverishment drives rural labourers to precarious employment in rapidly industrializing cities (Bello, 1999). Second, the mechanization of agriculture has replaced farm workers with tractors and capital intensive modes of agricultural inputs. This too, has driven unemployed rural

labour to urban centres (Davis, 2006). Third, the 'green revolution' and the widespread adoption of irrigation practices to support cash crops, has altered the composition of rural agricultural sectors. Capital intensive irrigation projects, tied to export led growth, has led to the concentration of productive lands within larger land holdings. The combined effects of the 'green revolution' and the mechanization of agricultural have left many small landowners unable to compete in the new agro-economy. After being forced to sell their land, these small landowners have migrated to cities in pursuit of economic opportunities.²⁰ Similarly, seasonal rural labourers have established more permanent informal settlements across the urban and peri-urban fringes of city centres due to falling rural employment opportunities²¹. Researchers have noticed that as subsequent generations make these peri-urban informal settlements their home, their identity with their home villages diminishes and they associate themselves with the host city. Taken together, these migrants provide a flexible, elastic pool of inexpensive labour for the formal urban economy. Unfortunately, despite the sheer mass of migrant labour, the 'informal sector' is subjected to deplorable working conditions as compared with other developing economies (GCIF, 2000; MUH HDC, 2011).

South Asia's mega cities have struggled more with rural to urban migration and high-density urbanization as compared to other mega cities across the global South. Informal settlements expanded in South Asia's cities in the mid-1970s as a result of sharp increases in rural-to-urban migration (Bhagat, 2011; Narayana, 2010). The surge in internal migration was driven by the adverse effects of the 'green revolution,' the mechanization of agriculture, and the establishment of export-processing zones in South Asia's larger cities (McMichael, 2008). In the 1980s, continued neglect of agricultural policy, along with the market dictates of multilateral economic and financial interests, further marginalized rural development, displacing labour markets and exacerbating already overwhelming levels of urbanization (Banerjee-Guha, 2009; Mellor, 1991; Mukherji, 2001; UN Habitat, 2007). The encroachment of informal settlements and their modest economic activities (fuelled by the informal sector) has followed industrial

²⁰ There is a continuing policy debate on interventions to resuscitate rural livelihoods and economies, in light of climate change and food insecurity. I do not seek to engage this debate here, but only point out that migration to urban centres is not irreversible at the national levels of policy intervention.

²¹ This trend is in contrast to the previous practise of returning regularly to their home town or village in rural heartlands.

and commercial development and has spilled over into service-based activity. In the absence of realistic planning, the spontaneous, cluster-based concentration of informal sector activity has contributed to the ad hoc nature of municipal zoning. However, this regulatory environment has been undermined by a more organized hijacking of formal developments, the majority of which is done by crime syndicates of land grabbers (Davis, 2008).²² These criminal networks are able to bypass weak municipal zoning rules and 'bylaws' and appropriate public land occupied by informal settlements. Because the poor lack organizational and political clout, their ad hoc economic activities and settlements are often blamed in one-sided analyses of the repercussions of encroachment, such as pedestrian and vehicle congestion.²³

All three countries have simultaneously experienced the uncontrolled growth of the informal sector and its neglect by policy makers and actors²⁴. In India, an estimated ninety three percent of the population resides within the informal sector (SDI, 2010).²⁵ Economic policymakers celebrate increases in corporate earnings, rising investment, and steady GDP growth, despite the deplorable working conditions of migrant labourers (Siddiqui, 2008; ILO, 2008; PILER, 2004). An estimated fifty seven percent of India's urban labourers earn below minimum wage and are subject to working hours that exceed the average eight hours as outlined by labour laws (Mukherjee-Reid, 2010). Working conditions in Pakistan's informal sector are also deplorable, as enforcement of existing labour legislation has been non-existent (Ayub, 2008). Policy research on Bangladesh's informal sector has highlighted the exclusion of the sector from the country's economic prosperity (Siddiqui, 2006). Bonded and child labour is still observed throughout the region, as poor households mobilize available labour to meet the rising costs of basic necessities (Save the Children, 2011; PILER, 2010).

²² In the absence of transparent and robust institutional frameworks for land use zoning, development and regulation, illegal developments have sprouted across the urban landscape. For example, consortiums of public and private officials will violate, bypass and exploit processes and procedures in order to appropriate public lands. Once title has been illegally obtained, they will then arrange for service connections and further integration with utilities to prepare the property for sale.

²³ Formal development which is ad hoc, often results in the densification of urban areas beyond previously 'designed' or 'intended' carrying capacities. Due to the political and economic profile of real estate interests and actors, their disregard for municipal planning is rarely called into question. While it is not the focus of our study (although it appears in the water and sanitation research context), it must be recognized that failures in informal ad hoc planning are the result of a complex range of forces, of which the informal sector is only one component.

²⁴ The informal sector grew as a result of rural to urban migration and the establishment of informal settlements across growing mega cities. I will discuss the emergence of the informal sector in each of the countries in more detail in the results chapters.

²⁵ The informal sector in these studies encompasses informal sector labour that is employed as entrepreneurs and stand-alone proprietorships as well as informal labour which are employed by the formal sector in poor conditions. My study does not intend to conduct an exhaustive analysis of these definitions and their applications. Rather, I only point to these figures as an indicator of its relentless growth.

The result of unchecked rural to urban migration has been the reproduction of urban poverty. The industrialization of cities perpetuates the cycle of rural labour shortages by attracting more migrants with the 'perceived' promise of work (Fava, 1968). This trend has been experienced across the continent. Asia's 'rise' has stemmed from large municipalities witnessing economic growth well beyond the capacities of existing service delivery machinery (ADB, 2012). Social development programs are rare and migrant labourers are left in deplorable working and living conditions. Human development goals are left to the outputs of 'trickle-down' economic growth (MUH HDC, 2000). Weak local government frameworks and poorly supported institutions have been incapable of ensuring the equitable distribution of service delivery (Angotti, 2006; Rakodi, 2002).

Population forecasts suggest that over the next decade, several of South Asia's medium, large, and megacities will experience the greatest rates of urban growth and service demand (UN Habitat, 2003). As a result, many of the larger cities, and especially megacities, will evolve into 'meta cities' (populations over 20 million), characterized by urban corridors and regional economic clusters (see Appendices). Continuous migration and the resulting overwhelming social and economic activity will polarize urban citizenry as market-based approaches to development continue to dominate the urban development policy context (Laquian, 2006). Similarly, the tenuous relationship between the state and informal settlements will persist as both stakeholders have a permanent status within the urban context (Bhagat, 2005). While urban growth is celebrated as part of national development (McKinsey et al., 2008), the adverse effects are being felt across South Asia's largest municipal government departments and agencies (Siddiqui et al., 2004; Bose, 1992). The numbers of informal settlements²⁶ and informal sector labourers are also expected to rise, as space becomes physically and economically scarce (The Economist, 2007). I will return to a discussion of these factors later on in this dissertation. Now let me turn to the administrative context that is the geographic focus of my dissertation and a discussion of the informal settlements and its relationship with the informal sector as a whole.

²⁶ Evidence from census data and localized surveys has pointed to an overall slowdown in the growth of slums. However, it may be argued that this trend highlights the critical mass which slum and low income area dwellers have reached as a result of migration. Low income areas may have 'pukka' (brick or solid) walls while still being vulnerable to evictions and demolition in the face of rising land values. For this reason, we combine both groups together as vulnerable and in need of basic service extension and recognition within urban policy frameworks.

The development studies literature has under represented the specific roles and responsibilities of state and non-state actors in delivering services to the informal sector. To date, urban poverty continues to be understated for a variety of factors and when 'poor data' is used to inform poorly-thought-out policy prescriptions, the challenges facing lower tier state and non-state actors increases (Satterthwaite, 2007). Research at the national levels has insisted on the employing 'welfare state' elements for South Asian governance (Palis, 2001). At the upper tiers, the roles of the public sector in contrast to donor institutions has yet to be defined as part of decentralization programs (Romeo, 2003; WB, 1999; Brookings, 2012). While comparative studies across cities exist, very little research has focused on administration and management at these lower tiers (Memon et al, 2006). This is despite the long held recognition of civil society engagement of local CBOs and poor communities. Dynamics are complex and more research is required beyond the simplistic steps of guide books and best practices manuals that lack political and economic context (Mitlin, 2001). Few scholars have explored the benefits and trade-offs involved in arrangements between state and non-state actors, given the structural constraints and environment of distrust (Batley and McLoughlin, 2010). Many South-based commentators also point to the need for more South-South comparisons that examine governance arrangements from a developing city perspective. To this end, there is a need for more South-South comparisons on municipal programs and arrangements that formalize non-state engagement. Unfortunately, most development studies research involves methodologies borrowed from non-administrative fields such as development economics, the result of upper tier research agendas and export led development models. Calls for South-South governance and administration comparisons are ignored as policy audiences turn their attention to private led development models and solutions. Despite the influence of neoliberalism on urban policy thinking, most experts in the field still point to the critical role of the state to provide for those suffering from poor human development (Haq, 1999; Sen, 2008). Where a gap in state services has been noticed, civil society has been recognized at least as an interim advocate for the informal sector. Let us now turn to the experiences of these non-state actors in the next sub-section.

2.3.1 Isolated successes in the field

The role of civil society in engaging the urban poor²⁷ and arranging for access to services from the state has been documented through case studies (Haque, 2004; Banuri et al., 2002). Unfortunately, this group of advocates for the poor have not had much influence in the policy-development process or urban program reforms²⁸ (Laquian, 2005; Burra, 2005). In Karachi, civil society actors await the revival of lower tier state departments and political changes in order to implement policies and programs specific to the informal sector (Siddiqui, 2005; Zaidi, 2008). A similar situation exists in Mumbai, where evictions of slum communities continue despite years of lobbying by civil society actors to housing authorities (Burra, 2005; Raman, 2011). Clearly, the mobilization of communities by civil society need not be solely for political purposes; it must involve administrative functioning in an effort to extend services and strengthen communities (Hasan, Patel and Satterthwaite, 2005). In order to invert the relationship between formal and informal sectors which subsidize the elite with cheap and unprotected labour, increased engagement between state and non-state actors will be required to address marginalization and encourage some level of human development and service delivery (Amin, 2011; Gills, 2001).

Development studies research has documented successful efforts of state and non-state actors across the Global South (Tostensen et al., 2001; Rook and Ayre, 2006). Fewer alternative service delivery experiences have been profiled in South Asia (Martin, 2004; Siddiqui, 2005; Chowdhury, 2011). Pilot projects abound, but limited oversight and no process for engaging non-state actors has been established. Meanwhile, civil society organizations are facilitating the extension of services to the informal sector in cooperation with lower tier state actors in areas such as water and sanitation (Sansom, 2006). The analysis of civil society pilot projects and public service reforms across Asia points to opportunities of shifting governance to local programs. (Raagman and Robinson, 2006). Although there has been considerable documentation of civil society successes within market settings and through MNC aligned business models, very little assessment of the requisite program design and policy implications has been conducted (Prahalad, 2004). Based on these findings, states still do not appear to

²⁷ Civil society actors (local-level CBOs), with the assistance of NGOs demand the provision of services on behalf of poorer communities.

²⁸ Foreign NGOs appear everywhere, with country and regional offices. Most of these INGOs are advocates rather than service facilitators

fully understand the potential of engaging both the informal sector and non-state actors in socioeconomic development. This may be due to the widespread skepticism in the industry and perception that non-state actors are aiming to displace the state (Zaidi, 1999). Furthermore the state may also be signaling its desire to control and manage the increasingly influential non-profit sector (Sidel, 2005). This is understandable given evidence that the state may be more effective in service delivery than the non-state sector (Kundu, 2011; Mansuri and Rao, 2004) and the commercialization of various non-state actors (Mitlin, 2001; WB, 2009). Informing this body of literature about the roles of informal sector and lower tier actors will be valuable to policies that extend service delivery in mega cities.

Neoliberalism has had irrevocable consequences on service delivery contexts across the subcontinent. As anti-rural policies pushed migrant labourers to urban centres, urban service delivery has been overwhelmed. Upper tier policies, preoccupied with industrialization and the concentration of power in the hands of capitalists, have neglected lower tier realities. The result has been the systematic withdrawal of the state from service delivery to growing segments of urban society. Over time, service delivery has become polarized between wealthier, formal settlements and informal settlements. The gap in service delivery to the informal settlements has been filled by a number of non-state actors. A range of multilateral institutions, private donors, non-government organizations (NGOs) and community based organizations (CBOs) have inserted themselves into development contexts. Over time, service delivery shortfalls across the different mega cities have been filled on an ad hoc basis by non-state actors which may inevitably exclude public sector agencies or reduce them to being subservient to neoliberal development. As donor-funded civil society projects compensate for inadequate service delivery machinery to the poor at the lower tiers of the state, higher tiers of government avoid addressing the social and structural realities and providing resources to lower tiers, perpetuating service delivery polarization (Cleaver, 2001; Tandon et al., 2001; Farazmand, 2002). The cycle is perpetuated as the comparative 'low wage' advantage of the industrializing city is fed by migrant workers. Growing informal settlements with no accommodation or access to basic services then results. Although

scholarship on private sector supply chain management has been well received, process improvements to administrative machinery have received little attention.²⁹

The limited, isolated successes of non-state actors have revealed differences in approaches to service delivery across a range of non-state (civil society actors). Critical views of non-state actors abound across the development studies literatures which point to the flaws of development thinking, propagated largely by larger, upper tier non-state actors such as NGOs and INGOs. These upper tier non-state actors have often embraced large scale, private sector led solutions to service delivery opportunities with little in the way of funding or sustainment. For example, market-savvy donor-driven INGOs appropriate development contexts and policy discussions from 'self-help' and indigenous NGOs through foreign funded resources and networks. These forces have influenced international policy forums, drawing attention away from lower tier concerns (Satterthwaite, 2001). It should be noted at this juncture, that I will not be expanding on the influence of these upper tier non-state actors on the 'development industry' and the policy landscape of municipal governance. My research is primarily concerned with understanding the intricate relationships which have formed between lower tier state and non-state actors in the context of policy formation and how policy is or is not implemented. Regarding lower tier efforts, sustained pressure on the administration of service delivery is needed to counter-balance the deviations and unsustainable costs of top-down policy initiatives (Wegelin and Borghan, 2001). Lower tier non-state actors fill in the shortfalls by mobilizing informal sector communities and developing smaller scale initiatives to support infrastructure extension. Unfortunately, these alternative models at the lower tiers, allow the upper tier non-state (and state) actors to avoid addressing institutional restructuring challenges. This in turn, perpetuates service delivery polarization (Cleaver, 2001; Tandon et al., 2001; Farazmand, 2002).

²⁹ Development thinking leans towards private sector efficiencies, while neglecting the examination of public service delivery effectiveness. New public management approaches push for the unbundling of state services while avoiding the analysis of gaps and shortfalls. The short sightedness of such thinking is evident in the pattern of 're-municipalisation' of water utilities across the global South. Similarly, the failure to recognize the integral nature of informal sector labour as part of the Globalizing Urban South's comparative advantage, leads to their eviction. The relationship with sustainment will be expanded on later.

Cooperation between state and non-state actors has been documented within specific urban service delivery contexts, such as water and sanitation (Sansom, 2006). The policy literature also documents the establishment of service delivery networks, highlighting the critical role of lower tiers of the state in engaging the urban poor. Multilateral stakeholders are once again promoting the need for capacity building, as part of a retooled new institutionalism based agenda that previously ignored municipal development (ADB, 2008). Administrative development evidence suggests that the lower tiers of the state are better positioned to engage the urban poor than programs situated at upper tiers of the state (Shaheen, 2009). Researchers have identified differences in motivations between upper tier stakeholders (policy formalism and 'votes for services') and lower tier actors, which are tied to funding at national and provincial levels of government (Farazmand, 2002; Heady, 1998).

The various service delivery outcomes that have resulted from the engagement of lower tier state actors with civil society organizations warrant comparative research and examination. Lessons from the experiences of megacities and their struggles with neoliberalism can inform policy and management frameworks for cooperation between state and non-state actors. In order to further define and situate my study, I now survey this literature as represented from the perspective of the Global South.

2.4 Informal Settlements, Neoliberalism and the Global South

The economic contribution of the informal sector has been discussed within the development literature and deserves special attention. The contributions of the informal sector have been understated in early work by DeSotto, Turner, and others. More recently, a number of development economists have unpacked the 'capabilities' and 'capacities' of the urban poor to develop on their own terms (Sen and Dreze, 1998). The social rehabilitation of the informal sector through improving their settlements seems to be an effective set of interventions for human development. In economic terms, simply enabling the urban poor seems to be the most efficient approach for their development. Sen's lectures on commodities and capabilities outline such an approach. Having long challenged the traditional notions of opulence (based on real incomes) as well as utility (possessing choice, obtaining happiness or fulfillment), Sen (2005) repackaged the measures of human choice and ability, arguing that the real measure must be of what a person can do and can be through 'wellbeing' and 'advantage'. A person's 'functioning' (what a person does with the commodities and capabilities at hand) and his/her 'valuation' (that which is held in high regard by the individual or society) require addressing at the policy level:

one's ability to make decisions is affected by one's immediate environment (Dreze and Sen, 2008). The valuation of the informal sector is intricately tied to Neoliberalism.

Neoliberalism has exacerbated the formation of informal settlements since the end of colonialism. A key input to capitalism across developing countries, informal sector labour has provided lower costs and depth of capacity to the industries and economic bases of their host mega cities. This displaced segment of labour subsists by working under irregular working conditions with no benefits, lower rates of remuneration, and no safety protocols or implemented labour laws. Informal sector labour also allows urban industries to engage in import substitution and replacement without incurring the requisite costs associated with basic service provision and social development of the working class (Davis, 2008). Urban industries are thus able to maintain a flexible, elastic labour force while avoiding the costs associated with ensuring the provision of adequate publicly supplied services (Portes, 1996; Davis, 2006). Underpaid employees of formal sector firms also employ informal sector labourers in various services such as food services, clothing and transportation. This buoys the livelihoods of formal sector labourers with amenities that they might otherwise be unable to afford. Local industry is provided with hourly/piecemeal wages as needed, without the costs of paying benefits or taxes that would resuscitate a poor and marginalized labour class. Clearly, the ample supply of informal sector labour contributes to increased productivity and profits that drive urban economies.

Despite their contribution to urban industries, their contribution is not recognized by the state or market. In fact, public and private authorities occasionally seek to eliminate the informal settlements that spring up across megacities as informal labourers struggle to cope with the lack of housing (Stokes, 1962; Mangin & Turner, 1968; Perlman, 1976). Shortages of housing, water, sanitation, waste management, transportation and other basic services burden urban 'carrying capacity' and fragile service delivery mechanisms (UN Habitat, 2011). The result is the emergence of private 'pay-per-use' models, which displace public service delivery. As the wealthy are able to pay for services, the poor are left to cope with alternatives or illegal access. Illegal access exposes informal settlements to the threat of eviction. For instance, informal settlements which are situated on land where tenure has not been awarded to slum dwellers may be appropriated by developers once land values rise. Consequently, as public assets, wealth, and access to services are captured and concentrated in elite networks, polarization fuels conflict and social unrest. In order to placate the informal sector, the state provides a meagre, temporary level of service delivery and recognition. Scholars are questioning the effectiveness

of such an approach and the legitimacy of the institutions that sustain them. The effectiveness of imported development models is questioned, as years of experimentation have not yielded positive outcomes or equitable development (Batley & Larbi, 2008).

2.4.1 Formal-Informal sector dynamics

As the informal sector underpins the productivity of urban economies, state interests should motivate the formulation of policies that sustain the condition of flexible labour. Development economists recommend that the state combine the ‘identification’ (identifying who in society is poor) and ‘aggregation’ (summarizing the meanings of ‘urban poverty’) of the informal sector, for the betterment of urban society (Sen, 2006). Although most state actors are disconnected from urban society and the informal sector, those at the lowest tiers are mandated with ensuring sustained service delivery to all citizens (Laquian, 2008). In fact, it is expanding megacities which are struggling to provide services to all segments of society. Because mega city economies have multi-governmental effects, their administrations should be supported by intergovernmental policies that encourage the delivery of basic services to informal settlements (UN Habitat, 2012). As implementers and administrators of state policy, the lowest tiers of the state are best positioned to assess the condition and context of informal settlements. Unfortunately, there are a number of factors that disable engagement.

Unfortunately, policy actors often equate the informal sector and settlements with criminal activity and the pilferage of public assets. However, the linkage between the two is much more complex than one-sided analysis suggests. First, the spread of illegal developments in areas characterized by increased land values, are the result of opportunistic collusion and corruption among government officers. The weak institutional frameworks that permit such organized crime are rarely held to account. Second, informal settlements lack access to basic services, despite ad hoc ‘policy bandages’ (Civis, 2008). The absence of basic services provides opportunities for organized criminals to exploit weak institutional frameworks. Building materials, water and power are all sold by criminal syndicates at exorbitant rates to informal settlement households. Third, political rhetoric has resulted in a short term cycle of neglect. Upper tier state actors, nudged by general strikes and media coverage of slum evictions, offer time bound support to informal settlements. This results in short term initiatives being launched to facilitate slum upgrades and rehabilitation. However, many of these ‘top-down’ policies fall short of their intended promises and fail to address chronic service delivery challenges. Local implementing bodies and lower tiers of the state are disengaged from these efforts, leaving slum dwellers to find alternative (illegal) access to

water, sanitation, and shelter. In the meantime, the development lobbies continue to push their agenda, which results in gentrification drives and uprooting of slum dwellings and informal settlements.

Policy development is further complicated by the legacy of colonialism, the proliferation of neoliberal policies and extremely rapid urbanization. Colonial rule has left developing countries with an elitist, centre facing bureaucracy, disconnected from the realities of lower income groups. Situated within the upper levels of the state, a well-educated class of Anglicized bureaucrats has been largely concerned with retaining power rather than implementing policies (Alavi, 1972). These forces have overwhelmed the carrying capacities of mega cities and their ability to engage the informal sector. The legacy of colonial rule has been that political and economic interests dictate the policy priorities of national and provincial governments. Macroeconomic concerns divert support away from dense, over-burdened municipalities. Neglect by 'upper tiers' of the state and declining provincial–municipal resource transfers is eroding 'lower tier' service delivery capacity. The result is the polarization of access to services: only those with political connections and economic resources are able to negotiate access to scarce municipal services. Those without the requisite political ties or economic resources are confronted with scarcity. This is the situation faced by the informal sector, many of which are surviving in unplanned, informal settlements. Relegated to shrinking public spaces, the informal sector struggles to meet basic needs³⁰. As a result, its members are unable to participate as recognized and capable citizens within urban development (ADB, 2008). My primary objective is to inform administrative development research about the ultimate responsibility of the state for extending service delivery to informal settlements. The findings may contradict the neoliberal trend of downsizing or trimming governments; genuine social development of South Asia's megacities requires active involvement, coordination, and sponsorship by the state.

³⁰ Non-state actors including civil society and donor agencies provide isolated instances of support, which I will explore later on as part of my research. However, the absence of continuous state support is devastating for the informal sector.

2.4.2 Neoliberalism³¹ and the Global South

The pressures of globalization, 'Neoliberalism', and urbanization continue to be felt across the sprawling cities of the 'Global South' (Jack, 2006; Cornia and Court, 2001; UNDP, 2001). Neoliberalism is most simply defined as the spread of market led policy development by the privatization of the public domain. Since the end of the 'Cold War', several developing countries experimented with state led development models. State-led development or quasi-socialist policies were adopted across many countries during the first three or so decades of decolonization, but due to a number of external and internal factors, experienced limited success in terms of social uplift. As capitalism spread during the post-cold war global economy, U.S. supremacy continued largely unabated. During this time, development models sidelined the role of the state and placed more emphasis on the role of markets. I would like to emphasize at this juncture, that I do not intend to expand on how neoliberalism has spread in states as they embraced globalization. A theoretical examination of the relationship between neoliberalism and the complexities of expanding developing city contexts is well beyond the scope and resources of this study. My interdisciplinary focus is concerned largely with how neoliberalism manifests itself within the informal sector and at different levels of urban state and society. Industrial capitalism has led to the marketization of developing countries where finance and export led growth have dominated policy making. The policies of administrations in India, Pakistan and Bangladesh have been shaped by neoliberal thinking, restructuring and deregulation, and other policy dictates of Bretton Woods' institutions. The result of market centered policies has been exponential levels of rural to urban migration as well as urban displacement which in turn has compounded migration. Key works by Harvey among others, regarding the 'right to the city' are engaged by my research on the disparities between different tiers of the state and those which support human development. As such, the relationship between capital and labour and various modes of production in so far as these services are concerned is not my main focus. Nevertheless, let me briefly touch upon some of the key manifestations of neoliberalism in urban settings which have implications for our theoretical understanding.

³¹ The term 'Global South' is often used in reference to the states and societies of developing countries south of the equator. The term 'Glurbanization' is emerging in the literature as a reference to the simultaneous processes of globalization and urbanization. I use urban throughout my dissertation, but recognizes the linkages between globalization and urbanization.

With respect to the effect of neoliberalism on inequality, evidence from South Asia's mega cities links the polarizing development patterns of urbanization (set into motion by colonial rulers) with rising land values and the crowding in of market forces (in large cities). Over time, policy attention given to urban industrialization and rural mechanization has led to the steady flow of informal sector labour (resulting from rural to urban migration and the growth of slums and informal settlements). Criminal interests (internal and external to the state) have coalesced into a 'land grabbing mafia' which has exploited policy gaps in land planning to appropriate public and private land for development that caters to elites. At the other end of the spectrum, the absence of any effort by the state to engage in the human development of rural migrants has led to the exploding ranks of urban informal sector labour. The exploitation of this labour pool and intensification of capitalism has paralleled the policies of developing economies to leverage the competitive advantages of urban cities³².

Neoliberalism's anti agriculture approach (a la the GATT-WTO) has mechanized agriculture, driving labour from rural heartlands to ballooning mega cities. In the meantime, the nation state has neglected any efforts to resuscitate social services or capabilities as weak programs have been dismantled (through state restructuring as well as the concentration of donor facing policy power in central governments) (Farazmand, 1996, 1999, 2002). The only remaining apparatus within central governments (development authorities in each of the mega cities) have been refocussed on multilateral institutions, facilitating market liberalization and unsustainable plans for urban development and modernization. The combined pressure of these neoliberal forces have eradicated any the remaining, albeit tattered, social safety nets. So the cities have become places, as Harvey says, for business to grow, rather than for people to develop (Harvey, 2006). As these mega cities and their social services continue to buckle under the pressure of migrant labour, the bare operation of municipal capabilities caters mainly to the needs of elites without engaging the steady supply of rural to urban labour. As a result, lower tier services are unable to bridge the gaps between rich and poor, or facilitate any service delivery extension

³² The persistent attention given to neoliberal strategies (McKinsey's Mumbai development papers) has eclipsed more community based, pluralistic discussions of equitable development which result in interactions between broad segments of urban stakeholders (state and non-state). I will explore these patterns and gaps within the results chapters for each city and draw out findings from the case studies.

to the broader benefits of human development across the ranks of precarious labour in the informal sector.

My research insists that the study of the urban precariat must be accompanied by representatives and sympathizers in the state and non-state sectors who struggle to extend services, in the case of my research, to the informal sector and informal settlements. Of course, there are multiple layers and complexities that require examination and research in the complex socio economic settings of the municipal south, than have been factored into my analysis³³. Nevertheless my research accompanies these observations and points out that counter forces may not emerge solely from the ranks of the urban poor, key participants in 'class struggle' as has been traditionally understood. Conscious technocrats (as illustrated by the range of actors in the water and sanitation sector) who recognize the 'human development needs' of the informal sector and the precariat are valuable supporters in this struggle. My research points to a separation between elite bureaucrats (who neoliberalism has restored class power to) in central governments and less educated, lower class functionaries (street level bureaucrats) in municipal government. If, as Harvey indicates, this is all about class struggle, particularly in cities (be they across the Global North or South) theories about neoliberalism must account for differences across the labour market, which he points to in his elaborate discussion of the redistributive effects of neoliberalism (Harvey, 2006). For example, municipal departments who benefit from the engagement of informal settlements (although they are held hostage to the whims of local elites) must be considered as partners, at least passive ones³⁴, in the efforts to resuscitate informal settlements and their inhabitants. More specifically, municipal utilities such as water, benefit from direct engagement with communities and the cycles of revenue generation from tariffs and user fees. There are also technocrats from municipal governments (punishment posts) and members of civil society who are embedded in these informal settlements who advocate and negotiate with lower tier departments for

³³ Davis' 'Planet of Slums' provides a rich overview of these forces in urban settings and their situation within the neoliberal policy context.

³⁴ The interests of this lower tier of state functionaries, due to their marginalization by the upper tiers of the state, are not in line with the wealth redistribution patterns (privatization, financialization, crises management and upper tier state led redistribution of assets) supported by the upper tiers of that state and neoliberal apparatus. The lower tier does not benefit from 'accumulation by dispossession', as Harvey states but more from the equitable distribution of services and human development of all citizens to the benefit of urban infrastructure investment and sustainment. This difference in interests, combined with the marginalization of the lower tiers, situates these 'street level bureaucrats' closer socially and politically even, to the informal settlements than elites within the upper tiers of the state.

the extension of services³⁵. Their role is in contrast to the plethora of non-state actors which have dominated urban development.

It should be noted that multilateral institutions have always played a role in promising participation to developing country governments. However, as researchers have pointed out, rules and policies have always been tied to a framework of U.S. based control (Cox, 1987). It is certainly arguable that proponents of Neoliberalism failed to prepare developing countries for the after effects of market centred policies. Nevertheless, the overall and continuing subjugation of developing countries and cities by developed countries requires analysis.

Neoliberal policies were implemented without a sufficient understanding of the impacts on urbanization or human development. Several studies on the neoliberal restructuring of the Global South has improved our understanding of the challenges and dynamics surrounding service delivery to informal settlements. In the absence of 'state will', service delivery has been contracted out to non-state actors (civil society) with costs and benefits for urban economies. Critical analysis of NGO efforts points to the provision of a minimal level of intervention to resuscitate informal settlements and their inhabitants. As Dunk points out, these efforts guarantee the provision of a marginalized, desperate working class that is without recourse or recourse for human development (Dunk, 2002). Along the urban fringe, many informal settlements are struggling with access to services, priced as much as ten times the public tariff. There are a growing number of homeless informal sector workers who reside on the streets as pavement dwellers.

The risks of disease, civil unrest, pollution, scarcity and insecurity post significant risks to urban society. As a result, in contrast to Dunk's commentary, non-state actors are pointing to the active role that lower tier actors must take in preventing such a tipping point from taking place³⁶. Peck (2004), rightly points to

³⁵ Similarly, these lower tier non-state actors cannot be treated in the same way as upper tier non-state actors such as the donors who have been discussed already. Analysis of their role will emerge in the findings chapters of this dissertation.

³⁶ In this regard, it is relevant to point to the disastrous circumstances that arise from ongoing unrest in Karachi. Civil unrest leads to violent riots where the public vents their frustrations by damaging public and private property. In many cases, the target of rioting is the poor state of transit and ostensibly, buses and other large vehicles. It should be noted that most of the buses in Karachi are owned by private operators.

the transnational nature of Neoliberalism. He points out rightly that across the literature, there is an acceptance that Neoliberalism has not replaced the state, but has in fact influenced the state to accept market led development through different means of regulating/policing market activities (Peck, 2004). According to Harvey, urban governments have been forced to shift from managerialism (providing services, facilities and benefits) to entrepreneurialism (local development and employment growth) as a way of retaining a position within the neoliberal state (Harvey, 1989). This brings the relationship between urban change and economic development into focus as developing states, go through considerable economic and political instability. Urbanization has helped to capture urban surpluses. Many who are dispossessed live alongside the wealthy and affluent in what Davis refers to as planet of slums (Davis, 2006). Harvey's solution is more democratic control of the surplus and democratic management of the city. The roles played by state and non-state actors will be explored later on.

The colonial legacy has most obviously, led to the restructuring of the South Asian state and the polarization between upper and lower tiers of government. Neoliberalism has ossified this relationship by concentrating economic and financial power in the upper tiers of the state. Neoliberal forces allow for the imposition of top down policies formulated at the upper tiers of the state on lower tiers. For example, national and provincial/state governments across the region have retained financial control over public and private led development. Lower tier state actors (municipal governments), subjected to post independence development experiments have continued to struggle with limited capacities and the effects of Neoliberal policies. The combination of limited state led models, context-less colonial era state structures and severe climate-related events have negatively affected the regions unplanned mega cities.³⁷ (Subramaniam, 1990; Sivakumarakrishnan, 2004; Parker et al., 2010). Over time, upper tier planning for South Asia's largest cities shifted from development projects to export-led growth. Private sector investment and development projects displaced state planning and public sector projects with

However, post-riot analysis continues to show that that it is only the few remaining public buses that are torched and set alight. As a result of such action, the informal transportation industry or road mafia, retains control over its assets and is in fact strengthened. Service continues to be deplorable, which leads to civil unrest and riots. The cycle then continues.

³⁷ 'Context less, colonial structures' is a term coined by Subramaniam to describe legacy-based structures from colonial rule, and hierarchical bureaucracies with little connection with the societies in which they are established. Self-interest and promotion, as opposed to public service and societal engagement, has further distanced institutions from the members of society which the state is mandated with serving.

liberalized, free market policies (MUH HDC, 2001). Initially, upper tier policies marginalized agriculture and promoted export-processing zones. These policies elevated the political profile and economic position of urban industry, perpetuating the inflow of migrant labour (Siddiqui, 2008). As private interests gathered strength, they overwhelmed lower tier institutions (already fraught with corruption and mismanagement) resulting in further neglect (Siddiqui, 2006; 2004). The result has been the privatization and transfer of lower tier state assets to the private sector elite. The downtrodden and marginalized have been left to improvise in ad hoc urban contexts (Hasan, 2002; Islam, 2006).

Evidence from megacities (including South Asia) has revealed how free market development agendas have contributed to an increasingly polarized urban citizenry (Hasan, 2002; Islam, 2004; Siddiqui et al., 2004; UN Habitat, 2010). Rising land values attract commercial developers and few provisions are made to accommodate the social and economic activity of the labour force. Very quickly, existing infrastructure is overwhelmed by unplanned development, so ad hoc service delivery pathways emerge. Targeted socially planned low-income settlements are converted to middle income assets, vulnerable to volatile housing markets. The city's market-driven environment becomes so competitive that even well-intended imported projects, policy prescriptions, and civil society efforts struggle in isolation to support the informal sector (MUH HDC, 2007). Imported projects are limited by short life cycles as they target specific groups without addressing the structural constraints to equitable development. Thus, the competitive environment perpetuated by Neoliberalism continues to erode equitable development in South Asia's megacities. In the absence of sufficient municipal capacities to balance development outcomes, vast segments of the urban poor are excluded, contributing to a growing informal sector.

As personal or informal regulation increases, formal regulation through the state has advanced in others ways. For instance, there are a number of 'vertical topographies of power above daily life and community', which have taken over the role of the state (Ferguson and Gupta, 2002). My research will explore the manner by which certain institutions have been destroyed and replaced by others, at the expense of human development and service delivery to informal settlements.

2.4.3 South Asia's Mega Cities and Informality

South Asian research about informality speaks to the role played by the informal sector in economic development (Khan and Kazmi, 2008; Bairagya, 2010). For example, informal sector labour supplies food, clothing, and transportation services to the broader labour market and supply chains utilized by

the formal sector (Hasan, 2002; Islam, 2006). It also provides flexible, contracted labour and supplier services to the formal sector during turbulent periods of economic activity (Khan & Kazmi, 2008; Amin, 1987; Mukherjee, 2002). In many cases, this pool of labour provides mega city administrations with services that bridge gaps in service delivery. Informal sector productivity expands and contracts to mirror economic needs because it operates within a transient social and economic space (Reza, 2003; Chaudhuri & Yabuuchi, 2007). It also redistributes wealth to rural areas, through remittances from migrant workers, internally displaced peoples and informal sector labourers (Seddon, 2004, Miah & Weber, 1991). Because the informal sector is intricately linked with urban economic activity, development economists have long argued that the informal sector should receive state recognition and rehabilitation on this basis alone (Khan and Kazmi, 2008; Chen et al., 1999). Evidence from the informal financial sector in Bangladesh has been shown it to serve the needs of the poor much better than the formal sector (Rahman, A., 1992). Evidence from field studies shown that the poor are capable of saving, once the machinery to support their financial behaviour has been provided (Rutherford, 1998). In the surging urban economies of Asia, this line of development thinking has gained momentum, so more policy discussion about the engagement of marginalized groups in urban areas is required. The dynamics between formal and informal stakeholders is now turned to in the next subsection.

Despite its contribution to the local economy, the informal sector continues to suffer from policy and service delivery neglect. Recognition of the informal settlements of South Asia's urban society is formal at best, in so far as national policies exist on paper (Farazmand, 1998; Siddiqui et al., 2004). Informal settlements have received support from non-state actors, but successful outcomes are isolated and almost in light of the swelling numbers of migrant labourers (Banuri et al, 1999). State and non-state actors alike recognize the ultimate responsibility for service delivery lies with state actors.

In light of the overwhelming growth of informal settlements across South Asia it is valuable to compare how state and non-state actors extend services to informal settlements across the region's megacities. For instance, upper tiers of the state's bureaucracy can introduce or withdraw resources, targeted programs and differential tax regimes. The accumulation of wealth and the exercise of power at these

upper tiers of the state affect outcomes at the lower tiers by excluding them from the policy making agenda. Mega city administrations at the lower tiers of the state are thus forced to negotiate their relationships with upper tiers of the state as well as donors, market players, civil society, and a range of class-based communities.³⁸ The complexity of relations between upper and lower tier state actors and informal settlements makes comparisons between Dhaka, Karachi, and Mumbai all the more insightful³⁹. Global studies have emphasized the importance of basic services as key components of human development (UNDP, 2010). Evidence from South Asia has also revealed the importance of basic services to human development and poverty.

Comparative research about service delivery to informal settlements across South Asian megacities is necessary given the region's shared history of colonial development and neo-colonial intervention. The subcontinent's shared social, cultural, religious, historical, and political context provides a useful stage for national and urban comparison (Siddiqui et al., 2004; Bauer, 1956). Colonialism's effects on the region's governmental structures (e.g., bureaucratic class culture, institutional hierarchy, and political-administrative dichotomies) have had an irrevocable impact on state-society relations (Subramaniam, 2001; Haque, 1996). The state cannot be taken as homogenous; the relationships between upper and lower tiers of state actors require examination. Studies conducted in African cities have shown how vibrant, indigenously developed urban centres have been replaced by top-down, hierarchical models of governance imposed by colonial masters (Myers, 2011). Clearly, the post-colonial development of state and city has been influenced and dictated by foreign agendas, multilateral institutions, private sector interests, donor agencies, and NGO mandates. Collectively, development experiments, foreign policy interventions, and market volatility have complicated the overall improvement in human development within developing countries (McMichael, 2008). Foreign intervention has complicated inter-governmental processes, controls, and power relations, thereby contributing to failed devolution and decentralization reforms. The 'resilience' of the informal settlements as well as the informal sector

³⁸ Clearly delineating between upper and lower tiers is a complex undertaking. I use this term not to exclude other meanings of upper and lower tiers, but only to clarify my understanding and ensure consistency in examination across South Asia's mega city contexts.

³⁹ Water and sanitation service delivery processes and pre requisites share linkages with housing and shelter as well as solid waste management processes. Where relevant, I will reference findings from these service delivery contexts across the three mega cities.

within South Asia's mega cities compels the case for comparative policy research at the mega city level. In order to frame the approach of my research, I now provide a brief overview of the current themes in the interdisciplinary policy literature.

2.5 Current Themes in Interdisciplinary Research

Comparative public administration research has identified the limitations of imported development frameworks and asserted a research agenda for the condition of local government policy and program frameworks⁴⁰ (Stren, 1994; Siddiqui et al., 2002). At the national levels of government, top-down economic policies continue to exert donor-funded pressure on development plans, with gains funding the current political regimes (Umeh & Andranovich, 2008; Rakodi, 2006). The costs are absorbed by the growing masses of urban marginalized labourers, who are excluded from formal development (Laquian, 2008). When social and environmental development projects are proposed by multi-lateral institutions, they fail to address the overwhelming structural problems within the context of urban development (Satterthwaite, 2006). In contrast, researchers have acknowledged that effective reforms to developing states will require approaches to reducing corruption, along with increased transparency and accountability (Batley & Larbi, 2004). Unfortunately, few comparative analyses have focused on the institutions responsible for urban service delivery. Upper tier institutions involved with decentralization and lower tier institutions mandated with basic service delivery require assessment from the perspective of human development⁴¹ (Dwivedi & Nef, 1998). Careful analysis of these policies and institutions – and to distinguish how Neoliberalism inserts itself by pursuing transparency and accountability demands without the corresponding attention to structures that promote corruption or unaccountable bureaucratic and political decision-making – will help clarify whether policy failures are the result of poor formulation or development, legacy of colonial states structures or insufficient implementation and monitoring resources.

⁴⁰ In particular, little local research is disseminated and shared broadly with higher tier policy makers in a way that may possibly positively impact development policies in larger urban centres. Stren's frustration with management replacing planning is apt, given the overwhelming challenges facing urban centres across the global south where planning, for all intents and purposes, has met limited measurable success.

⁴¹ To this end, it is arguable that SAARC be considered as a forum where regional urban issues can be discussed and policy/program solutions shared between cities that otherwise lack a critical mass of policy capacity. Only together, arguably, will mega city stakeholders and their burgeoning 'corridors' be able to move beyond a colonial and post-colonial context.

Contributions to critical policy analysis also focus mainly on the upper tiers of the state; while urban service delivery machineries and institutions at the lower tiers are neglected (Leftwich, 2008; Devas, 2001; Umeh & Andranovich, 2005; Rakodi, 2004). As eluded to earlier, critical theorists and Marxist analysts focus on the developing state and attribute underdevelopment to core-periphery marginalization, neocolonial effects, and the destruction of the indigenous pre-colonial mechanisms and governmental structures, vital to societal development (Amin, 2010). While such analysis is certainly accurate, research agendas dismiss the ability of governments to deliver services equitably, arguing that states as a whole, lack the political will. Graft and corruption among petty bureaucrats is often blamed for the inability of policies to translate into improved outcomes. Generally, researchers conclude that 'good' policy ideas were subject to ineptitude, underfunded, and improperly implemented. This conclusion rests on the assumptions that resources were adequate and that intergovernmental cooperation was obtained. In other words, 'policy failures' are blamed on state actors, institutions, and instruments at the policy implementation stage. Similarly, critical policy analysis tends to focus on how the colonial state creates impediments to equitable service delivery and development, allowing elites to benefit from state accumulation of capital. Few studies have separated the structures that support policy development and formulation from those which implement at the lowest tiers⁴².

While policy activism led by civil society has emerged from the failures of state development, analyses have neglected service delivery reforms. Research stops at the failings of policy formulation and development at the national/provincial or upper tiers of the state (Banuri et al., 2001). Imported models are increasingly being viewed with suspicion by commentators on development policy as they do not factor in non-state engagement (Satterthwaite, 2006; Anzorena et al, 1998). Where civil society initiatives have been successful, studies have avoided the policy analysis of precursors to state and non-state engagement. Civil society led research under emphasises the value of state and non-state models for service delivery. Development research about the global South focuses on context-specific innovative experiences, anecdotal perspectives, and voices of individuals and communities (Civis, 2003).

⁴² For instance, many of the mega cities of South Asia are responsible for jurisdictional problems and challenges that are well beyond 'official city limits'. The peri urban fringe is a space where upper and lower tiers of the state jostle for resources and neglect service delivery responsibility.

Many of these studies exclude the condition of state institutions even if they assign to them ultimate policy and program responsibilities. Hence, while development research provides insight into the realities of marginalized groups and challenges the assumptions of mainstream studies, they avoid a rigorous examination of the state's role within these societal contexts. In contrast, research focused on urban service delivery has identified the critical role of the state to sustain efforts beyond the short term (Siddiqui et al., 2008; Umeh & Andranovich, 2008). The outcome of a narrow research agenda is the generation of short term solutions, without a sustained long term role for state actors. The result of this analytical trend is a lack of real input for policy research and reform: a sort of 'policy black hole' (Hay, 2001). I will review the literature more substantially in the next chapter, as my purpose here is to draw out the composition of the state.

2.6 The interdisciplinary policy context of service delivery to informal settlements

The interdisciplinary literature reveals a range of policy challenges that surround service delivery in mega cities. First, research from all three bodies of literature has directly or indirectly pointed to the necessary role of the state in ensuring sustained service delivery to the urban poor (Kundu and Samanta, 2011; Desai, 1999). Second, pressure on local governments for services will increase in the years ahead as state resources and service delivery capacities experience scarcity in the face of rising populations (Sivaramakrishnan, 1999). Third, the general consensus is that lower tiers of the state have been challenged by a history of mal governance: upper tier interests and poor policy interventions have resulted in duplicate departments, overlapping mandates, and inefficient and ineffective programs at the lower tiers. Additionally, evidence indicates that flawed upper tier policies and weak governance frameworks have resulted in the elite capturing public resources through collusion and illegal activities. Finally, various context-specific studies have revealed the urgency with which upper and lower tier state responsibilities must be disentangled to ensure service to marginalized populations (Mah, 2011; Bapat and Agarwal, 2003).

Addressing the complexities of urban challenges is not high on the political (policy) agenda. A lack of political will persists at the upper tiers of the state, resulting in limited budget allocations to mega cities. Disenchanted informal sector stakeholders have lost faith in election promises and temporary interventions to service delivery limitations. Self-help civil society actors argue that it is more valuable to analyze weaknesses in institutional reforms rather than create another set of policies for lower tier

actors. Analyses of service delivery should be based on indicators such as levels of autonomy, participation of the informal sector, service delivery efficiency, equity, transparency, accountability, and the rule of law (Siddiqui et al., 2004; Zaidi, 2008; Hasan, 2002; Chaudhry and Devarajain, 2006). For the state to sustainably reform administrative machinery, it must invert its policy approach and assess development from the perspective of the service delivery recipient. As mega cities continue to grow, the revenues required to sustain capital intensive development, to service a small percentage of city dwellers, will fall. There is a need to transform the city into a provider of basic services and participant in human development rather than simply drive of physical development. State actors need to join non-state actors in considering the voices of the poor, recipients of aid and services (IIED, 2001). A 'development from below' approach stresses the efforts of civil society actors and lower tier state actors, who are situated in marginalized communities. If the lower tier is valued and community service delivery efforts are recognized, replicating and facilitating such initiatives through local government departments will become a policy priority. Differentiating between upper and lower tier capacities and capabilities (state and non-state) is critical to this process, as is comparison between the functional role of state and non-state service delivery actors to the informal sector.

2.6.1 Comparisons across South Asia

My survey of the interdisciplinary literature illustrates the vulnerability of South Asia's mega cities to the adverse impacts of Neoliberalism-led development. More comparative research about state engagement of the informal sector across the region will help clarify which key variables that underpin mega-city governance and urban management.⁴³ Researchers have long been aware of the problems looming over large urban cities and mega cities (Fava, 1968), but little comparative policy research has focused on solutions. The rate of growth of the informal sector in South Asia makes this kind of examination urgent, particularly from an integrated social and economic policy perspective. If the poor

⁴³ Studies across Latin America, Africa and East Asia point to the need for more attention to urban issues and challenges. However, due to the lack of policy attention and donor interest, these governance concerns are often overlooked and private sector solutions touted in the literature by upper tier state and non-state actors.

continue to lack access to basic services, mega cities will be at increased risk in terms of security and health.

While several state managed services have been cited as critical to human development, only a few studies have assessed their resilience in mega city settings. Kamal Siddiqui's regional survey of service delivery across South Asia's mega cities demonstrates the critical linkages between housing and shelter, water and sanitation, and solid waste management (Siddiqui, 2004). His thorough examination of service delivery informs the urban research agenda with specific determinants (variables) and constraints to service delivery outcomes. The incorporation of his findings into South Asia's mega city research agenda could in turn, inform the analysis of power relations and optimal administrative relations. Siddiqui's work is relevant for my study as he identifies specific variables for comparative analysis as well as focal points for research on the effects of concentrated power relations.

If service delivery extension to the informal sector is neglected, the destabilizing forces that undermine South Asia's administrative development will only threaten the already fragile levels of urban security. The long-term social and economic benefits of inclusive development make it logical to engage the informal sector and employ its labor pool. Given the gaps between mainstream and critical policy research and the responses of policymakers to growing urban problems, it is likely that the informal sector will continue to struggle with limited recognition and support. Their deplorable and marginalized conditions will compel them to support and subsidize the economic machinery of urban development at wage levels far below human development indicators. Similarly, if lower tiers of the state and local service delivery providers continue to experience marginalization by upper tiers, they may also be forced to withdraw from engaging the informal sector, overwhelmed by neoliberal policies (Batley, 2006). The emergence of combined state/non-state providers of services may become more common in extending basic services and support to the urban poor. However, the lack of coordination and accountability may result in inefficiency and lower returns on donor investment, so the persistence of state neglect and the avoidance of critical reflection about policy and program engagement of the informal sector will only polarize mega cities and lead to more insecurity and impoverishment.

2.6.2 A note on the Policy Stages Approach

Upper and lower tier state actors have complex effects on local government service delivery. To organize these within the context of each country, a holistic yet policy-specific heuristic will be beneficial. Previous policy research designs have benefited from using the 'policy stages' approach (Deleon, 1988). Criticisms notwithstanding, one of its weaknesses is of great benefit within the South Asian context: its largely legislative, top-down approach matches the centralized policy development behaviour exhibited by state decision-makers in postcolonial countries. By disaggregating the policy cycle into a series of separate and defined stages, we can focus on key issues of resource allocations and development, while avoiding the distractions of other issues. While the policies themselves are not central to the study, the research will benefit from the 'policy moment' from each of the various bodies of literature as follows.

First, the field of critical political economy, and the balance of power relations across state and market, will inform the framing of the initial stages of policy development and formulation. Elitism often influences policy development and/or implementation; the content and objectives of policies are influenced by class interests. At the early stages of policy development, upper tier power and policy development dynamics are often inconsistent with realities faced by the lower tiers of the state. The lack of resources and absence of authority and accountability outlined in these policies also speaks to the different contexts of upper and lower tiers of the state.

Second, research from the field of comparative public administration reveals the fragmented context within which implementation takes place: a number of agencies and departments have overlapping mandates and legacies from political administrations and ideological periods. As various agencies stake a claim in implementation, their organizational behaviour and relationships with adjacent departments shape their role and position. Because resources are scarce, many departments impose constraints to initiatives to ensure their inclusion. This is particularly the case with donor-funded initiatives, where resources are infused into programs and sub-projects. Their positioning and relationships with one another emerges quite sharply during the implementation stage, and reflect the post-colonial commonality in South Asian countries.

Finally, research from the field of development studies has revealed the lack of real-world impact by state policies. More descriptive contemporary development research has focused on the realities faced

by all urban dwellers, particularly the poor. However, when non-state actors are engaged as proponents and supporters of the informal sector, they actually advocate for service delivery by lower tiers of the state. In terms of the policy stages approach, evidence of service delivery by non-state actors informs our understanding of policy implementation and service delivery to recipient communities. The positive outcomes of community engagement and self-help designed infrastructure development can serve to specify the required level of state resources during the implementation stage of service delivery. For example, resources are required to mobilize informal settlements and map service delivery connections across these communities. Such resources are rarely even identified by state actors. Non-state service delivery models are therefore critical to understanding how service delivery implementation to informal settlements is to be designed as well as resourced. A deeper examination of these arrangements and processes will highlight the need to re-evaluate top-down policies.

While each of these bodies of literature is at least somewhat relevant to each stage of policy making, their perspectives and results will vary in relevance by the various contexts and city settings. These differences will help clarify how a range of 'cross-cutting variables'⁴⁴ will affect policy settings. This research will not apply the usual methodologies employed by the policy stages heuristic, but the findings will be informed by policy commentary about South Asia's mega cities. Given the struggles of mega cities, informal sector policies will benefit from the examination of the stages. Finally, the results of the stages heuristic s may also encourage more interdisciplinary approaches to local government machinery and assessments. The need for interdisciplinary policy research on service delivery is urgent. The complex post-colonial context will benefit from a comparative approach across the three mega cities of South Asia. A critical mass of alternative service delivery models is in need of assessment and attachment to policy capacities at the local government level. A methodology that allows for the gathering of information to address the interdisciplinary research question will also have to be designed with data types that are familiar to all three disciplines. I now turn to the explanation of the multi layered methodology in the next section.

⁴⁴ The use and measurement of a series of 'comparator variables' will be discussed more fully in the Methodology section.

3 Methodology and Sources

Conducting administrative research in a region characterized by weak institutional frameworks and volatile political forces presented several methodological hurdles. In order to address challenges such as data collection and comparative analysis; I employed qualitative techniques common to research in adverse environments (Jervis, 1998). These techniques are especially relevant given the effect that colonial and neo-colonial development has had on intergovernmental relations in all three mega cities. Their shared experience with colonialism also makes their historical and regional comparison useful to policy literature (Pierre, 2005). The comparative policy approach is employed by researchers to isolate specific variables across contexts which share a similar level of complexity. This is especially applicable given the variance in data sources across urban settings and the challenges to comparative public management (Ewene and Pawles, 2006). In order to compare the three mega city contexts, I combined the qualitative research approach with the case study heuristic. The case study heuristic is employed to describe a specific instance where observations result in a particular outcome. Once data and information is gathered, evidence from specific measures can then be triangulated for policy analysis (Leech and Onwuegbuzie, 2007). Triangulation is the use of a combination of research methods to increase the confidence in an observed relation. For instance, my study employed triangulation by incorporating independent sources of evidence (surveys, interviews, secondary data sources and observations) to increase confidence in a particular causal relation. It is used by researchers to link observations from various sources to a particular hypothesis. There is a growing trend towards triangulation in comparative public policy. In order to address concerns with ‘loose claims of causality’, researchers emphasize the need for rigorous and specific approaches to linking relations between dependent and independent variables (Wolf, 2010). This chapter introduces these terms as elements of my research design and methodology. I also respond to the limitations of these specific techniques, later on in the chapter.⁴⁵

⁴⁵ The methodological limitations and constraints of this kind of research are beyond the scope of this dissertation. Nevertheless, this section will briefly highlight the complexities as highlighted in the literature. The important point is the need to assess the approaches and

This chapter begins with a discussion of my research design and rationale for using the qualitative methods and case study approaches. I continue by explaining the service delivery context, and the value of exploring the regions municipal history and the emergence of informal settlements (Grix, 2002). In the first subsection I outline the qualitative components of data collection which consist of a historical assessment of each mega-city along with findings from open-ended, semi-structured, face-to-face interviews that I conducted with state and non-state actors. The qualitative sub-section concludes with the rationale for examining a positive and negative case study from the most documented of service delivery contexts: water and sanitation. In the next subsection, I discuss the five comparator variables, which serve as determinants for service delivery outcomes across the three mega cities. The chapter concludes with an explanation of how categorizing findings through comparator variables and case study 'process tracing' enables policy comparisons across service delivery contexts of mega cities. 'Process tracing' is an analytical tool used for drawing descriptive and causal inferences from diagnostic pieces of evidence. It is often understood as part of a chronological sequence of events or phenomena (Collier, 2011). The final section specifies the data sources I drew upon during primary and secondary research. Throughout these subsections, I elaborate on the indicators that I used to differentiate between the roles and responsibilities of lower and upper tier state actors (Howlett and Ramesh, 2006).

3.1 Research Design

The interdisciplinary literature outlines the effect of colonial and Neoliberal inspired development policies on mega-city development. I begin each mega city chapter with a historical overview of the impact of colonialism on that urban setting. This approach allows for the identification of the dominant themes that emerged from the qualitative data (Creswell et al., 2003). In each mega city research context,⁴⁶ I drew on a number of data sources to measure state and non-state efforts to facilitate

methodological considerations of developing city policy research. Ignoring policy analysis and discussions in mega cities will only further erode the development administration agenda in theoretical and practical terms.

⁴⁶ Each mega-city is surveyed for information on upper and lower tier state and non-state efforts regarding water and sanitation service delivery. In each mega city, I also buttress the findings in water and sanitation with observations from the housing and shelter as well as solid waste management contexts. Although my research examines the water and sanitation service delivery context in each of the three mega-cities, the analysis benefits from observations in the other service delivery contexts. In fact, I expect that behaviors between upper and lower tier actors are similar in different service delivery settings.

service delivery to informal settlements. I bound these comparisons across mega cities using a set of established comparator variables, which I will discuss later. My analysis triangulated evidence on the condition of service delivery with differences between the functions of upper and lower tier state and non-state actors. This analytical approach allowed me to link qualitative sources and tests for validity within and between contexts (Creswell et al., 2003). In other words, I compared evidence of upper and lower tier actors in extending service to informal settlements across the three mega cities. I concluded each mega city chapter with case studies that illustrate the influence of comparator variables on service delivery outcomes. In particular, I contrasted the roles of state and non-state actors in engaging informal settlements and influencing successful service delivery outcomes. I will now explain each of the approaches in more detail.

The comparative approach explores differences in data types across the regions' mega cities and service delivery contexts. The common political, cultural, social, institutional and historical aspects of the three mega cities support their comparison and the outcomes of 'policy reform' (Peters, 1996; Pierre, 2005; Siddiqui, K., 2006; Gupta, 2012). The comparative approach is useful for analysis at the sub-national level, where small sample sizes, limited observations, the inability to code and spatial unevenness require mitigation (Snyder, 2001). The approach is also valuable to the South Asian urban contexts where qualitative and quantitative data are discontinuous and fragmented (Greene et al., 1989). I employ the qualitative approach to survey the service delivery landscape of the three mega cities and group findings by comparator variable. Insights from the case studies further demonstrate the differences between upper and lower tier state and non-state actors in extending services. Contributions to the literature concur that findings are enriched when gaps between contexts are bridged by insights from multiple sources (Brennen, 1994; Greene et al., 1989). These insights are central to developing an understanding of the complex social and cultural features of comparative policy analysis in developing countries (Hay and Wincott, 1998). The comparative approach is useful when service to informal settlements is used as a methodological approach to dealing with critical political economy issues (Brenner et al, 2011). The comparative approach assists in framing municipal policy issues in developing countries which are influenced by multiple stakeholders and interests (Siddiqui, 2005; Porter and Shortall, 2008). The approach allows for the comparison of interview-based data with other qualitative sources, such as unpublished research reports, papers, and civil society studies.

Critiques of the comparative approaches have raised several concerns, to which researchers working in the field of policy research have responded. The main criticism is regarding the validity of the 'triangulation' of data. Other concerns include the possibility of overstating claims, lack of rigor in design, sampling error, faulty analysis, poor reporting, financial commitment, and time requirement. Proponents of comparative methods counter these arguments by stressing that the key to conducting comparative research is developing a clear understanding about the issues involved, before making claims about validity (Buber et al., 2004). Hesse-Biber (2010a) responded to such critiques by analyzing the evolution and applications across a range of settings. The importance of communication, stakeholder inclusion, listening with reflexivity, and challenging assumptions when developing a rigorous research design are critical components of this approach (Hesse-Biber, 2010a).

I have addressed these concerns through the different sub components of my research design. My use of the comparative approach aligned qualitative data between the various mega cities and data sources. I triangulated data within and between mega cities and 'paradigms' to ensure that comparisons were made between similar stakeholders⁴⁷. I also employed comparator variables to categorize a defined set of determinants that shape the outcomes of service delivery extension to informal settlements. By carefully categorizing observations of state and non-state actors in each of the mega cities, my findings have assembled the characteristics of positive outcomes. Although there are relationships between the various comparator variables, I define them in the broadest sense to analyze the roles of upper and lower tier actors in service delivery. This approach also ensured that my analysis did not overstate claims (Bazeley, 2004). The qualitative aspects of my research design allowed me to cross-reference historical and comparative data with semi-structured interviews. The inclusion of unpublished civil society reports, government documents, donor reports, budget figures, and social and economic statistics is recommended as a means of strengthening claims (Hesse-Biber, 2010b). Finally, the contrasting of case

⁴⁷ My research examined the frameworks and arrangements that support service delivery to informal settlements. Because my research is concerned with the differences between upper and lower tier actors, I have avoided a deep discussion of the comparator variables and the water and sanitation service delivery context. The international development and multilateral institutional policy literatures have substantial and lengthy contributions which should be referred to. Because my study seeks to inform the requisite policy frameworks that enable municipal agencies to extend service to the informal sector, my methodology outlines the rationale for framing the examination in policy terms and engaging specific state and non-state actors and data sources.

studies across each of the three mega cities illustrated the key features of state/non-state engagement that influence service delivery to the informal sector. I will now discuss how I have arrived at the use of these 'crucial cases' as part of my research design.

The final component of my research design is the case study approach, where service delivery to two informal settlements is examined in each mega city. Each case study detailed the specific experiences of informal settlements in obtaining service delivery in cooperation with non-state actors. Service delivery outcomes are deemed as successful where the informal settlement is able to establish water and/or sanitation services through state and/or non-state actors. Service delivery outcomes are deemed as unsuccessful where the informal settlement is unable to establish water and/or sanitation services despite the engagement of state and/or non-state actors. I used the experiences of successful and unsuccessful outcomes to contrast the roles of different state and non-state actors in extending services to informal settlements. Field case study research expands on the direct engagement of dynamic actors in a non-predictable environment (Singleton, R. and Straits, B., 2005). I used this approach to explain interactions between state and non-state actors in two informal settlements within each of the three mega cities (Ragin, C. and Becker, H., 2005; Palys, T. and Atchison, C., 2008). This approach has helped to establish a level of conceptual validity by illustrating the influence of specific variables being analyzed (Yin, 1981; George, A. and Bennett, A., 2005). Specifically, groups of 'comparator variables' described service delivery capacities between various actors in each of the case studies. These variables served as building blocks for assessment in the small number of cases (Ragin, C. and Becker, H., 2005; George, A. and Bennett, A., 2005).

The case study approach allows for the examination of 'causal mechanisms' across each of the mega-city service delivery contexts (George, A. and Bennett, A., 2005). Causal mechanisms can be defined as the pathway that a process follows by which a particular effect is produced (Seawright and Gerring, 2013). Employing causal mechanisms is indispensable when explaining third world development dynamics (Bradshaw and Wallace, 1991). In this study, each case study demonstrates how comparator variables influence non-state efforts at extending service delivery to informal settlements (Palys, T. and Atchison, C., 2008). This method is referenced in the literature regarding qualitative and quantitative options to case study selection (Seawright and Gerring, 2013; Bennett and Elmann, 2007; Yin, 1994). The collection of data at the local level about varying levels of success in service delivery and support to informal settlements, has allowed for 'within case' comparisons of constraints and enablers in small-n analysis

(Mahoney, 2000). Such 'within case' comparisons have generated policy analysis with respect to the ability of actors to extend service delivery (Ragin, C. and Becker, H., 2005). The case study approach enables the modeling of complex causal relationships between multiple state and non-state actors (Mahoney, 2000). For instance, I employed 'process tracing' to outline the relationships between state and non-state actors in arriving at a means of extending service delivery. This approach has been employed across the literature to conceptualize the relationship between various actors (Palys, T. and Atchison, C., 2008; Collier, 2011).

The case study approach is also the subject of criticisms across the research methods literature. The case study approach has been criticized for its vulnerability to selection bias as well as representativeness (George, A. and Bennett, A., 2005; Flyvbjerg, 2007). Selection bias in my study is addressed as each pair of mega city case studies were selected based on completely different outcomes. In other words, non-state actors selected case studies where service delivery experienced different outcomes. The influence of each comparator variable on each instance of service delivery outcomes was then assessed. The representativeness of the case is addressed as non-state actors directed the selection of a 'typical case' where service delivery is extended or denied to a community. The bias of the researcher is thus removed from the selection process as non-state actors are selecting the cases. The assumption is that across contexts and mega cities, there will be some similarity and parsimony nested within the explanatory richness of service delivery extension. This will provide insight into key variables that driven service delivery extension (Yin and Heald, 1975).

The 'dual approach' to case study selection is logical for my study, given that it enriches the data that has been categorized by comparator variables and compared across settings (Bennett and Elmann, 2007). By contrasting service delivery experiences between informal settlements, I assessed the capability of state and non-state actors within and across cities for service delivery effectiveness. This use of 'within case' analysis is commonly used within the policy research literature (Palys, T. and Atchison, C., 2008). In each mega-city, I defined the 'class' of events for case study examination based on the experiences of non-state actors who frequently facilitate service delivery extension to informal settlements. This method of selecting 'crucial cases' maintains case study objectivity (George, A. and Bennett, A., 2005). Each NGO provided two examples of service delivery extension to informal settlements. In one case, the effort to extend service delivery was successful. In other words, the informal settlement and its supporters in civil society were able to obtain service delivery from the

state. In the other case, the effort was either unsuccessful or has experienced delays. In this unsuccessful case, a number of constraining factors has prevented the informal settlements' CBO and its civil society supporters from obtaining recognition or service delivery from the state. In our two cases, I am engaging the facilitating non-state actors for their experiences in engaging informal settlements and obtaining service delivery. By doing this, I am isolating comparator variable (civil society and donors) for analysis in successful and unsuccessful outcomes. It should also be noted that in the case of Mumbai, I drew on a larger set of information (the broader experiences of toilet block implementation in Dharavi) for the unsuccessful case study to make up for my inability to visit the mega city. Although the scale which I apply to Mumbai is larger than the other case studies, it allows me to make claims on the roles of specific comparator variables. Before I outline the nature of the data and sources, I will now explain the three service delivery contexts of study.

3.1.1 Service Delivery Contexts and Actors

In this subsection I outline the main service delivery context and describe the involvement of upper and lower tier state and non-state actors in extending service delivery to informal settlements. Although an exhaustive discussion of the water and sanitation context is beyond the scope of this study, I will mention the key features as they pertain to the current urban policy environment.⁴⁸ My objective at this juncture is to emphasize the importance of this service delivery context to informal settlements.

Water and sanitation services are central to human development and governance in mega cities. The interdisciplinary literature establishes this service delivery context as key to human development in urban settings (MUH HDC, 2009; UN Habitat, 2012; UNEP 2012). The ultimate responsibility of ensuring the provision of water and sanitation services (and managing the resources of land, water and waste) lies with state. However, the state has been found to be unwilling in its engagement of informal settlements despite interventions by civil society, multilateral, technical aid, and advocacy based

⁴⁸ The urban poor constitute a growing proportion of mega-city populations. However, their contribution is rarely recognized beyond the inexpensive inputs into sophisticated and organic economic supply chains. This chapter explores some of those benefits and ties policy interventions at local levels to greater returns on state policy realization at higher levels of government. To put it simply, a healthier, more empowered urban poor will ensure resilient labor pools in the future.

organizations (Bartlett, 2003).⁴⁹ Most non-state led initiatives are based on some level of service delivery extension through municipal capacities.⁵⁰ Non-state initiatives are also found in the housing and shelter as well as solid waste management sectors, which have also been the focus of support by both state and non-state actors. I drew experiences from these two sectors, where policy findings have generated insights on improving the extension of service delivery. Despite the similarities in models, the actual arrangements between state and non-state actors are discontinuous. My inquiry into policy experiences serves as a form of intervention for policy reform (Koliba and Wathrop, 2007). Hence, these service delivery contexts are valuable in exploring the frameworks formed between specific state and non-state actors.

I used observations from the water and sanitation service delivery context to anchor the findings from the comparative approaches. This approach enables a broad analysis of relevant data, in a non-sequential manner. The use of the qualitative and comparative approach strengthens their power than if each method were to be employed on its own (Creswell, J.W. et al., 2003, 2009). The examination of state and non-state based efforts to engage informal settlements is discussed in the literature as beneficial to organizational development and rights based frameworks (Sansom, K., 2002; Siddiqui, K. et al, 2004; UN Habitat, 2007). I relied on a number of academic and non-academic policy sources to establish the historical and comparative state of municipal services across the three mega-city service delivery contexts and used snowball sampling to recruit key informants for interviews (See Appendix). My primary research questions mirrored the approaches employed in the field of community-state engagement (Greene et al., 1989; Xerez, R. and Fonseca, J., 2011). This framework of service delivery contexts and actors was the basis for the comparison of capabilities of upper and lower tier state and non-state actors in extending service delivery to the informal sector. The following sections describe the

⁴⁹ Land use planning and zoning is the responsibility of the state. Water supply is part of a public good and is also the responsibility of the state. Sanitation affects health and the environment, which also involves state responsibility. Finally, even when private actors are contracted out to collect waste, they obtain and renew that contract with the state.

⁵⁰ Karachi's self-help Community Development Network (CDN) has leveraged housing and water and sanitation efforts to achieve service delivery to the urban poor. The North Sindh Urban Services Utility is based on the coupling of solid waste management, water, and sanitation services, with linkages to storm water management. This approach is quietly accepted by the Karachi Water and Sewerage Board (KWSB) in Karachi, although formal relations with NGOs are not as loudly communicated or broadcast.

various sources of qualitative data that I drew upon during the course of primary and secondary research.

3.2 Qualitative Research

Qualitative data accounts for the majority of information gathered in comparative approaches to the policy sciences (Mahoney, 2007). I relied on qualitative data within each of the mega-city service delivery contexts for a number of methodological reasons. The foremost reason was underdeveloped institutional frameworks and the absence of transparent reporting mechanisms. This makes the collection and comparison of non-qualitative data at local levels of government near impossible. My study relied on episodic as well as running records compiled from state and non-state actors to assess service delivery outcomes (Johnson and Reynolds, 2012). I incorporated historical records; time bound studies and in-person interviews into the results of each service delivery context. Although some records were available online, the majority of episodic accounts were obtained through in person interviews I conducted with state and non-state actors. I used running records where possible, but found the majority of relevant information in isolated, time bound form⁵¹. This presented a few difficulties in measuring the influence of comparator variables on actors over multiple years. For instance, while civil society and donors in the urban water sector have to generate annual reports and progress updates on a regular basis, there is discontinuous information from state actors such as utility service providers for the same periods.

In order to address differences in episodic and data types between sectors, I have drawn information from a number of independent and yet similar data sources.⁵² In order to address the variances in data types found across the three mega cities, I used three types of qualitative research (historical, face-to-face interviews, and case studies) to categorize the data. This subsection describes the various elements of my qualitative data approach. I begin by outlining the historical and comparative research approach and identifying the specific data sources. I continue with a description of the semi-structured interviews

⁵¹ Much of this is the result of non-state initiated research (private sector consulting reports, INGO and NGO research).

⁵² For example, I have incorporated housing and shelter data from Slum Dwellers International (SDI) who have long been active in slums across Mumbai and Dhaka. I also engaged WaterAid, an INGO that funds water supply distribution projects by NGOs in Karachi and Dhaka.

with various state and non-state actors who I interviewed. I conclude with a description of the case studies and the various mega city water and sanitation service delivery contexts I examined.⁵³ I also discuss how contextual data was grouped in comparator variables to form a framework for comparing arrangements across the three mega cities. I now turn to the first of the three components, the historical and comparative overview.

3.2.1 Historical and Comparative Overview

Historical data is a key component of South Asian scholarship and provides insight into the development of mega cities and the exclusion of informal settlements. Historical data, personal accounts, donor reports and state documents from public and private repositories serve as evidence of policy decisions that have shaped the colonial and post-colonial development of each service delivery context (Palys, T. and Atchison, C., 2008). I situated my policy analysis by using historical data and evidence from a number of interdisciplinary perspectives. Development researchers have expanded on the shared colonial history by exploring the coalescing of interest groups and their influence on local development agendas (Mahoney, 2004). Similarly in South Asia, political economists have explored the formation of mega cities in an era of ‘globalization’ and the dominance of neo-colonial forces on their development (Zaidi, 2001; Hasan, 2004). Social scientists have expanded upon group dynamics and through ethnographic studies, assessed constraints to their human development (Wasserman and Clair, 2011). Policy researchers have also argued that institutional reviews deserve a full examination of structure and agenda before reforms can be truly implemented (Hay and Wincott, 2008). Research across all disciplines reveals the role played by elite interests and narrowly defined agendas.⁵⁴ The result has been unplanned, sycophantic, externally driven urban development that has spurred city and class formation.

⁵³ The utility oriented nature of the water and sanitation sector attracts more policy and program attention, particularly the former from multilateral institutions and donors interested in optimizing project returns. However, the type of data that is collected is quite different. Water oriented data will focus on household connections and infrastructure availability. Sanitation based indicators, promoted more by public health concerns are concerned more with latrine usage and availability of facilities, which may or may not be connected to the utility. Because a result, the data types between these two sub sectors are different. At the other extreme are sectors which have experienced neglect. Solid waste for example, despite the efforts of civil society to create recycling and compost oriented markets, is relegated to a few private sector actors and there is a limited understanding of collection, program measurement and pricing per household for collection. Most of the information is in time bound studies and real initiatives reside in civil society efforts. The data types are therefore dramatically different.

⁵⁴ These interest groups, as outlined in the interdisciplinary research, have more impact and influence on policy development than the institutions responsible for service delivery. Unfortunately, the inability of narrowly defined agendas to be agreed upon and sustained in a medium to long term plan has stunted administrative machinery and urban development on the whole.

Over time, the policy interactions between stakeholders have excluded the informal sector from service delivery machinery.

In all three mega-city settings and service delivery contexts, a number of interests and institutions have formed complex relationships that have affected service delivery to informal settlements. These competing interests have disabled the extension of service delivery to different degrees. My research engaged both state and non-state actors and the range of perspectives and approaches to extending service delivery to the informal sector. I responded to the concerns of bias and perspectives where only 'one side of the story' is researched and analyzed, by engaging both state and non-state actors (Palys, T. and Atchison, C., 2008). Because narrowly defined agendas shape service delivery data in unpredictable ways, service delivery data is often discontinuous, hidden, and time bound. I conducted a historical review of policies and programs, institutions and critical incidents to synthesize available data and direct my secondary data collection exercise. Similar to the literature review, this approach allowed me to analyze the processes of social change, and provide depth through replication and increased sample sizes (Singleton, R. and Straits, B., 2005). It has also allowed me to reduce bias, which is characteristic of historical studies reliant on primary and secondary research (Thies, 2002). This is particularly important given the complexity of the South Asian urban administrative context. I will now outline each of the three streams of data that informed the historical overview.

3.2.1.1 Policies and Program review

Broad and overarching national and sub-national policies have been developed for most mega cities and sectors of service delivery responsibility. The outcomes of these policies, as a function of adequate resources and appropriate program design, have been mixed at best. This is not surprising, given that the legislative agendas of the regions ruling class as well as the condition of the region's lower tier municipal administrations are similar. I researched and drew evidence on the outcomes of these policies for each mega-city. Not surprisingly, I found a number of critiques regarding legislation, state policies, and program implementation from non-state actors across each of the service delivery contexts. The prevalence of non-state efforts to address the shortcomings of state service delivery to informal settlements validates the deplorable condition of state programs. Finally, I assessed policy reforms designed to engage informal settlements as a measure of the state's will and/or capability to develop relevant policies and programs. The overview of policies and programs for each service delivery context

provided a basis for comparison between mega cities. Despite the role played by civil society actors, a deeper insight emerged from an examination of the institutional framework.

3.2.1.2 Institutional Framework

The gaps between policy formulation and implementation emerge from the condition of programs and institutions at the lower tiers of the state. Policy research shows that the arrangements of departmental portfolios, program areas and funded agencies reflect the condition of inter-governmental relations, policy priorities and implementation (Pierre, 1999). My assessment of resource allocations across each mega city and its range of institutions revealed the political economy of state dynamics between the upper and lower tiers. My examination of the history and evolution of interest based activity revealed the persistence of post-colonial and neo colonial after effects. More specifically, the poor condition of administrative machinery, reflective of sub optimal resource levels, organizational dependency and subsidization from non-state actors; provided an understanding into institutional mismanagement. By looking at the institutional frameworks, I generated insights on the state of lower tier actors charged with service delivery. Unfortunately institutional transparency has been lacklustre in many of these municipal administrative contexts as data has been unavailable. Furthermore, most of these mega-city administrations have experienced bouts of social, political and environmental instability. Conversely, all mega cities have experienced periods where donor and civil society interests have aligned, resulting in large project injections and resource flows. As a result, my research has relied on periodic time bound reviews. In order to incorporate these policy ‘moments’ and events that have influenced urban development, I concluded the historical comparative approach for each mega-city with a review of critical incidences that have impacted the condition of state service delivery to the informal sector.

3.2.1.3 Critical incidents

State institutions are tested during periods of upheaval and crisis. The origins of such periods of disruption range from political regime change to environmental disasters. All three mega cities have experienced periods of pronounced insecurity over the last two decades. Flooding resulted from the seasonal monsoons across each city with effects on service delivery. Physical insecurity, social unrest and political regime change are among the most obvious examples of critical incidents which mark the histories of these cities. In most cases, there has been an increasingly harsh and critical response about the inability of institutions to respond to the needs of citizens. I included the effect of critical incidences on informal settlements, along with the state response in the historical overview. I categorized critical

incidences as political, social, economic and environmental events. My review of these incidents has helped to establish a map through which 'process tracing,' cross referencing, and triangulation of data with semi-structured interviews can occur (Singleton, R. and Straits, B., 2005). As these events reside within the historical memory of the mega city, I had to resort to a commonly used method for gathering recent information, the semi-structured interview.

3.2.2 Semi-Structured Interviews

In order to bring the analysis of municipal service delivery machinery into the present frame of reference, I conducted semi-structured interviews with key state and non-state actors (See Appendix). The semi-structured interview builds on the historical analysis of service delivery with insights from state and non-state actors (Sturges and Hanrahan, 2004). Structured and open ended questions allow respondents to provide their insights above and beyond key questions (Johnson and Reynolds, 2012). In a process known as 'funnelling,' questions begin with participant experiences on policy effectiveness and ended with recommendations on context specific policy solutions to improving service delivery (Palys, T. and Atchison, C., 2008). I used open ended questions to probe respondent experiences with inter-governmental relations, informal sector engagement, and the roles of state/non-state service providers in extending service delivery (Siddiqui et al, 2004). I assembled insights from key informants, technical experts, sector stakeholders, and CBO actors from informal settlements to assess service delivery experiences and arrangements that optimize outcomes (McCormack, 2000). There are a number of benefits and drawbacks to the use of semi-structured interviews, which I briefly discuss in light of the challenges and limitations of data availability in the South Asian mega-city service delivery context.

As the study area is characterized by diverse and discontinuous data sources, establishing a robust framework for interviews was challenging. Interview participants in developing countries are a rich source of institutional and policy history, given their social interaction and mobility across sectors⁵⁵

⁵⁵ State and non-state actors are interested in elevating the profile of their efforts and engaging with a researcher who is also member of the not for profit community. Similarly, state actors respect the civic service experience of the researcher and have also been forthcoming with information about their challenges and issues

(Palys, T. and Atchison, C., 2008; Lilleker, 2003). Furthermore, in polarized administrative research contexts where the voice of lower tier state and non-state actors is rarely represented, face to face interviews ensure their inclusion. Similarly, state and non-state actors are ready to identify key informants and interview candidates (Palys, T. and Atchison, C., 2008). This is especially the case with donors and civil society actors whose experts are mobile and dispersed among different communities (Johnson and Reynold, 2012). Finally, the policy research setting requires the expertise of the researcher as well as the respondent, in order to fully address the research problem and question (Rapley, 2001; Palys, T. and Atchison, C., 2008). Both 'key informants' and 'elite insiders' possess information and insights that are valuable to the analysis of the research question (Johnson and Reynold, 2012). I used the interviews to document interactions between upper and lower tier actors, which have been triangulated in the analysis section, the result of the open ended approach (Rapley, 2001).

A number of drawbacks exist to this approach, primarily related to the costs associated with conducting research in developing countries. The cost of conducting in country interviews is high and assumes a longer study horizon of the research regarding the mega-city service delivery context⁵⁶ (Palys, T. and Atchison, C., 2008). Nevertheless, as the analysis is nuanced and similarities to responses are subtle, having one interviewer for all of the research justifies the expense. I was able to engage policy advisors and front line bureaucrats along with sector focused donors, non-government trainers, and community based practitioners for insights about service delivery to informal settlements (Johnson and Reynold, 2012). Due to travel restrictions, I was unable to obtain a VISA to visit Mumbai. However, thanks to long standing regional partnerships developed through my work with SDPI in Islamabad, I was able to interview India based state and non-state actors in Dhaka and Karachi. I also corresponded with several non-state actors in Mumbai (Sulabh International and SPARC) and was able to interview them over the phone and incorporate representative case studies into my research. The combination of primary and secondary evidence from state and non-state actors (CBOs and NGOs) allowed me to triangulate evidence on informal settlements in Mumbai.

⁵⁶ In response, this study is an investment in a longer term research project of relationship and policy research capacity building

By assembling reflections from actors at the ‘bottom of the pyramid,’ I developed an understanding of how state and non-state actors engaged to extend service delivery to the urban poor.⁵⁷ In the next section, I describe in greater detail my research participants who I engaged across each of the mega cities and service delivery contexts. The following table outlines the categories and numbers of various interviewees and their positions within the organizations that are included in my study analysis. I was able to interview several state and non-state representatives in each mega city. Unfortunately, due to travel restrictions, I was unable to travel to Mumbai. However, I was able to meet many state and non-state actors from Mumbai at conferences, workshops and field offices in Dhaka and Karachi. In other instances, I conducted interviews with key informants over the phone from Islamabad. By triangulating primary and secondary evidence, I was then able to analyze comparator variables across all three mega cities.

Table 1 Interview Subjects

Categories of Interviewees	Number of subjects by Mega City	Position description
Upper tier state actors	Karachi (3), Dhaka (1) and Mumbai (1)	Provincial government ministers and senior bureaucrats
Lower tier state actors	Karachi (5), Dhaka (3) and Mumbai (1)	Water and Sanitation Authority directors, managers and engineers as well as municipal officials
Non-state actors (Donors)	Karachi (3), Dhaka (3) and Mumbai (3)	Multilateral and INGO program officers and managers
Non-state actors (NGO)	Karachi (6), Dhaka (6) and Mumbai (3)	NGO country directors, program officers and field staff
Non-state actors (CBO)	Karachi (5), Dhaka (7) and Mumbai (4)	CBO leaders and members

⁵⁷ The work of CK Prahalad has been instrumental in bringing to light the potential and impact of stakeholders in development contexts to contribute to societal well-being. An unfortunate by product of this discussion has been that the majority of the ensuing discussion has been dominated by the relationship between private actors. State and non-state engagement and the creativity that can result from solution development have been neglected. This study seeks to re appropriate the discussion within the public-community framework.

3.2.2.1 State

State actors can provide an inside perspective regarding the forces that influence policies and programs that support service delivery. I was able to interview a few informed upper tier state actors (provincial ministers and senior bureaucrats) who have a broader view of the policy landscape. While these upper tier state actors have a proven capacity in policy formulation, their knowledge of ground realities and policy effects on informal settlements are limited. Lower tier state actors on the other hand (departmental directors, managers, engineers and municipal officials), are more exposed to day to day operational realities. Some of the 'street level bureaucrats' are in tune with the condition of informal settlements. I was able to interview several water and sanitation directors and managers who have a clearer 'view of the street' as compared to their upper tier state counterparts. Unfortunately, the lower tier state actors lack the institutional frameworks or engagement to inform higher tier policy makers as to the limitations and condition of service delivery. They are mired in an environment of constraints despite having an informed perspective on policy effectiveness at the program level. The constraints to lower tier engagement of the policy process are attributed to the myriad of elitist agendas and inter-departmental power structures. In reality, upper and lower tier actors probably engage non-state actors more than they do each other, which make the inclusion of non-state actors even more important (Peters, 2004). I have been able to include representative voices from upper and lower tiers of the state in my research. As discussed earlier, I have also triangulated interview data with secondary research and non-state actors to increase confidence in causal relations.

3.2.2.2 Donors

The most dominant 'non-state' actors to South Asia's mega-city policy and program delivery context are the financial donors. The larger, multilateral institutions (MLI) are focused on larger capital intensive projects which are part of broad economic and infrastructure development agendas. MLIs will engage upper tier state actors on an ongoing basis and wield as much (if not more) power as state policy functionaries (Bello, W., 2012; Khor, M., 2011). Their activities have various effects on service delivery to

informal settlements, more so than the service delivery machinery itself⁵⁸. The smaller, technically oriented aid agency is either country program driven or sector specific. I was able to interview many program officers and project managers from each mega city on their activities. These donors are focused on key sectors of service delivery improvement and recognize in part, the shared role of state and non-state actors. An excellent example is Wateraid who document field experiences and narratives from social workers mobilizing communities in the field (Wateraid, 2012). Where possible, they act as political stakeholders for specific issues and engage in cross country advocacy and policy research. Taken together, their project portfolios form one half of development objectives and initiatives. Their funding models are smaller than their MLI counterparts and they wield less political power on the international stage. Participants from both groups of donors have been engaged for interviews. Although I was unable to travel to Mumbai, I had the opportunity to interview India based donors in both Dhaka and Karachi. It should also be noted that I engaged those donors who are actively involved in facilitating service delivery to informal settlements. As such, all nine donors are active to some degree in the other mega cities. Donors as a whole have been both challenged and engaged in recent years by civil society actors. I now turn to outlining and describing the relevance of this group of non-state actors.

3.2.2.3 Civil Society Organizations (Non-state actors)

South Asia's civil society organizations have grown to encompass a wide range of development related activities. They include, in the broadest sense, International Non-Government Organizations (INGOs), domestic Non-Government Organizations (NGOs) and the more local Community Based Organizations (CBOs). I focused on engaging those civil society actors involved in the service delivery sectors and mega cities of interest. I was able to interview several NGO actors as well as CBO actors from each of the three mega cities. The larger INGOs behave as donors and fund specific NGO projects by lending knowledge and technical expertise to service delivery extension to the informal sector. The more domestic NGO which operate nationally with offices and networks in one specific region or country. Finally, there are the representative CBOs which are embedded within the informal settlements themselves. I engaged

⁵⁸ Large MLI funded transportation and land development projects will contribute to evictions and precarious habitations among the informal sector, rather than rooting and establishing their human development.

the more technically and socially aware NGOs that facilitated engagement between state and CBO actors to the informal sector. I corresponded with NGOs and CBOs from Mumbai and was provided with documentation on case studies and report documentation. Similarly I interviewed those CBOs who are engaging NGOs for service delivery assistance across each of the three mega cities. Their cooperative and often collaborative efforts provided a front line perspective about the realities of service delivery⁵⁹. Their insights support the qualitative analysis and interdisciplinary policy literature, which provides a range of insights about factors that affect service delivery (Siddiqui et al, 2004, Umeh and Andranovich, 2008).

I have cross-referenced responses from state and non-state participants with historical data to assess policies and service delivery program machinery to informal settlements. For example, I asked civil society actors about the accountability and transparency elements of service delivery programs that have been initiated in the past. Similarly, I asked informal settlement dwellers about the role of upper and lower tiers of the state in responding to their requests for state services. I noticed that the responses from upper and lower tier state actors generated insights into issues of power, control, indifference and neglect across the various service delivery contexts and programs. Civil society actors and CBOs accounted for the majority of the interviewees as they have been more actively engaged with informal settlements and their constituents. Most of the informal settlement dwellers interviewed are members of their local CBOs. Evidence from different service delivery contexts (between historical overviews and semi-structured interviews) addressed the dynamics between upper and lower tiers of the state and the means by which service delivery programs can be improved to informal settlements. However, both historical overviews and semi-structured interviews are detailed, time bound and context specific. The case study method provided me with a detailed and descriptive narrative of service delivery experiences. In order to access this detailed narrative, I engaged a group of technically oriented

⁵⁹ South Asia's state and non-state actors are increasingly familiar with the range of research efforts (academic and non-academic) and inquiries that incorporate them as subject matter. My state and non-state background will enable me to engage interview participants in policy discussions from both a practitioner and academic perspective allows for trust building and relationship development with stakeholders. In an environment built on social engagement and trust, this is invaluable in obtaining deeper and more honest responses to questions.

civil society actors for their experience of service delivery extension to informal settlements. Let us now turn to the last instrument of the qualitative component of this dissertation, the case study.

3.2.3 Case studies

In collaboration with civil society actors, I identified six specific case studies as ‘crucial cases’ for analysis (Gerring, 2007). I define successful cases as those where water and sanitation service delivery is extended from the state to the informal settlement. I define unsuccessful cases as those where the extension of water and sanitation services was constrained and the informal settlement was or continues to be unable to engage the state and obtain services⁶⁰.

Table 2 Six Case Studies: Successful and Unsuccessful Outcomes of Water and Sanitation Service Extension in Three Mega Cities

City	Successful	Unsuccessful
Dhaka	<i>Kalyanpura Basti</i>	<i>Korail Basti</i>
Karachi	<i>Dost Muhammed Jungar Goth</i>	<i>Ghazi Goth</i>
Mumbai	<i>Dadar TT</i>	<i>Dharavi</i>

In Dhaka, *Korail Basti* (or *Korail slum*) was engaged by Dhastha Shasthiya Kendra (DSK) for several years and was not been able to secure service delivery extension. In contrast, *Kalyanpur Pura Basti* (or *Kalyanpur Pura slum*) was been engaged by DSK for several years. Despite multiple evictions and infrastructure destruction, inhabitants managed to obtain service delivery.

⁶⁰ As a practitioner within the water and sanitation industry, I will not pretend to simply state the meaning of service delivery. The quality, availability, reliability, supply, collection and fair billing of services must be accounted for. However, a water connection to a household pipe or community water point is universal and an essential component of service delivery. It is establishment of the connection (to a household or community) which I define as the provision of service. Given my focus on the 'arrangements between state and non-state actors to extend services, I am not concerned with the technical or financial models which would emerge from the requisite cooperation. In contrast to more technical approaches to the study of water and sanitation, the supply and pressure (determined by source water availability among other factors) and the efficiency of collection (determined by operations and maintenance resources) are excluded from my definition of what determined 'successful service delivery outcomes'.

In Karachi, *Ghazi Goth* was engaged by the Orangi Pilot Project (OPP) and developed a strong and vibrant CBO. Nevertheless, the Goth has witnessed a start and stop process of service delivery extension as political interference has constrained service delivery from the Karachi Water and Sewage Board (KWSB). In contrast, *Dost Mohammad Junjar Goth* (situated next to the city's thriving produce market) managed to obtain service delivery from KWSB with minimal facilitation from the OPP RTI.

In Mumbai, I obtained documentation from SI as well as SPARC on case studies which experienced different variables of success. *Dadar TT* was engaged by Sulabh International (SI) as one of the city's pilot community led toilet blocks. Thanks for the planning and management of SI, the toilet block has been able to sustain operating and maintenance costs. In contrast, a large number of *Dharavi's* toilet blocks have experienced repeated failure despite management by the Society for the Protection of Area Resources Centre (SPARC). While the Dharavi case study is at a larger scale, the examples illustrate the failure of top down projects which seek to promote one size fits all solutions to local design constraints. This has been attributed to interference by multiple stakeholders including both state and non-state actors.

The various case studies are situated across different socio economic and cultural contexts. However, the fact remains, infrastructure remains infrastructure, no matter the location (expand how this is validated in various case studies).

In order for the case studies to be of use to policy makers, I summarized each case study through 'process tracing' where the responses to 'events' by state and non-state actors that affect service delivery outcomes were documented (George, A. and Bennett, A., 2005). I have structured each case starting with a background of the settlement, followed by the nature of intervention (by the NGO) and concluded with the current state and next steps. The layering of each case study with primary and secondary research addressed challenges related to lack of context (Becker, 1979; Palys, T. and Atchison, C., 2008). Methodological concerns with multiple levels of analysis were addressed through the focused comparison of the water and sanitation service delivery context across a small number of cities, buttressed by a large number of observations by different actors (Denters, B. and Mossberger, K., 2006; Flyvbjerg, 2006; Yin and Kaftarian, 1997). The following types of primary and secondary data were compiled.

3.2.3.1 Primary Research

Each case study data set was framed through semi-structured interviews with key informants and onsite visits (Ragin, C. and Becker, H., 2005). These interviews outlined the current state of service delivery to informal settlements. First-hand observations and interviews with civil society representatives and practitioners provided insight into the current condition of service delivery. Similarly, semi-structured interviews with state actors and donors provided data about the priority of engaging informal settlements and 'confidence' in terms of their financing. Because the entirety of data and information about each informal settlement did not reside with active state and non-state interview participants, additional research was drawn from secondary resources.

Although my research design included plans to engage local state and non-state actors across all three mega cities, I was unable to arrange for a visit to Mumbai. The presence of entry VISAs and stamps to my native Pakistan prevented the Indian high commission from issuing me a VISA to enter India. In order to maintain a sufficient level of rigour in my research, I engaged a number of key informants who have worked specifically on water and sanitation issues in Mumbai and are familiar with upper and lower tier challenges and dynamics. The combination of secondary research and correspondence from non-state actors in Mumbai (SI and SPARC) enabled me to triangulate evidence on service delivery to informal settlements. I also engaged several donors and academics in Toronto and Montreal with critical research and perspectives on Mumbai's development.

3.2.3.2 Secondary Research

The second component of case study data was assembled through the compilation of documents and unpublished reports from state, donor, civil society and community based sources. This component of case study research established the history of service delivery to the informal sector and the policy context from which those efforts emerged (Ragin, C. and Becker, H., 2005). Similarly, state actors and donors were engaged for policy reports, consultant documents and evaluations of service delivery to those specific communities. Civil society actors were also engaged for published and unpublished works about service delivery experiences within the specific communities. Information from progress reports

was incorporated into the secondary research and analysis. Each case study compared experiences and common features of service delivery extension across the various contexts and mega cities (George, A. and Bennett, A., 2005). The triangulation of case study data with other sources within that service delivery context verifies the factual nature of the data and addresses the bias of state policies⁶¹ (George, A. and Bennett, A., 2005). In light of the historical overview and insights from the semi-structured interviews, the case studies highlight informal sector growth and service delivery demands.

Taken together, the historical overview, semi-structured interviews and case studies provided information about the dynamics of service delivery to the three mega cities. While data that I collected varied among the three mega cities, patterns between the municipalities emerge from the cross referenced and triangulated data. This was invaluable in analyzing the service delivery context in Mumbai. Process tracing across these mega-city contexts allowed me to inform valid comparisons for policy actors⁶² (Gerring, J., 2007). Similarly, it has enabled the comparison of the roles of upper and lower tiers of the state on service delivery to informal settlements.

It must be noted that a substantial amount of secondary research exists on Mumbai's water and sanitation context. This is due to the well documented work of non-state actors (SI and SPARC) and their efforts with slums across the mega city. A history of civil society interventions has also drawn a substantial amount of commentary from supporters and detractors of alternative service delivery efforts towards slum dwellers and informal settlements. Now that I have outlined the research methods, let me discuss the five comparator variables that I used to categorize primary and secondary research.

⁶¹ For example, government policies and programs from water and sanitation authorities will be compared with reports from media and civil society communications regarding water education and the success of service delivery. Documents from all sources will be analyzed in parallel to assess program success and the condition of service delivery support over time.

⁶² Programs that encourage the development of low cost sanitation solutions or potable water provision at the household/community level may experience common drivers and constraints from certain stakeholders.

3.3 Comparator Variables

The organization of my primary and secondary research was facilitated by five determinants of service delivery to water and sanitation service delivery. The review of regional policy research methodologies supports the use of these variables as determinants of positive outcomes in development administration and service delivery (Siddiqui et al, 2004; Umeh and Andranovich, 2012; OECD Tax Collection). By cross referencing qualitative and quantitative data from various state and non-state actors, I was able to bind evidence from the various mega cities to a comparative framework⁶³. The cross-cutting or 'comparator variables' that were selected are:

1. Political representation
2. Administrative accountability and transparency
3. Intergovernmental support
4. Citizen engagement
5. Donor and Civil Society activity

As these variables have been developed and employed across the interdisciplinary literature, I have addressed their application to the research contexts of interest. Moreover, these variables explore engagement between upper and lower tier actors and their influence on service delivery to informal settlements. My objective in employing each of these comparator variables was to account for as many of the factors that influence service delivery to informal settlements. Although there are relationships and linkages between comparator variables, my goal has been to categorize the determinants that influence positive and negative service delivery outcomes. They are summarized in the following table.

⁶³ Approaches across the 'Municipal North' outline the importance of tax collection and to a lesser extent, revenue collection (in light of the ideological bias regarding the role of the state) to sustaining urban services. Across the 'Municipal South', relying merely on such an approach is naïve given the lack of program leave alone policy capacity that exists at the lower tiers of the state. Nevertheless, the employment of the comparator variables categorizes common characteristics of state and non-state stakeholder in contributing to the extension of service delivery, to the benefit of the informal sector. Taken together, these actions need to be factored into policy frameworks in developing countries to ensure the appropriate balance of interventions and activities by all actors.

Table 3 Comparator Variables Summary Table

Variable and Abbreviation	Indicators to Measure or Capture
Political Representation (PR)	Role of elected officials (upper and lower tiers of state), source of mobilization (elected officials or community), source of advocacy for rights
Accountability and Transparency (AT)	Defined mandates for institutions of service delivery, regular disclosure of reports, presence of open documentation, ease of accessibility of information
Intergovernmental Support (IG)	Evidence of resource transfers and decision making authority from upper to lower tiers of the state. Evidence of policy success or failures specifically targeting the IS.
Citizen Engagement and Pro Poor Initiatives (CE and PP)	Evidence of programs at the lower tiers which enable citizens and specifically the poor, to engage service delivery providers.
Civil Society and Donor Activity (CS and DA)	Evidence of non-state actors, specifically NGOs, CBOs and donor engagement of the IS. This variable has included upper and lower tier non-state actors and evidence of their involvement with IS communities and settlements.

Source: Siddiqui et al, 2004 and Umeh and Andranovich, 2012

A lengthy discussion of where different determinants should be categorized is beyond the scope of my dissertation research. I begin each of the following sub sections by conceptualizing the comparator variable. I then proceed by discussing how different categories of the comparator variable are drawn from various data sources. Let us now turn to the first variable, political representation.

3.3.1 Political Representation

Political representation is defined in my research study as the position taken by elected officials in extending service delivery to informal settlements. Despite the representation of elected officials in urban poverty alleviation schemes, ‘pro poor’ initiatives have experienced limited success in urban settings (Siddiqui et al. 2004; Laquian, A., 2006). Where political leaders are elected by inhabitants of informal settlements, one would expect increased policy attention to service delivery concerns (Houtzager, P. et al, 2002). This has certainly been found in cities such as Kolkata, where a strong political movement applies a relentless level of pressure on the leadership class, on behalf of the urban poor, many of them within the informal sector. Political theory would assume that sufficient mobilization of informal settlements would draw support from elected officials. Secondly the ability of informal settlements to engage political leaders regarding policy priorities reflects the profile of pro-

poor programs and their actual functioning (Blair, H., 2000). In mega cities where polarized communities exists side by side, one would expect some level of support and even subsidization in obtaining access to water and sanitation related services⁶⁴.

I gathered qualitative data from state and non-state sources and grouped them within this comparator variable. Data from key informants and informal settlement respondents was used to measure the tendency of officials to formulate policies to facilitate service delivery to informal settlements. Of course, de-bureaucratization and delegation of responsibility requires political will and activism. Hence, other requisite policies are required prior to policy implementation (Umeh and Andranovich, 2004). In the absence of representation by elected officials, I also account for representation by other advocates for service delivery to informal settlements. These actors might include donors, CBOs and NGOs active within informal settlements. Although civil society activism cannot substitute for the political will of elected officials, their ability to protest and disrupt community stability is a measure of political engagement. My research counters criticisms of decentralization by pointing that that the requisite levels of empowerment of lower tier actors had not taken place. This has resulted in the failure of 'devolution' which is highlighted by many public administration oriented researchers. In fact, the lack of empowerment has resulted in ineffective decision making at the lowest levels of implementation where capacity has been lacking and managerial frameworks have been weak. I turn to this variable next.

3.3.2 Inter-Governmental Support

I define inter-governmental support as the provision of sufficient resources by upper tiers of government (national, provincial) to lower tiers (municipal) for program implementation. Preliminary research across municipal Pakistan demonstrates that policies and programs at higher tiers of the state affect municipal service delivery both directly and indirectly (Shaheen, F., 2009). Resource transfers, a foundational element of service delivery, indicates whether lower tier capacity is increased or at least sustained by upper tier policy priorities (Umeh and Andranovich, 2008). For example, upper tier policies

⁶⁴ Reduced tariffs for water, rudimentary facilities for sanitation and temporary shelters for pavement dwellers are some examples of very basic services extended to the urban poor. While they are politically cheap, they at least signal some concern for the informal urban poor.

that result in funding for lower tier departments are in an indicator for inter-governmental support. Upper tier resource transfers that follow these policies to mega-city government programs are another measure (Umeh, O.J. and Andranovich, G., 2005; Siddiqui et al, 2004). Intra-governmental support and coordination has been deemed as critical for the operation and sustainment of local government and pro-poor programs (Siddiqui et al, 2004; Laquian, A., 2006; Devas, N., 2001). As my research is particularly interested in the support for autonomous mega-city government decision making, patterns of resource transfers from upper tiers of the state are a key measure. Siddiqui et al recommend the creation of urban policy centres to address mega-city challenges and the serve a coordinating role in ensuring that stakeholder interests are balanced equitably. This measures both internal and external coordination⁶⁵.

I gathered qualitative evidence of inter-governmental relations in a number of forms. The indicators that are categorized in this variable include municipal resource transfers; inter departmental cooperation, interview responses and support from upper tiers of the state. These components of inter-governmental relations are supported by similar studies on the region which are also concerned with ongoing, stable and predictable inter-governmental relations (Siddiqui et al, 2004). Data on departmental resources, budgets and financial reports of mega-city government programs also serve as indicators of the stability of service delivery to informal settlements (Umeh, O.J. and Andranovich, G., 2005; Siddiqui et al, 2004). On the other hand, a lack of inter-governmental coordination, demonstrated by the poor management of institutional resources also appears in the interdisciplinary literature (Hasan, A., 2002). If state policy agendas are preoccupied with large projects, it is questionable what capacity would remain to scale up or replicate service delivery to informal settlements. Similarly, there should be evidence of funding models and sustainment plans for capital budgets as well as operations and maintenance budgets (ongoing). A related indicator that I used to assess the state's recognition of the need to maintain service delivery machinery is administrative accountability and transparency.

⁶⁵ While sponsorship, resource transfers and monitoring is discussed in a separate section, the coordination with different agencies in urban contexts is mentioned in this factor. This indicator is a reflection of the ability of state machinery to manage and extend service delivery.

3.3.3 Administrative Accountability and Transparency

The variables of accountability and transparency are employed in tandem to describe the condition and functioning of specific government institutions in relation to their interaction with other state and non-state actors (MUH HDC, 2012). The terms accountability and transparency are normally employed separately when referring to the roles, responsibilities, mandates, internal processes and reporting practices of organizations. I have coupled their usage in the South Asian municipal context for they both serve as indicators of administrative robustness and formalized recognition between state and non-state actors (Siddiqui et al, 2004; Umeh and Andranovich, 2008). Clear lines of accountability reduce corruption and assure citizens that policy decisions are guided by societal needs (Mehta, D., 1998). Checks and balances between elected officials and bureaucratic processes instil public confidence in state operations (Blair, 2000). Where accountability exists (e.g. departmental mandates, communications, organizational structures, procedures and protocols, etc.), citizen engagement and improved urban services results (Cavill and Sohail, 2004). Transparency represents a level of information flow between all citizens, civil society and state actors that lays the foundation for participation in decision making (Mehta, D., 1998). Transparency can also counter the tendency of some administrators to avoid engagement of informal settlements for fear of encouraging rural to urban migration (Islam, N. 2004). Where more transparency exists (e.g. information availability, service delivery reports, service standards, etc.), a more predictable level of engagement is expected (Caseley, J., 2006). Transparency In parallel with these determinants, one expects some levels of decentralization in de-concentrating, devolving and privatization with a minimum level of central control (Rondinelli, 1984). The transparency and accountability of administrative machinery that supports service delivery machinery is arguably just as important as the political leadership (Siddiqui et al, 2000).

Indicators of accountability and transparency were collected from both state and non-state sources. Accountability and transparency indicators from previous administration were also reviewed to assess the development of relations between upper and lower tiers of the state particularly in the sharing of information and pursuit of service delivery improvements. Furthermore, I regard the ability of non-state actors to comment on the condition of state machinery and engage in discussion with state actors as an indicator of state accountability for service delivery. Evidence of this indicator served to compare the formalization of processes through which state and non-state actors engaged to improve service delivery to informal settlements. Such information emerged from non-state actors engaged in the

development alternative service delivery models. Another indicator is the specificity of policies and programs for service delivery actors. Clear lines of responsibility for various actors which are agreed upon by upper and lower tier actors, serves as an indicator for accountability. Information flows are also valuable for assessing the commitment of lower tier service delivery to informal settlements. I have categorized the reporting of audited financial statements, budget documents, organizational structures, performance reporting and third party evaluations as indicators of accountability and transparency. The level of citizen engagement or pro poor engagement in service delivery is outlined in the next comparator variable.

3.3.4 Citizen Engagement or Pro-poor Engagement

The state's tendency to encourage the participation of informal settlements in the development of community based infrastructure is a measure of the state's 'willingness' to engage its constituents (Webler and Tueller, 2007; Fisher, 2005; Umeh and Andranovich). The existence of a range of pilot programs across South Asia's mega cities illustrates that a substantial quantity of social capital exists, that can be leveraged and engaged by the state machinery (Brennan, E., 1994). The success of such programs has been investigated and well documented in urban Latin America (Aguilar, A.G. and Ward, P.M., 2003). In South Asia, several programs have been championed by the visionary leadership of specific state actors, and have struggled for recognition by upper and lower tier counterparts (SKAA – Zaidi, A., 1994,). These programs, albeit underfunded and limited in their management reach, reflect a realization by state actors that a range of service delivery policy possibilities lie beyond the ability of state machinery (Sansom, L., 2008). Participation also reflects the interests of informal settlements being empowered and the avoidance of pseudo participation (Blair, 2000). There are a number of constraints that come with decentralization (Siddiqui et al, 2000). Competition between central and local governments, creation of power and privileges for local elites and the persistent inequalities between 'haves' and 'have-nots' need to be better understood in specific service delivery contexts. This promotes the engagement of community partners through decentralized models that disseminate benefits and create 'new public goods'. Social entrepreneurs can leverage these goods through partnerships at the most local levels of state and society relations. This study will profile some of these examples later on in the case study components.

Qualitative evidence of citizen and pro poor engagement takes many forms across the three mega cities. The key measure is how informal settlements have been engaged as recipients of water and sanitation

services. 'Pro poor' engagement is measured when there is some level of engagement between state and non-state actors (street-level bureaucrats) in informal settlements. Other indicators of citizen engagement include public consultations, neighbourhood meetings and outreach initiatives where state actors have engaged informal settlements. Other indicators of citizen engagement include the numbers of state projects developed through citizen engagement and 'pro poor' initiatives. Collaboration with non-state actors, particularly civil society, is common in such service delivery efforts. Hence, state engagement is measured in terms of how much responsibility the state has assumed as part of such initiatives. Moreover, once the pilot projects have reached their completion date, how much of the sustainment (ongoing operations and maintenance) work does the state assume? Because the state often follows in the footsteps of pilot projects that have been initiated by non-state actors, it is only logical to include them as a comparator variable on their own. Non-state facilitators of service delivery, namely donors and civil society actors, account for the final group of comparator variables.

3.3.5 Donors and Civil Society Role

Donors and civil society actors play a pivotal role in extending service delivery to informal settlements across South Asia's mega cities. They constitute, arguably, the most catalytic variable in urban policy development. Donors and civil society actors have increasingly extended support to informal settlements by substituting for the funding and coordinating role of the state (Appadurai, A., 2001). The motivations of these groups have increasingly been called into question. For instance, non-state actors have long been accused of usurping state programs for their own profit taking objectives. I have employed this comparator variable to differentiate between the different types of donors and civil society actors. I am specifically interested in those which recognize the limitations of alternative service delivery models and the primacy of state responsibility. Efforts by non-state actors to resuscitate state machinery defines the level of responsibility that state actors must assume in extending services to informal settlements.

Evidence of donor and civil society activity has emerged largely from qualitative data sources. Part of my primary research involved semi structured interviews with donors and civil society actors. Questions were posed contrasting their experiences with state vs. alternative service delivery to informal settlements. Additional evidence was gathered through field observations, published and unpublished reports. The response of donor organizations and civil society actors measures two behaviours. The responses of non-state actors that are not engaged directly in service delivery will reveal the dynamics

of the 'development sector' and how it is in fact undermining efforts towards engaging informal settlements. Alternatively, the responses of those donors and civil society actors who are extending state services to informal settlements will highlight constraints 'on the ground'. These will be highlighted further during the three pairs of case studies for each mega city.

The purpose of employing these comparator variables is three-fold. Firstly, the inclusion of variables that reference the interdisciplinary policy literatures has guided data collection from a range of discontinuous sources. Secondly, these variables have served to bind the evidence that has emerged from across the three otherwise disparate service delivery contexts.⁶⁶ Finally, these comparator variables serve as key determinants of service delivery outcomes as they reveal differences in the behaviours within and between variables across different outcomes. Taken together, evidence captured by these comparator variables has allowed for comparisons across mega cities and the experiences of the informal sector both as providers and as recipients of service delivery (See Appendix). In the broad discussion of efficient, effective and equitable service delivery, specific outcomes have emerged for marginalized communities (Siddiqui et al, 2000). Service delivery experiences that emerge from specific comparator variables are analyzed to inform specific upper and lower tier interventions as well as policies and program development to better engage the informal sector. In order to ensure that the right actors are pursued and engaged for data collection, the sources of information have been specified from the outset. The final section of this chapter outlines the data sources that make up primary and secondary research.

3.4 Data Sources

The 'raw data' that has supplied the research design across the mega city water and sanitation contexts and case studies; has been drawn from a number of specific sources and provide measures related to the various comparator variables. Qualitative and quantitative data sources have been identified so that

⁶⁶ While the water and sanitation service delivery context is relevant to the plight of the urban poor, it is closely followed by monopolistic trends in other service delivery contexts. The housing market is rooted in land tenure issues and is vulnerable to rising land prices. The water sector is largely manipulated by large utility multinationals. The solid waste management sector is determined by the maturation of orbiting interest groups and their ability to create markets. Nevertheless, the cross cutting variables that have been identified from the literature are common to all service delivery sectors and will serve to bind the findings that emerge from field research.

information can be gathered that accurately assesses the arrangements that underpin state and non-state engagement. I have triangulated data between primary and secondary sources allowing for comparisons across cities and contexts. Case study information has been centred on the context of most policy attention. Because the water and sanitation context relies upon the condition of municipal infrastructure and reflects the condition of long term public investment, it has formed the comparison of the two case studies from each mega-city. The comparison of responses from state and non-state sources across each of the service delivery contexts has informed the study's understanding of the dynamics that influence upper and lower tier policies and program activity in each mega-city (See Appendix).

With respect to state actors, I approached national/provincial and municipal agencies from each of the mega cities of analysis for information about pro poor policies and service delivery program engagement of the urban poor. Semi-structured interviews with state representatives were arranged off site, as outlined in the research ethics board application. Information was gathered from officers based on their comments in local media as well as reports issued to non-state actors. Qualitative and quantitative data sources were drawn upon to outline the policy history (level of political and administrative 'attention' given to the urban poor), government documentation and current condition of pro poor policies and service delivery programs that target the informal sector. Specific actors were engaged to ensure some level of comparison between the different contexts and mega cities of study. In the case of Mumbai, I triangulated service delivery evidence from non-state actors (i.e. SI, MM and SPARC), policy research organizations (i.e. ICRIER) and academic sources to make up for my inability to visit the mega city.

All non-state actors as well as several media outlets were engaged for information about pro poor policies and service delivery support/facilitation to the informal sector. Semi-structured interviews with civil society practitioners willing to participate were arranged off site (see research ethics board application). Published and unpublished reports were gathered from specific non-state actors to ensure that similarly positioned civil society efforts were measured for further comparative analysis. Qualitative information and baseline quantitative studies were assembled regarding non-state perspectives about the condition of service delivery on the ground and constraints to engaging the informal sector. While non-state actors experience a different set of constraints in engaging the informal sector, their perspectives were triangulated with those of state actors to obtain a more detailed and unbiased understanding of the service delivery contexts under examination.

4 Research Findings – Dhaka

The first of my three results chapters details findings from Bangladesh's mega city, Dhaka. I begin the chapter with an overview of Bangladesh's national policy context and challenges that have led to calls for 'municipal governance' reforms. The chapter continues with events that have driven administrative change from Mughal reign to colonial rule and finally the post-independence period. I then outline the condition of service delivery institutions relevant to municipal Dhaka. Research findings from the water and sanitation service delivery context are then grouped by comparator variable. The effects of these comparator variables on service delivery are then illustrated through two case studies that detail the roles of state and non-state actors in two of Dhaka's informal settlements. I conclude by returning to the research question and contrasting the role of upper tier and lower tier state actors in extending water and sanitation services to Dhaka's informal sector. Let us now turn to the salient points of the national context within which Dhaka has grown.

4.1 Country and Municipal Overview

Bangladesh's independence from Pakistan was followed by periods of economic expansion and institutional deterioration. The socio economic disparities which underpinned the independence movement remained unaddressed as elected administrations were faced with the negative impacts of flooding, the green revolution and a dependency on foreign aid (Ahmad and Townsend, 1998; Rahman, A., 2004; Islam, N. 2008). A donor supported economy built upon weak institutional frameworks was unable to prevent successive administrations siphoning aid to 'non development related activities'. The combination of these factors led to a divergence in development aims and allegations of corruption within central government departments (Haq and Abrar, 1999; Hossain and Moore, 1999; Ahmad and Townsend, 1998). Delays began to undermine donor community confidence, leading to calls for increased planning commission accountability, transparency and efficiency oriented reforms (Rahman, A., 2004).

A range of piecemeal approaches, ad hoc strategies and poor communication between policy making and implementing departments have stunted effective policy planning (Rahman, A., 2002; IG, 2004). National policy makers have been over concerned with upper tier ministries while neglecting the condition of municipal department operations and performance. As a result, lower tier programs have been disengaged from upper tier decision making to the detriment of urban service delivery. Efforts

towards decentralization translated projects and programs into subordinate offices, where local service providers were made to report to an executive office. This only shifted the bureaucracy to the lower tier, with program formulators creating processes separate from the disseminators (Rahman, A., 2002).

Bouts of poor governance and intergovernmental misalignment have contributed to the ineffectiveness of bureaucratic processes and a shift away from donor-state cooperation. World Bank estimates place economic losses stemming from corruption and inefficiency between \$0.5 and \$1 billion USD/year (WB, 2012). This has contributed to limited project implementation and a reduced aid utilization capacity of government executing agencies (Rahman, A., 2002). The tension between donors and state actors escalated to the point where the former have withheld funds citing a lack of progress while the latter claim that delays in disbursement have resulted in missed milestones. Tensions between state actors and donor agencies have left service delivery inefficiencies unaddressed, prompting the informal sector to resort to alternative means of obtaining access to services (Hossain, N., 2009). Policy commentators insist that reforms must address program ownership, planning, execution and resourcing from the perspective of implementing agencies and lower tiers of the state in order for successful outcomes to be realized (Rahman, A., 2002). In the absence of state management capacity, capability (accountability) and communication, donors have turned to engaging NGOs (Rahman, A., 2002). Civil society efforts have experienced some success, but problems that plague the larger cities as Dhaka are insurmountable unless communities mobilize and elevate the voices of the marginalized (Kabir and Kabeer, 2009).

The most obvious policy issue, rising levels of poverty and inequality, has only drawn state neglect (See Appendix). Rural to urban migration has become increasingly complex in terms of its causes and impact on policies (Afsar, 1999). The growth of slums has been steady in Dhaka. According to state documents and service delivery information, the population of informal settlements is over 3.4 million inhabitants (DCC, 2014; DWASA, 2014). These settlements are located on low value, marginalized, un-serviced land along Dhaka's urban fringe. While the government does not recognize the role of slums or slum dwellers, informal settlements drive much of Dhaka's economic activity as a site for cottage industry and as shelter for garment workers (largely female) and low wage laborers in Dhaka's industries (Hussain, 1995). These challenges are embedded in Dhaka's history, to which I now turn.

4.2 Historical Overview

Dhaka's political and economic importance dates back to ancient times. The implications of policy shifts at the upper tiers of the state on urban development are self-evident. In 1610, Dhaka's strategic importance prompted the ruling Mughal governors of Bengal to designate it as the state capital. It grew administratively, economically and militarily as a port of trade and watchtower for regional commerce and manufacturing. Estimates place the city's population as high as 900,000 during the peak of the Mughal period (Ahmed, S U., 2010). In 1715, the capital of Bengal moved to Murshidabad but Dhaka's commerce and trade remained constant in the absence of further development (Ahmed, S U., 2010). During this time, indigenous forms of government which linked hierarchical neighborhood level communities to ward level leaders were established in Dhaka's polity (Ahmed, S.U., 2010).

In 1757, the British military entered the region with political and economic consequences that would reshape the city's economy and population. By 1765, colonial rule had taken control of the entire subcontinent. Development in both Dhaka and Murshidabad declined as the British shifted the regional seat of power to Kolkata. Soon thereafter, the East India Company assumed informal control over Dhaka through a series of economic trade and development dictates. By 1772, the East India Company had reorganized most of the government structures, stripping the city of it of its administrative functionaries and capabilities. Dhaka lost several key administrative, revenue collections and judicial departments and staff. By 1765, Dhaka's population had dropped to 450,000. In 1801, the population was only 200,000 and the city limits contracted to three and a half miles by one and a quarter (Ahmed, S. U., 2010).

The city's deterioration furthered as migration to other cities contributed to declining revenues and deteriorating levels of human development. In 1813, Dhaka became the first town in Bengal, ironically, where taxation was imposed. A combination of insufficient housing, deteriorated buildings, poorly maintained sanitary systems and crumbling civic infrastructure served as a disincentive for new formal developments. Lower income groups, left with no options for shelter, began to occupy and expand poorly built informal housing settlements. These informal settlements were carved out from the jungle by low income habitants, while their wealthier counterparts built solid, well designed homes along the rivers (Ahmed, S U., 2010). By 1817, poor sanitation had become a normal feature of the city and cholera, among a number of diseases, became an annual visitor. There was no indigenous leadership to address these urban problems. In 1823, a committee of improvement was established which concerned

itself with creating an official set of plans for Dhaka. The city's deterioration had already led to a steady stream of emigrants, and by 1838, the population had declined to 68,610.

By the mid-19th century, substantial deterioration and social unrest⁶⁷ led to the ad hoc creation of administrative and management structures. The spread of disease and poor health among the lower income groups was beginning to threaten the wealthier communities. In 1840, an urban development committee was formed, to develop mandates and policies for cleanliness, construction and reclamation of land. Without sufficient funds or power, services declined and civil unrest resurfaced. The failure of the administrative approach led to a legislative approach to governing the city being adopted. The 1850s saw the idea of a municipal act introduced in policy discussions. The lack of financial resources for infrastructure was accompanied by the prevalence of disease and poor health, mirroring the development environment. In 1864, the government enacted the Dhaka Municipal Corporation (DMC) Act by formalizing a municipal decision making body and management structure. Administrative departments including planning, police, health and engineering and taxation were soon followed by governance by locally elected representatives and the ability to levy taxes and fees⁶⁸. By 1885, roads, markets and transport infrastructure serviced the majority of the city areas (Ahmed, S U., 2010). Although delegation of authority and electoral reforms were implemented in Dhaka, local networks and indigenous structures that tied community governance to state policy making did not survive the shock of colonial rule and post-colonial development. In 1932, the Bengal Municipal Act was reformed to allow for greater elected representation and taxation/user rates for Dhaka. As a result of implementation the number of elected local commissioners was increased. Despite being elected, the agenda of this political layer was at odds with the city's informal sector. This is partially due to the erosion of the

⁶⁷ It is important to note that differences in socio economic class closely mirrored color lines among Dhaka's population. The wealthier residents were traders and fair skinned leaders appointed by colonial rulers. The darker skinned residents were native Bengali's who were migrants and formed the bulk of the local labor class. The ethnic composition of class groups would persist well into the 20th century, long after colonial rule had formally ended.

⁶⁸ Although the municipality was given the ability to levee fees, the actual collection and management of them was not actualized until much later. In fact, most of the fees were siphoned towards activities that catered to the wealthy and the elite, while poorer communities lacked basic services

Mughal conceived local neighborhood 'Panchayats' system in the 1950s.⁶⁹ Modernization eclipsed the weak traditional framework with consequences for Dhaka's development.

4.2.1 Post-Colonial Institutional Setting

During the latter period of colonial rule, regional political and economic changes reversed the declining patterns of urban settlement. In the 1900s, when the state of Bengal split, Dhaka reassumed the seat of power for Eastern Bengal and Assam. Economic growth and population levels continued to increase following independence (and the exodus of Muslims and Hindus) and when the city became the regional capital in 1947. Construction increased from the 1950s to the 1960s with the addition of government offices and additional housing for civil servants. Other measures were adopted by the national government which gave municipalities more electoral power, defined values and legal status⁷⁰. Although policy recognition increased, population growth outpaced the city's capacity to meet housing and shelter demands. The mechanization of agriculture continued to drive rural labour to Dhaka in search of employment. The housing deficit led to patterns of polarized habitation and inequitable access to municipal services. The clash between overwhelming population growth and elite focused development has led to conflict between formal and informal modes of housing. The formal, representing the interests of higher income groups and the informal, characterized by a flexible, elastic and free flowing labour force taking refuge in slums. Despite the growth of the latter, their deplorable condition and lack of access to services has not been engaged by top down planning dictates.

Dhaka's informal settlements have continued to struggle with poor development policies formulated by the upper tiers of the state, resulting in inadequate service delivery. For example, the 1983 reform of the Pourasabha ordinance allowed the central government to declare a prospective area as part of a municipal corporation based on a number of criteria. However, there were no criteria that provided

⁶⁹ British indifference to the system translates into a lack of deference or engagement of the cultural features of the Panchayet system that would have given local bodies and communities a reason to engage the more formal structures of state government. While the British did not actively demolish these panchayats, their marginalization and relevance resulted in their disappearance from the policy making and municipal government theater.

⁷⁰ 1957 saw the abolishment of nomination and the reservation of seats for minorities in LG. 1960 saw municipalities aligned with basic democratic values of the national government. 1972 saw the drafting of the Pourasabha ordinance, leading to the Dhaka Municipal Corporation.

guidance for situations where 'de municipalisation' might arise, should an area wish to opt out of the municipal zone (section 154 of the 1983 ordinance). In other words, there is no formal means by which communities can engage the Dhaka City Corporation (DCC) or the elected leadership and communicate their desire to be excluded from Dhaka's municipal jurisdiction. This gap in political and administrative engagement represents the absence of understanding regarding Dhaka's lack of capacity and capability in achieving equitable development.

Although the DCC was given the authority to reframe electoral structures, it remained powerless in resolving the administrative and legislative shortcomings in the city's overall governance framework. In 1990, the DCC's mayors and ward commissioners were directly elected on the basis of franchise, with all wards divided into zones fixed by the central government. This legal framework has remained challenged as many of the bylaws dated back to colonialism require central government approval to update them. In the meantime, old rules and regulations are used for political convenience with little flexibility for alternatives. Finally, many by laws are dealing with organizations and state entities over which DCC has no control. In light of this confusing and contradictory policy context, standing orders from central government supersede any of the DCC's internally generated decisions.

The central government in Bangladesh holds a disproportionate amount of power over Dhaka, given the history of client-patron politics and the overshadowing of ideology by self-interest and promotion (BRAC, 2008). Although the DCC depends financially on the central government, there is no oversight by the latter on the operations of departments and officers⁷¹. This is complicated by the frequent transfers of higher level officials to other portfolios and the endless allegations with each deeming the other incompetent. Most of the DCC's key decisions on 'municipalisation', 'de municipalisation', mayoral standing, functions, budgets, inspections, procedural annulments and postings (appointments of

⁷¹ Ahmed and Khan provide a detailed summary of the evolution of Bangladesh's bureaucracy and the characteristics of 'over developed' cadres that have struggled with political elements. This study will not investigate the inner workings of the bureaucracy, except but to acknowledge its similarities to the Indian and Pakistani bureaucracies. The bureaucracy is characterized by centralization, military bureaucratic dominance, a passion for rank, caste differentiation of officials and a lack of subsystem autonomy. One key difference in Bangladesh is that the civil bureaucracy has been punished politically with independence and the focus of political development has increasingly been on central government dynamics with political authority as determined by party politics (Subramaniam, P., 1998).

officers) are managed through the central government. City feedback is not factored into GoB plans for Dhaka and even donor negotiations must be managed through the central government. Multi stakeholder processes add to the already tense relations between lower tier (DCC) and upper tier (GoB) actors. Given the politicized nature of inter-governmental relations it is not surprising that partisan politics have disrupted service delivery. The result is that proposed solutions to municipal problems are never institutionalized and discontinuous, one off initiatives persists.

Intergovernmental tensions have been accompanied by calls for decentralization, particularly from the military, whose exercises in local area management demonstrate the benefits of local government. However, reforms have been challenged on the grounds of poor performance, capacity and insufficient oversight in a culture of subservience (Huque, 2011). Critics point to such arguments as a basis for re concentrating power at upper tiers of the state. For instance, when the lowest levels of local government were given authority to generate revenue but were found to be incapable of collections, a higher tier was charged with revenue generation (Wahhab, M.A., 2002). Overall, the administrative system in Bangladesh has followed the roots of colonial rule where the centre had near absolute authority over the functions and dynamics that shaped the subservient local government (Wahhab, M.A., 2002). The aspirations, mobility and superiority of upper tier generalists vs. lower tier specialists alienate the lower tiers more than policy discontinuities (Zafarullah and Khan, 2009).

The impressions of post-colonial municipal development have left city governments suffocated by party politics, inefficiencies and bloated upper tiers of the GoB (BRAC, 2008; Munith, C.M., 2007). I must emphasize that the challenges facing local governance (falling revenues, central control, resource constraints, corruption, inefficiencies, misuse of public funds and downsizing) have at least been engaged by a vibrant civil society sector. This sector has concentrated their efforts at facilitating service delivery in Dhaka through acquiring, empowering and sustaining competent staff and funding from a range of domestic and largely international donors (Islam, N., 2000). Their contributions emerge in various aspects of Dhaka's institutional landscape. The challenges that have faced the DCC and adjacent institutions are outlined in the next section.

4.2.2 The condition of municipal institutions

Over one hundred political and administrative institutions under the elected mayor and state appointed CEO, are directly or indirectly involved in the provision of services to Dhaka (Metropolis, 2009). Policy

research points to the underperformance of upper tier planning bodies and their lack of support for lower tier mandates and tasks (Siddiqui et al, 2000; Islam, N., 2008). Planning is the responsibility of the Metropolitan Region of Dhaka (MRD) and the central government's capital development body, RAJUK. The institution has faced criticism for corrupt, opaque, obsolete and elitist planning policies that cater only to the wealthy (Islam, N., 2000, WB, 2007). Plans have been drafted only to face delays, further withholding resources from lower tier departments. Other services of these upper tier actors include the construction and maintenance of roads, bridges, culverts, drains and various public utility works. The Dhaka City Corporation (DCC) is responsible for the revitalization and improvement of slum areas, ensuring civic amenities for city dwellers, delivering education, health and sanitary facilities, disposing waste, ensuring a regulator civic order, encouraging the growth of ICI and residential areas, management of dangerous trades, supervising new building and construction, maintaining graveyards, burial grounds, supplying drinking water, maintaining bazaars, pounds for stray animals and parks for recreation. The reality is that only a few of these services are provided by lower tier departments to any significant degree. For example, the DCC's solid waste management department has the resources to collect only half of the solid waste generated by Dhaka's residents. The other half is collected at the household level by informal sector waste collectors and picked up by private or city waste management vehicles. Policy evidence did not reveal any recognition by state actors for the informal sector waste collectors.

The management and operations of the DCC have been fraught with corruption, nepotism and misalignment. Elections are governed by a commission that lacks resources to fairly and ethically oversee the fair administration of national, provincial and municipal elections (Islam, 2005). Procedures are formalities and are routinely violated with legal action rarely taken to the courts. As a result, local body elections have deteriorated into arenas for competing elite interests. The wards which divide the city are dominated by elected officials, bureaucrats and industrialists; many who are represented by local '*mastaans*'. The neighborhood '*mastaans*' (also referred to as slum lords) extract rents, bribes and protection money from powerless slum dwellers. This enables them to amass power and fund other businesses (often illegal) furthering their accounts of illegal money. It is therefore unsurprising that the wealthier have been found to be more likely to get elected (Siddiqui et al, 2000). Management within the DCC is also polarized between appointed officers and district officials who are either under resourced or unaccountable to their constituents. The administrative heads of the main departments (RAJUK, DWASA, DESA, DPHE and Health Services) form a number of standing committees which are

largely defunct as their recommendations are unheard by the elected/appointed officials. This leads to uninformed decision making, poor performance and inefficiency. Efforts towards decentralization led to the establishment of zonal offices and Ward Commissioners (WCs), which remain without power or alignment with other administrative offices. Elected officials at this lowest level tend to be uneducated, inexperienced in civic administration and possess little training in public (leave alone private) sector operations. Ninety percent of WC's are politically affiliated with national parties or '*mastaans*' (Siddiqui et al, 2004). Insecurity provides yet another barrier to the transparent and accountable administration of state functions and service delivery (Rahman, M. et al, 2003). Several surveys revealed that many of the WCs see the poor as part of the problem and slums are simply a nuisance where illegal occupations are an inconvenience for the residents.

The capacity and capability of DCC's staff also lags behind the demands of infrastructure expansion. Available resources intended for development are absorbed by salaries, allowances and repairs. More specifically, the bloated ranks of senior staff divert budgetary allocations away from frontline service delivery needs. Revenues streams are dependent on a few sources and have not been revisited or updated for several years. Assets owned by DCC have been captured by private interests whom upper tier actors fear aggravating⁷². Similarly, the DCC labour force is characterized by inefficiencies and ineffectiveness, where corruption and graft is rampant. Budgetary allocations are driven by crisis situations and resource allocations and outcomes are rarely audited. Seventy percent of the DCC's employees are temporary hires and have their contracts renewed through a politicized process of manoeuvring with local '*mastaans*'. The combination of politicized appointments and poor performance has resulted in weak organizational values and a culture of corruption. As a result, few opportunities are offered for training, advancement or promotion (Siddiqui et al, 2004). These challenges of capacity and capability were found across the literature on Dhaka's municipal departments.

⁷² The asset holdings of '*mastaans*' representing politicians, bureaucrats and industrial elites strangle Dhaka's real polity. Unfortunately, there is little political momentum to rebalance the power over services from the ground up. Networks of upper tier actors are stronger than those at the lower tiers.

Many of Dhaka's municipal departments struggle with a lack of upper tier support and resources. The Dhaka Metropolitan Police (DMP) department has struggled with its responsibility for maintaining law and order, security and traffic across the city. Critics point out that the number of policemen is inadequate and officers are ill equipped, hence the DMP's inability to control crime effectively. They also point to the lack of capacity of the Chief Metro Magistrates Court. Slum dwellers admit to the increase in insecurity as a major concern rather than obtaining a sufficient economic income (BRAC, 2007). Construction in Dhaka is managed by three upper tier directorates (HSD, RHD and RAJUK) all which have limited interaction with the lower tier DCC in the design of capital projects. Furthermore, these three groups are focused on providing housing to ten percent of Dhaka's wealthy (Seraj, TM and Alam, S. 1991; WB, 1999). Transportation assets and systems are managed by the BRTC, with most attention paid to facilitating automobile traffic rather than managing public transit, in the hands of private operators. Power distribution assets in gas and electricity have also failed to keep up with demand, resulting in black outs and revenue losses in the order of forty percent. A similar experience in managing infrastructure backlogs exists within the telecommunications department.

Since 1963, the Dhaka Water and Sewerage Authority (DWASA) have been mandated with the provision of water and sewage services to the city. The system is beset with problems, including: over forty percent unaccounted-for-water and uncontrolled demand. Over eighty two percent of the city's water supply is ground water based, the table of which is falling at a rate of two to three meters per year. There is a sub optimal system of small diameter pipes, fifty percent of which will have ceased to function as of 2013. Illegal connections and false billing have also impaired DWASA's financial health. Eighty five percent of poor households have no access to drainage or septic facilities and twenty percent of poor households are connected to the sewage system (WB, 1999). The DCC has recently been more cooperative in facilitating the extension of water and sanitation services to the informal sector (DSK, 2011). DWASA institutional reforms and infrastructure rehabilitation are supported by a range of donors and civil society actors, in an effort to ensure the sustainment of public water (ADB, 2011; DSK, 2013).

4.2.3 Calls for Political and Administrative Reforms

Dhaka's political and administrative weaknesses have drawn numerous calls for reforms. However, most of the discussions remain framed by upper tier actors. For example, the coordination committees that were started in the late 1990s were irregular and were dominated by civil servants who were not concerned with improved coordination or service delivery effectiveness (Islam et al, 2001; McCarney

and Stren, 2001). Most of Bangladesh's governance discussions have seen national concern eclipse those of the local (Siddiqui et al, 2000). Ordinary decisions are entrenched in ministerial dealings and portfolios, rather than follow due procedure (Muhith, A.M., 2007). Policy researchers have pointed to the structural concerns nested in the relationship between the mayor and the central government, exacerbated by management and institutional inadequacies, personnel and capacity deficiencies, lack of motivation, corruption and unethical labor and dishonest leadership (Islam et al, 2001). In response, central government functionaries have stripped their lower tier counterparts in the DCC of resources while burdening them with more responsibilities⁷³. Non-state actors at the lower tiers have provided support to targeted groups, leading to subsidization of other development activities (Banuri et al, 2004). However, independent solutions cannot address the constraints of intergovernmental relations and local capacity building (Siddiqui, K., 1998). Others recommend the creation of a metropolitan government which oversees the entire jurisdiction and has the autonomy to make necessary decisions. A similar model would see the creation of a two tiered government where the upper tier's role is simply distributive and monitoring, while the service delivery and operational powers lie in the lower tiers (Ahmed, S., 2010).

Alternative models based on increased community engagement are proposed by non-state actors, in light of persistent institutional problems, service delivery shortcomings and a weak DCC (BCAS, BRAC and ADB, 1998). Evidence based recommendations include the delegation of revenue generating authority, service delivery power to the neighborhood level, citizen oversight in planning, formulation and execution of DCC services (Munith, A.M., 2007; Brocklerby and Hobley, 2003). Donors concur with such recommendations, adding the need for capable and well-resourced DCC staff along with specific 'Terms of Reference' for non-state actors (ADB, 1998). Such measures would address the lack of capacity building and devolution to lower tiers of government (Munich, C.H., 2007; AminuRahman, 1992). It would also address the lack of vertical and horizontal communication between lower tier departments,

⁷³ During the Hanif administration, the AL party leader elected by the people approached both BNP and AL led governments with a decentralization model which would improve city governance and he received no response, illustrating the conflict between the mayor and the ministry appointed CEO.

low morale and incorporate the service delivery expectations of the poor (Zafarullah and Mohabbat Khan, 2007; Jahan, 2012; Narayan and Zaman, 2009). Given the deadlock between upper and lower tiers of the state, non-state actors (who work closely with the informal sector) have been identified by most policy researchers as the most effective agents of change. In order to appreciate the needs at the lower tiers, as represented by both state and non-state actors, let us now turn to first service delivery context of study.

4.3 The Water and Sanitation Context

Dhaka's water and sanitation context illustrates the challenges facing lower tier actors in pursuit of mandated engagement of vulnerable communities. Following independence in 1971, the government pushed DWASA for the development of the country's groundwater supply and improvement of its sanitation systems. A falling water table and deteriorating system led to deeper drilling for well water and arsenic contamination. By the turn of the century, an institutional turnaround program has led to a steady reduction in the reliance on groundwater through the development of surface water treatment infrastructure (DWASA, 2014). Unfortunately, many of the poor are beyond the reach of the utility. Over fifty percent of slum dwellers have no access to DWASA managed sources of water and resort to paying vendors very high prices for illegal access supply. Service delivery to the informal sector has been eroded as 1/3rd of Dhaka's residents reside in areas under serviced by the utility. Six percent of slum dwellers are served by tube wells with the rest accessing water from unsanitary sources.

The situation is even more precarious with regard to sanitation coverage. Studies by the CUS in 1990 and JICA in 1991 reveal that only twenty five percent of city population was serviced by DWASA at that time. Half of Dhaka's 3.4 million slum dwellers have no access to sanitary systems (CUS, 2005; DWASA, 2014). High rises in the dense urban core have latrines at slum, drain, storm sewer or water pond connections, which results in surcharges (and thirty percent increases in cases of gastro intestinal diseases) of the sewer system during flooding, especially in low lying slum settlements (WSSCC, 2011; Wateraid, 2009). By 2004, DWASA had covered thirty percent of the city in terms of sewage coverage (BCAS, 2004; WaterAid, 2010). The DCC has been trying to build more public toilets but the lack of space has presented planners with an ongoing problem. DWASA has indicated that their dominant concern is with ensuring water supply and accelerating cost recoveries on non-revenue water (WSSCC, 2011; DWASA, 2013). Most of DWASA's challenges are linked to unpaid bills, pilferage through organized crime and implementation of a turnaround program (DWASA, 2014). Unfortunately, ambiguities within the

land ownership market (as discussed earlier) and a number of external and 'higher tier forces' prevent the efficient enforcement of public water supply. The market also sells bottled water to which DWASA has responded with their own brand of bottled water which is available at a subsidized rate, much less than other market players.

In spite of these challenges, there are efforts by lower tier non-state actors (NGOs and CBOs) to extend service to the informal sector. NGOs have advocated for slum dweller water connections by engaging lower tier departments such as DWASA and the DCC, on behalf of slum dweller CBOs. NGOs have also educated CBOs on sanitation solutions. Such assistance has resulted in the establishment of municipal water points or tube wells. Aside from providing technical assistance, these NGOs have enabled slum communities to navigate the labyrinth of departmental processes and demand services. Fortunately for Dhaka's slum dwellers, the water utility has made it a priority to increase revenue recovery by extending service delivery to stakeholders who do not have formal connections. As state and non-state actors are cognizant of the challenges of unaccounted for water, NGOs have recently been engaged with DWASA as intermediaries to ensure that some level of service is extended to a 'ready to pay' informal sector (Islam, N., 2005). Despite these efforts, a number of challenges remain to ensuring water and sanitation services to the informal sector in Dhaka. Let us now turn to these challenges as categorized by the following comparator variables.

4.3.1 Political representation

Primary and secondary research revealed little, if any evidence of support by elected officials for extending water and sanitation services to Dhaka's slums. Policy commentators and CBO leaders have long accused politicians of infrastructure planning for service to wealthier constituents while neglecting lower income groups (DSK, 2013; CUS, 2008). This bias is mirrored in society, where upper and middle class citizen groups persistently lobby politicians to restrict service provision to adjacent slums as they fear service delivery loss to their enclaves. This behaviour persists despite the reliance of higher income communities on the informal sector for services (McLaren et al, 2008). Although upper tier policies

recognize water as a right, interviews with slum dwellers and representative CBOs point to a history of political neglect with respect to the extension of services to their communities. CBO leaders have complained ‘elected officials from the federal and municipal governments only come during election time. Otherwise, they are nowhere to be seen.’⁷⁴ A few government documents mention engaging the informal sector but there has been little progress in terms of implementation.

Primary research and interview data revealed a political economy of service delivery to the informal sector. NGO and CBO leaders pointed to a number of illegal connections that are exploited by criminal networks that pilfer the public supply and resell extracted water for 10 to 15 times the DWASA tariff. In fact, elected officials are enabling the network of ‘*mastaans*’ who have expropriated public hydrants by paying off DWASA staff (DSK, 2011). In many situations, these ‘*mastaans*’ are propped up by illegal land lords with ties to political and economic leaders. NGO representatives pointed out, in referring to several informal settlements, that ‘the ‘*mastaans*’ extract rents from slum dwellers, with funds lining the pockets of Dhaka’s elite. It is dangerous to engage slum dwellers on illegally appropriate private property, which is owned by ‘*mastaans*’, as compared to public lands where ownership is contentious, but at least within the government realm.’ When asked about their main challenges, NGO actors responded ‘Our two main challenges are ‘*mastaans*’ and the threat of eviction. The pockets of elite politicians and bureaucrats are lined while lower level DWASA and police staff are threatened or paid to look the other way.’⁷⁵ The manipulation of water markets by political leaders and their networks of ‘*mastaans*’ also allow them to manipulate slum power structures for profits (Akash and Singha, 2011). Slum dwellers are forced to pay for illegal supplies of water and are denied piped access which would contribute to the case for tenure and avoid resettlement and the marginalization of slum to pavement dweller (Nawaz, T., 2002). Policy evidence also shows that programs intended for the hard-core poor in sanitation, are captured by upper income groups represented by upper tier state actors (BCAS, 2013; Islam, N., 2005). According to a study of subsidies, estimates are that as much as thirty three to fifty percent of the twenty percent of the annual development program block grants are captured by the

⁷⁴ Interview with Community Based Organization Leader, Korail Basti, December 10th, 2013

⁷⁵ Interview with Non-Government Organization Program Officer, Dhaka, December 27th, 2013

non-poor. This is due to lack of awareness of the poor of these programs, caste system, kinship, political liaisons and favouritism, local power politics and communication influences of free services, high barriers to obtaining hardware and materials, lack of effective GOB monitoring, inability to interact with local government, etc. (Ziaul Kabir, A.B.M., 2008). Hence, although there is a substantial level of policy formalism, little implementation exists to realize positive outcomes for the informal sector.

Interviews with non-state actors revealed a common perception that elected officials are only interested in sustaining the status quo and ‘votes for services’. A prominent researcher in Dhaka’s NGO community commented ‘Mayors and other senior DCC officials have travelled to other cities to see how tax collection and other municipal administrations are run. However, when they return, nothing changes. When challenged, they complain of not having substantial power to incur change’⁷⁶. A donor focused on pavement dweller shelters also complained ‘Working with the DCC is difficult and they see NGOs as a threat. Although we have established good relations with frontline DCC officers, it is still hard to influence senior officials in the federal government.’⁷⁷ Slum dwellers and their communities have grown cynical and tired of votes for services (particularly with respect to housing and shelter) are now realizing their rights to services from DWASA as an administrative entity. In fact slum dwellers are politically mobilizing Vis a Vis self-help NGOs. The political influence of landlords, supported by local elites and politicians, is countered by NGOs and slum dweller CBOs who strive to unite otherwise fragmented informal sector groups. Donors also conceded that the presence of NGOs has mitigated the lack of political representation by elected officials, but mobilizing and sustaining CBO resilience (Wateraid, 2010). In order to move non-state actors beyond simply advocacy, overcoming the hurdles to engaging the lower tier city actors is needed. I turn to this variable next.

4.3.2 Administrative accountability/transparency

Primary and secondary policy evidence regarding the accountability and transparency of water and sanitation service delivery across Dhaka has been mixed. Although Dhaka’s sewer infrastructure has

⁷⁶ Interview with Non-Government Organization Researcher, Dhaka, December 14th, 2013

⁷⁷ Interview with Non-Government Organization Program Officer, Dhaka, December 14th, 2013

been in place since 1923, it has not been expanded to serve the entire north end of the city. Initially, management of the water and sanitation infrastructure fell under the authority of the DCC. As the DCC manages a number of the city's departments, water and sanitation infrastructure investments were underestimated and delayed. As a result, only eighteen percent of the sewage generated by the entire population reached the city's only treatment plant. Evidence also points to DCC neglect regarding the maintenance of public latrines for slum dwellers (Rahman, M. et al, 2003). Unsurprisingly the practice of open defecation continues to this day, spreading disease. The drainage system has also remained unattended to, resulting in the prevalence of waterborne disease during periods of flooding (Siddiqui et al, 2000). NGOs active in other sectors, such as solid waste collection, have also complained of the lack of cooperation by the DCC. For instance, a social entrepreneur who recently established a waste collection and recycling facility commented 'the DCC calls this effort a partnership, when really it is cooperation as the DCC is not sharing in the risk or taking any role in profit or loss with us.'⁷⁸

Since being mandated with the management of the city's water, wastewater and storm water responsibilities in 1996, DWASA (an autonomous body) has exhibited increased transparency through reporting and accountability for services. DWASA responsibilities include the operation of tube wells, sustaining water lines and service connections to Dhaka and the surrounding suburbs of Narayanganj and Gazipur (DWASA, 2000; CFSD, 2001). Financial officers for DWASA respond 'water shortages to informal settlements have persisted as DWASA has only been able to supply eighty percent of demand.'⁷⁹ Projections are that a net deficit of 2,750 MLD will be experienced by 2020 (Faisal and Ahmed, 2000). This is due in large part to illegal use of public hydrants and the suction which draws corroded material into supply lines, thereby contaminating them (CFSD, 2001). Sewerage coverage has increased to thirty eight percent of the city (DWASA, 2014). Nevertheless, over forty percent of the population are on individual septic tanks (Rahman, M. et al, 2003). The Dhaka storm water management plan is to recharge aquifers. Buildings that are now approved by RAJUK, must have storm water management, rainwater harvesting and groundwater recharge features installed (DWASA, 2014). Over

⁷⁸ Interview with Non-Government Organization Executive, Dhaka, December 15th, 2013

⁷⁹ Interview with Dhaka Water and Sanitation Authority Municipal Officer, Dhaka, December 16th, 2013

thirty three percent of DWASA revenue goes to paying electricity bills, and total revenue during the most recent years has 7 billion Taka. Ideally, DWASA authorities want the tariff to be raised to 13 to 14 Taka per 1,000 litres, up from the current 6 Taka per 1,000 litres (DWASA, 2014).

In order to make the improvements necessary to strategic management, the utility has embarked on a 'Dhaka WASA Turnaround Program' to increase revenue recovery and extend services to the informal sector'⁸⁰. Measures have been taken by DWASA to reduce operational costs, increase production and supply and extend more coverage to informal sector communities. DWASA now manufactures its own line of bottled water, although it is not as widely promoted (DWASA, 2013). Annual reports are readily available from DWASA through their website and through donor publications (DWASA, 2010; DWASA, 2011). Institutional reform projects are being implemented and KPIs are being used to show return on capacity building of the utility (WASA, 2014). The current Managing Director reports 'as a result of the turnaround program, service delivery across the city has improved. Water production has increased and non-revenue water has dropped from forty to twenty five percent. This has been possible through the laying of trenchless pipe as well as offering discount pricing to replace illegal lines with DWASA authorized lines.'⁸¹ In addition to the strategic issues, operational improvements include complaint policies, improved operating ratios (0.9 to 0.66), real time billing (with tolerances to optimize collections) and slum engagement. One of DWASA's strategic objectives is to have all three million slum dwellers engaged by 2015. The Director of Revenue quipped during an interview 'we at DWASA know that we cannot engage even a fraction of the informal settlements. We need the technical and social expertise of NGOs to accomplish this.'⁸² Engagement through non-state actors including UNICEF and a number of NGOs has improved coverage for DWASA (DWASA, 2014). DWASA has received several awards for being one of the best managed public sector utilities in Asia (DWASA, 2013). Future plans

⁸⁰ Key elements of this program include sustainability, large investment attraction, shift reliance on underground water to surface water, establish a good director team, develop regular bench marking and empower leadership so that we can move from reactive to proactive management. It started locally from within, but when management showed serious concern for institutional strengthening, it attracted donor funding from the Dutch and then the ADB. Ironically, cost effective management, increased service delivery reach and institutional reform and change has facilitated the access of water to the poor.

⁸¹ Interview with Dhaka Water and Sanitation Authority Managing Director, Lahore, December 16th, 2013

⁸² Interview with Dhaka Water and Sanitation Authority Revenue Director, Dhaka, December 16th, 2013

include constructing additional treatment plants, establishing automatic billing, introducing electronic account management and work management systems.

Despite receiving numerous accolades, DWASA's institutional capacity is in need of external assistance. DWASA lacks the internal communication necessary to optimizing service delivery (whether it is internal or engaging with civil society). DWASA is not able to engage land developers nor do they formalize the tenure of property, which has left gaps in land control to the detriment of the utility. The lack of information also reflects poor intergovernmental cooperation in the absence of regular and predictable information flows (Rahman and Mallick, 2003). Of the five hundred and sixteen permissions given to DSK for water point set up, one hundred and twenty three water points have been evicted and three hundred and ninety three are in operation (Akash and Singha, 2011). Senior management realizes that when DWASA is unable to establish piped water for slum dwellers, public water is obtained through middle men at a higher price (Siddiqui et al, 2000). While technical assistance follows from some donor activities, DWASA is devoid of staff development, human resources or institutional development plans. This leaves the frontline staff without support and prone to threats, graft and petty corruption (Rahman, M., et al, 2003). DWASA officials also indicate that a lack of engagement with other utility partners who do unplanned development is a problem. Departments such as DESA, Tita Gas and DCC break their own regulations causing problems on sanitation collection and treatment. At present, the North Dhaka System Sewage Master Plan – is worth TK 22 billion and will be split into two phases. ADB funding is driving this initiative. (Rahman, M. et al, 2003)

Overall, there has been a noticeable improvement in the transparency of information and accountability taken by DWASA. The management of DWASA are, according to DSK, in favour of pro poor initiatives that engage the informal sector slums. Several NGO advocacy officers commented 'We have better success engaging DWASA's frontline officers first when we want to launch a program. Once they are on board, then we find it easier to advocate with higher level municipal officials.'⁸³ Unfortunately, the promotion and advocacy slum land tenure is beyond their jurisdiction, hence their indifference to the

⁸³ Interview with Non-Government Organization Program Officer, Dhaka, December 14th, 2013

political plight of slum dwellers. DWASA is deprived of the revenue and illegal operators make large profits. This power is also used to control and manipulate power in the social structure slums. Parties involved in this illegal market are a formidable source of resistance to the project (Matin, 1999). More management by communities can result, but alliances and monitoring will have to be ongoing by communities (Khandekar, 2008). Meters on WPs exist and bills are sent out every two months. While there is some corruption and concerns with DWASA meter readers, community monitoring and meter reading has been encouraged (Akash and Singha, 2011). Clearly, bill collections have improved as in 2008, forty percent of NRW while in 2013, twenty seven percent of NRW. According to DWASA officers, 'Revenue collection has also improved from 2008, sixty four percent to 2013, ninety nine percent. Bills sent have remained steady, ninety three percent in 2008 to ninety nine percent in 2013.'⁸⁴

4.3.3 Intergovernmental support and policy failures

Primary and secondary research reveals a number of intergovernmental constraints to lower tier service delivery to the informal sector. These constraints appear across institutions and policies. Among the institutional constraints is the lack of inter departmental recognition for mandates. For example, DWASA's board is not engaged by the upper tier RAJUK or municipal electrical authority (DESA) despite contract management and billing concerns with both departments. An elite group of wealthy constituents are represented on DWASA's board and routinely neglect the concerns of lower income ward commissioners. According to DWASA financial officers, 'DWASA is barely breaking even.'⁸⁵ Senior WASA officials have complained that 'our internal reform efforts are succeeding, political interference is still a problem in areas such as contract award and quality of service delivery.'⁸⁶ The labour relations environment is also challenging with unions often aligned with political parties, and threatening to strike to ensure the preservation of benefits, remuneration and avoidance of reforms. A weak institutional context has seen various DWASA assets fall into disrepair and serve as sites for criminal activities. A number of landlords are linked with upper tier state actors and stall land reforms which would benefit

⁸⁴ Interview with DWASA Revenue Director, Dhaka, December 15th, 2013

⁸⁵ Interview with DWASA Financial Officer, Dhaka, December 16th, 2013

⁸⁶ Interview with DWASA Program Officer, Dhaka, December 16th, 2013

slum dwellers. The policy constraints can be summarized by a lack of upper tier resources for lower tier implementation. For example, a number of policies had been initiated since 1991 to address water use for various urban uses (Ministry of Local Government, 2012; WaterAid, 2010) (See Appendix). A culture of ‘policy formalism’ is observed, where existing policies have not been followed by transparent implementation (Akash and Singh, 1999). Policies such as the Bangladesh Flood Action Plan (FAP) have short changed the meaning of participation, by engaging bureaucrats and higher tier policy makers while excluding citizens (Hanchett, S., 1997; Woop, 1999). There have not been any linkages with other poverty reduction strategies, in spite of DWASAs value in providing water. In light of disabling intergovernmental factors, DWASA’s operations fare poorly when compared with other utilities.

Interview results and secondary evidence outline the isolated position of the lower tier DWASA and recent reform efforts. A reputable NGO representative pointed out sarcastically ‘We have established good relations with DWASA staff, but DCC staff is somewhat aloof as they are not set up to deal with individuals.’⁸⁷ DWASA management recognizes the need to develop capacity and capability in order to engage upper tier bureaucrats (DWASA, 2014). After much lobbying, DWASA has been able to ‘independently’ engage NGOs and donors in outreach and capacity building programs (DWASA, 2012). According to DWASA, ‘as we are unable to engage informal settlements, we rely on MOUs with NGOs and CBOs to set up water points and address the illegal connections that are pilfering water from our bottom line.’⁸⁸ Through NGO facilitation, management meetings are also held in low income areas (DWASA, 2012). In light of climate change and severe wet weather events, there is an urgent for coordination between upper and lower tier actors ⁸⁹ (Wateraid, 2007). Intergovernmental support for DWASA is minimal, as per the research and commentary from the staff and interview subjects. Overall, the real engagements that will assist DWASA are through other lower tier non-state actors. In

⁸⁷ Interview with Non-Government Organization Research Officer, Dhaka, December 18th, 2013

⁸⁸ Interview with DWASA Managing Director, Dhaka, December 18th, 2013

⁸⁹ Displacement and migration, flooding will lead to 100,000 displaced annually. Only 6 million can be supported by DCC, where the population now stands at 16 million. In Dhaka there are over 5,000 bastis and forty percent are in precarious conditions. There has been an accelerated rate of disasters from 1960s to 1970s to 1980s and climate refugees are increasingly being pushed into policy discussions. Internal migration on the rise and local adaptation where cities are recipients needs to be developed. Commentators point to the poor as likely to suffer from such disasters the most. Alternatives include community engagement from the bottom up. Additional measures are rehabilitation of settlements, mixed agriculture replacing monoculture, resource co-management, multi stakeholder governance, and transparency and accountability frameworks.

partnership with lower tier CBOs, there are higher observed returns on program sustainment, in so far as the expert interviews have revealed.

4.3.4 Citizen engagement or pro-poor engagement

Policy and program research reveals differences between citizen and targeted programs offered by upper and lower tiers of the state. For instance, although a number of national level policies that claim to improve access to basic services (such as water and sanitation, housing and shelter and solid waste collection) to the informal sector and urban poor, there is little evidence of on the ground implementation (BCAS, 2012). A number of policies specific to slum upgrading and engaging the poor are either time bound projects or depend on external funds for implementation. For example, a foreign donor may take interest in providing a service to a group of ‘hard core poor’ settlements. However, the funding for such projects lasts a few years with much consumed by overhead, graft and mismanagement. In any event, once the project ends, the context returns to pre support levels with little hope for improvement.

At the lower tiers, interviews and reports reveal a shift in approach by DWASA, where officials have launched programs to extend services to all users including the informal sector (DSK, 2012; DWASA, 2012). DWASA’s management team has expressed concern in the increasing polarization between those who can pay for the commodity and those who cannot afford the infrastructure investment for the initial service connection. Furthermore, the linkage between unaccounted for water and poor service delivery to informal settlements is being recognized by state and non-state actors (DSK, 2014; DWASA, 2014; Wateraid, 2010). While ninety eight percent to one hundred percent of higher income neighbourhoods receive services, fifty to seventy five percent of lower income communities have access to services (Jahan and Kalam, 1996). In slums and squatter settlements, there is only two percent coverage.

Slum dwellers recognize the role of DCC and DWASA and have experienced mixed outcomes when lobbying for the establishment of service connections. In the past, their efforts have failed as there is no policy document that engages slum dwellers directly in Dhaka. As a result, DWASA expressed no interest in extending services to a community without the consent and authorization of the landlord. However, through persistent NGO facilitation, some informal settlements have made progress in engaging frontline officers, if not senior managers. This is similar to the situation in housing and shelter as well

where NGO actors comment ‘We have good relations with the local slum development officer, but have a hard time engaging higher level state actors.’⁹⁰ Other NGO actors in solid waste have claimed that while the city benefits from the service provided by the informal sector, there is little if any recognition or support is given to informal settlements and slum dwellers (WC, 2013).

Most recently, a citizen charter was developed to govern expectations between DWASA and its customers. Although a complaint centre, capital project plan and a quasi-legal provision of piped water supply to the urban slum dweller was developed, a lawful act in black and white was found to be missing (Wateraid, 2010). Workshops by Wateraid revealed that CBOs that engage slum dwellers on the ground are better served by frontline support and coordination with state staff (Wateraid, 2014). In response, DWASA established a ‘Low Income Wing’ specifically mandated to engage NGOs as well as well as CBOs of slum dwellers and formalize agreements for establishing water service lines. This administrative approach to engaging the poor has been enabled by the autonomy of utility decision making coupled with the social and economic pressure to expand the customer base. Regardless, it illustrates the value of citizen engagement at the lower tiers to extend services to the informal sector.

4.3.5 Donor/Civil society activity

Primary and secondary evidence reveals significant donor and civil society activity in the water and sanitation sector. While a number of donors and civil society actors advocate for policy reforms and project delivery at the upper tiers of the state, their impact is limited. A prominent NGO researcher lamented ‘We have proposed site specific solutions to the deep pockets of large multilaterals. Their response has been to scale up prematurely and give lucrative, capital intensive contracts out to private sector consultants. When projects fail, then we are called in to clean up the mess and salvage deliverables.’⁹¹ There are those that manage specific projects and influence service delivery outcomes at the neighbourhood levels of large cities. These non-state actors possess both the policy knowledge and technical expertise within the water and sanitation service delivery context. They are also socially

⁹⁰ Interview with Non-Government Organization Program Officer, Dhaka, December 18th, 2013.

⁹¹ Interview with Non-Government Organization Research Fellow, Dhaka, December 16th, 2013

engaged with low income communities and informal settlements (slums) that are in most need of basic services. This in depth knowledge of policies, programs and stakeholders makes these non-state actors invaluable to service delivery in large complex mega cities. Let us now turn to a few examples that illustrate the activity of donors and civil society actors in Dhaka.

One of the most prominent indigenous NGOs in Dhaka's water and sanitation sector is Dhushta Shasthya Kendra (DSK). Initiated by a group of health professionals in 1994, they aimed to educate slum dwellers on the benefits of clean drinking water and hygienic practices. Numerous sanitation projects evolved from hygiene training and replaced 'hanging' or 'suspended latrines' with toilet blocks and where necessary accessibility based design (Matin, 1999). Over time, they realized that their success was limited by the absence of piped water into slum dweller communities. The NGO approached DWASA with a community based water point model of service delivery. This model involves DSK guaranteeing that a CBO would gather and repay the utility for supporting a metered connection (DSK inventory on slums, 2012; Matin, N., 1999; Wateraid, 2012). A technical donor, Wateraid, funds DSK's operating costs. After a few successful pilots, DWASA permitted DSK to mobilize slum dweller CBOs in the Adabor district of Dhaka. During a 3 month period, 130 water points were installed (DSK, 2009) along with over 400 other water and sanitation assets (Hachett et al, 2003). DSK has also elevated its role as an advocate in policy discussions, by serving as secretary of Bangladesh's 'Water Supply Sanitation Collaborative Council', a forum for state and non-state actors to improve service delivery to the poor (WSSCC-B, 2011). DSK's support of the informal sector has grown to other cities resulting in a total of 1 million beneficiaries (DSK Annual Report, 2010). Other donors involved in supporting such on the ground services in Dhaka include Plan Bangladesh and Concern International (Housing and Shelter). The successful extension of service delivery to the informal sector is linked to the clearly defined roles and responsibilities of state and non-state actors (WB, 2007).

Interview information with state and non-state actors reveals a complementary relationship between technical non-state providers and administrative state actors. DSK researchers emphasize the complementary relationship 'we need institutions, DCC and DWASA to work in balance with donors and

civil society actors. Only then will service delivery extension be possible.’⁹² In the case of the MOU with DSK, the NGO assesses the situation, facilitates community engagement, identifies problems, prioritizes issues, mobilizes the community, establishes the CBO, selects options and design, develops location and formulates guidelines on water usage and cost sharing (DSK, 2012). DSK also mediates with the utilities and lends capital costs to communities for both water and sanitation projects (Singha, 2012). The mobilization of CBOs has resulted in the piloting of rain water harvesting, school hygiene programs, public and eco toilets in urban settings (DSK, 2012). Through such program support, DSK staff has been able to point out gaps in DCC and DWASA processes. Namely, the resolution of billing and water shortages could be resolved through routine engagement with CBOs and bill preparation. DSK and CBO staff has found that DCC officials and other state actors only care to visit slums during election time (WSP, 2009). This observation on political neglect is supported by other NGOs involved in housing and shelter, which complain ‘we are doing the work of DCC and only require their official support to replicate the model. Unfortunately, they fail to respond to our calls for increased participation.’⁹³

In its engagement with lower tier NGOs and CBOs, DWASA maintains responsibility for the larger water and sanitation system infrastructure. DWASA provides technical input, permits for construction and approvals for the connection of the water points (ADB, 2011). The utility also takes part in donor loans for infrastructure renewal that are largely negotiated by upper tiers of the state. DWASA management have pointed to their autonomy as enabling them to ensure that any financial or technical support from the upper tiers of the state, are fully engaged in and absorbed through relevant utility departments (DWASA, 2014). Having demonstrated a commitment to reform, institutional engagement with the ADB has led to the funding of a model of revenue recovery (DWASA, 2007). Through its engagement with DSK and other NGOs, DWASA has grown more familiar with engaging slum dwellers as customers (DSK, 2010). This trend has also enabled DWASA to take a stand in servicing the informal sector, when other stakeholders (high income communities, developers, land owners) exhibit resistance. Studies by DSK and

⁹² Interview with Non-Government Organization Program Officer, Dhaka, December 16th, 2013

⁹³ Interview with Non-Government Organization Program Officer, Dhaka, December 17th, 2013

partners have shown that increased employment opportunities and productivity resulted from such empowerment efforts which contribute to local economic activity (DSK-SHIREE, 2011).

The results of engagement between DWASA and DSK have been undoubtedly fruitful (BUET, 2008). DSK leadership was quoted 'Our internal studies have found that one hundred percent of DWASA's bills were paid by slum dwellers as opposed to eighty percent from other customers. On the other hand, the recovery of the financial costs by DSK for establishing water points was only forty one percent.'⁹⁴ In other words, slum dwellers are able to pay their water bills, but are often unable to pool together sufficient resources to repay the NGO for establishing the community water point. According to DSK, this illustrates the financial burden on slum communities and the constant pressure of evictions (DSK, 2012). In operational terms, the price of water has decreased for slum dwellers with positive outcomes for community health. The results of positive social and financial outcomes for communities and DWASA infrastructure across Mirpur, has drawn positive attention from state actors across Dhaka. As a result, DSK has been approved by the DCC to replicate the water point model to slums in other districts outside of Mirpur (DSK, 2012). Wateraid continues to actively support DSK and other NGOs in Dhaka, which are leading public health reform and DCC engagement of the urban poor (Hanchett et al, 2003).

Donor and civil society activity has been intense and more institutionalized in the water and sanitation sector in recent years. The focused cooperation of lower tier state and non-state actors is common across to other service delivery contexts. In housing and shelter, the Amrao Manush consortium of NGOs engages the slum wing of the DCC to provide shelter for pavement dwellers. Nevertheless, a lack of coordination persists across many sectors for while government agencies work with NGOs and CBOs in one way, their engagement with donors, UN, INGOs and apex NGOs is also different. MOUs exist with the former but the latter operate through more sophisticated terms of reference which offsets any predictable modes of engagement. A mechanism is required to ensure consistency and coordinated interventions, including subsidized tariffs for slum dwellers, additional community development programs, capacity building, primary practices, performance management and monitoring (Wateraid,

⁹⁴ Interview with Non-Government Organization Researcher, Dhaka, December 18th, 2013

2010). According to donors ‘There is potential for more engagement with other academic and policy actors to formulate innovative solutions. There is also a need to simply have state actors (DCC and DWASA) work to engage the poor more.’⁹⁵ The launch of ASEH (advanced sanitation and environmental health) combines public health education with sanitation measures to improve health. A national program would tie it together with the interests of all state departments in water, sanitation and public health; in a transparent manner which then results in measurable outputs (Wateraid, 2012).

4.4 Case Studies

I now turn to two case studies which illustrate the dynamics between upper and lower tier state actors as part of efforts to extend service delivery to informal settlements. I have structured the content of the case studies to highlight the specific comparator variables that have influenced service delivery to informal settlements.

4.4.1 The Case of *Kalyanpura Basti*: A Successful Outcome

Since 1992, DWASA has been extending water supply services to Dhaka’s slums through the facilitation of local NGOs such as DSK. In 2007, DWASA’s first transfer of water point ownership took place when a DSK guaranteed account was transferred to the ownership of the CBO for *Kalyanpura Basti*. The positive outcomes that resulted from the *Kalyanpura Basti* experience prompted DWASA to change its bylaws and create a special provision for service connections from city mains to slum communities under the oversight of a facilitating NGOs name.

4.4.1.1 Background

Kalyanpura Basti was established in 1988 on 6 acres of government land in Dhaka’s northern district of Mirpur. In 2003, 2,476 families lived in the slum. As of 2013, 8,455 slum dwellers have made this ‘*basti*’ (informal settlement) their home. DSK has ranked the extension of service delivery to this *basti* as one of the most positive outcomes in its history. This is in part due to the fact that over the last 10 years, the slum has been evicted on three separate occasions (2003, 2007 and 2010). The *basti*’s residents are an

⁹⁵ Interview with Donor Program Officer, Dhaka, December 18th, 2013

example of how environmental refugees are absorbed by informal settlements. Most of the families have migrated to the *basti* from coastal districts that have suffered from river erosion or evicted slum areas. Many of them were artesian fisher folk who lost their livelihoods as persistent flooding inundated their fish farms. All of the slum's families are categorized as either poor or extremely poor. The major occupations of slum dwellers are day laborer, rickshaw puller, drivers, street vendor, garments workers, fruit and vegetable vendors, small business owners and a range of odd service jobs. The average income of slum households ranges between BDT 4,000 to 10,000 per month (USD \$50 to \$125).

In the early years, all of the *basti's* households lacked access to basic services. Most of the residents were illiterate and lacked a basic knowledge of health and hygiene issues. The scarcity of water resources and sanitation facilities led to the proliferation of disease. During this time one hundred percent of the *basti's* residents used the unhygienic hanging toilet, and one hundred percent of the population had to collect drinking water from a long distance (1,500 to 1,800 feet away) or at a high price (20 times higher than the utility tariff) from an illegal water vendor. One hundred percent of the population also used contaminated and stagnant ditch water for washing, bathing and other household purposes⁹⁶. Despite community efforts to engage local officials, service delivery was not extended. The slum continued to suffer from the absence of drainage, roads, schools and other state services.

4.4.1.2 Intervention

Shortly after the establishment of the slum in 1988, a foreign funded group (Phulki) made a number of interventions with lower tier state actors and the community that resulted in construction of a water point, several latrines, tube wells and hygiene awareness. In 1990, DSK took over the effort as Phulki ran out of resources. DSK then mobilized the *basti's* community through social mapping, wellbeing ranking, problem identification and action plans for slum improvement. As a result of engagement by non-state actors and community based design, 72 water points (for 1,630 households) were connected through a 930 foot distribution line to a DWASA water main. In addition to establishing increased service through

⁹⁶ Need to cost a model out that makes the public utility service feasible for engagement, as compared to merely relying on illegal means.

the lower tier state utility, DSK continued to educate slum dwellers on the benefits of hygiene. As a result, sanitation coverage was increased to ninety percent of the *basti*. This was facilitated by the construction of 51 clusters of sanitary latrines and a connection to the public sewage line. A CBO was formed to manage the water points and sewage disposal.

A pattern of evictions soon began which tested the *basti's* resilience. In December, 2003, residents of the slum were evicted by developer plans that engaged upper tier state actors. During this eviction, a total of 2,476 families were uprooted. Despite protests from the community and the existence of lower tier state infrastructure, demolition continued. All community developed infrastructure was subsequently demolished, including the distribution line, set up by the lower tier DWASA. However, formal development never began. In early 2004, a few months after the eviction, slum reconstruction activities started and families began moving back. The major interventions of water supply, sanitation facilities, hygiene promotion and capacity building of the CBO continued. However, due to the distance of the DWASA main, DSK could not facilitate the reconnection of water supply to the slum. During that time community efforts around construction of latrines, improvement of drainage facilities, solid waste management, and hygiene promotion continued.

In 2006, a focused action research project was launched by DSK to ensure the effective participation of the socially and economically disadvantaged urban poor in local institutions and decision making processes. The 'ASEH Project' mobilized the community to establish 10 cluster latrines, 12 water points, a mobile water van and over 1,400 feet of storm water drains. Training in health and hygiene has also continued with a focus on hand washing, safe water and hygienic practices. Capacity building through ASEH not only solidified community cohesion but it also extended the *basti's* networks beyond DSK to include three other slum advocacy groups and legal advisers. The extension of the *basti's* community network would add to its resilience in the coming year.

In 2007, the *basti's* slum dwellers were evicted once again. Again, despite the presence of 'development' plans sanctioned by upper tier state actors, development did not take place and the community returned. When DSK surveyed the community, they realized that the majority of slum dwellers were already familiar with the necessity of hand washing, safe drinking water, cleanliness and hygienic latrines. There was no need for the introduction of new practices, despite the demolition of all constructed infrastructure. In the absence of developer pressure, the community resumed negotiations

with DWASA, the state water utility. In 2008 after substantial negotiations with DWASA, DSK arrange for a water supply network to be extended closer to the slum. As of June 2010, DSK had facilitated DWASA water supply coverage to one hundred percent of the basti. In the past, each family had to pay BDT 200 - 300 per month for drinking water. Now the cost for water has been reduced to BDT 40-60 with more than triple the quantity of water. Before the establishment of the DWASA connection, slum dwellers had to spend BDT 2 to 5 for each 20 liters of water. This is in sharp contrast to the DWASA price of 1,000 liters of water for BDT 7. The *basti* has complete coverage for sewage and sanitation facilities. Special latrines have also been installed for the disabled and physically challenged. Such innovation has led to local CBO representatives serving on the national council of slum dwellers. DSK has noticed that where evictions take place, the migrant workers take best practices with them to the new communities where they settle.

CBO engagement through WASH has also enabled them to reach out to other service providers. For instance, a number of INGO operated day care centres and health clinics now serve the slum dwellers. The CBO has also been able to form a registered organization, the Urban Slum Development Organization (*Nagar Bastibasi Unnayan Sangstha*). As an initiative of the urban working organization (DSK) and slum peoples' effort, the CBO has engaged Dhaka's ward, zone and city levels of government to access services from the appropriate authority. A bank account also opened in the name of the slum organization, where they are reserving their savings for future support such as purchasing their own land on an installment basis. More CBO awareness of services led to the establishment of a water connection from DWASA.

Case study evidence illustrates how lower tier state actors such as DWASA can be engaged to provide services, in spite of upper tier policy failures and developer pressure. Furthermore, the study illustrates how a well-developed empowered CBO can facilitate processes of development planning, meetings and project implementation from the 'bottom up'. In fact, the CBO is so well established that the *basti's* community centre also serves as the central office of the Dhaka City Citizen Action Committee (DCCAC). The CBO has built its capacity in advocacy and diligently lobbies with service providers to obtain access to services. The key features of this experience are the resilience of the slum dwellers and community despite repeated evictions. Their ability to reorganize and demand their rights following consecutive evictions is the key driver for service delivery access.

4.4.1.3 Next Steps

Now that a resilient CBO has been empowered to manage the project, community participation has increased. Needs based DSK training sessions have been provided to CBO leadership to run the organization, maintain facilities and sustain relations with DWASA. Negotiations have also begun with other service providers. A community managed solid waste disposal system is now in operation. Human development indicators among women and children have improved as water and sanitation facilities are closer and affordable. The threat of eviction remains for *Kalyanpura Basti*, but DSK as well as the CBO are confident that regardless of the outcome of land development, best practices of development and mobilization to engage DWASA and other lower tier authorities will continue as needed. DSK has noticed that when resettlement takes place, communities take best practices and learning of engaging government with them to the next slum that they occupy.

4.4.2 The Case of *Korail Basti*: An Unsuccessful Outcome

Since the mid-1980s, DSK has been empowering slum dwellers to participate in development initiatives through problem identification, planning, implementation and monitoring. DSK has been managing and monitoring water, sanitation and hygiene interventions in *Korail* since the launch of the WASH (Water, Sanitation and Hygiene) program in the early 1990s. DSK has been implementing water and sanitation projects in Dhaka's slums since 1992. The ongoing capacity building of *Korail Basti's* CBO has led to the development of community master plans to coordinate the efforts of state and non-state actors in developing the slum. Unfortunately, due to a number of constraints from upper tier state actors, service delivery extension efforts have stalled.

4.4.2.1 Background

Korail Basti is one of the largest and highly populated slums in Dhaka, located near the city centre. The slum formed in 1974 on 90 acres of public land as migrant laborers from the rural north arrived looking for employment opportunities in the growing mega city. In 2010, it was home to over 20,000 families accounting for over 100,000 people. The slum is situated within the higher income Gulshan, Banani and Mohakhali residential areas, along the west bank of Gulshan Lake. Despite its high population density and support from DSK, the local CBO has been unable to secure water and sanitation connections through DWASA.

The basti's size and diversity of livelihoods highlights the economic contribution of informal sector workers to the mega city's resilience. The major occupations of slum dwellers are segregated along gender lines. The occupations of the male residents is divided into rickshaw pullers (forty percent), day labourers (twenty three percent), small vendors, auto and push cart drivers, street vendors, beggars, rag pickers and seasonal workers. The occupation of female residents can be divided into garment workers (sixty five percent), maid servants, rag pickers, street vendors and day laborers. The Average household monthly income is BDT 3,000 which varies from BDT 1,500 to 10,000. The major household expenditures include food, rent (BDT 1,200-2,000 per month), water (BDT 120-150 per month), fuel wood (BDT 200- 400 per month), electricity (BDT 100-300 per month), medication and other incidental expenses. A bazaar with over 200 shops is located in the heart of the slum with over 800 other shops spread throughout the basti. Over 22 NGOs and INGOs operate in the basti and provide support to 18 informal schools, 3 health clinics, 5 *masjids*, 6 *madrassahs*, 2 markets and 2 registered clubs. There are also a range of child care, microcredit for sustainable livelihoods, empowerment activities and awareness-raising services. As such, the slum serves as a 'research hub' for national (Dhaka University) and international universities (BRAC), institutes and NGOs.

Korail is challenged by poor infrastructure which results in dilapidated households with poor living conditions. Poor infrastructure that constitutes dilapidated lake front slums, inadequate drainage, deteriorating foot paths, narrow lanes and illegal water connections has led to the spread of unhygienic open latrines, a lack of gas supply (for cooking), low household incomes, low caloric intake (less than three meals a day), insufficient medical care and insufficient education infrastructure. Unresolved disputes and poor documentation regarding land ownership by upper tier state actors has also led to the ongoing threat of evictions.

Water and sanitation facilities across the slum are in very poor condition. There are only 3 official supply connections that have been connected to DWASA's nearest water main. However, there are 22 unofficial water supply lines which have been illegally connected by organized crime gangs to the same DWASA main. The illegal supply of water to slum dwellers is being distributed through 1,295 household connections at a cost which is 15 to 16 times higher than the DWASA rate. Each household pays in the range of BDT 100 - 200 per month for an intermittent, contaminated supply. The illegal water lines are run across the lake and are composed of rubber hoses which are taped together, end to end. As a result, the flow of water from 'good quality' DWASA main lines, becomes contaminated once it is piped

through the contaminated lake water. Most of *Korail's* sanitation facilities are in very poor condition. Over 1,000 toilets are in use, but over seventy percent of them are unhygienic. Many of them are connected to the lake water, which in turn contaminates the illegally piped water which supplies the slum.

4.4.2.2 Intervention

NGO engagement of the slum community started with education and advocacy. In 2000, DSK began work in *Korail* in areas of public health and hygiene promotion. After the initial assessment, DSK learnt that the root cause of poor health was the ad hoc and insufficient approach to sanitation. DSK capacity building workshops contributed to the strengthening of the slums' CBO, which contributed to slum community mobilization beyond the project period⁹⁷. In 2002, DSK began implementing a water and sanitation project that targeted 5,000 households. As a result of DSK-CBO collaboration, 88 community latrines, 376 single/twin pit latrines, a drainage system and 5 bathing stalls were installed to serve over 3,000 families. The application for a water connection through DWASA was denied, due to intergovernmental tensions regarding departmental ownership.

Over the next several years, education and crisis management further solidified the bond between NGO and CBO. In 2003, DSK broadened its water and sanitation program with support from The British Department of Foreign Affairs and International Development (DFID) and Water Aid Bangladesh. The focus was on community empowerment and asset development for water and sanitation to reduce the prevalence and threat of diseases. In 2004, DSK implemented the WASH intervention in one part of *Korail*, targeting 5,000 households. Later on in 2004, a devastating fire gutted over 4,000 thousand homes, incinerating most of the homes and their contents. When DSK provided emergency water and sanitation facilities to the affected families, it provided the first trust building event between DSK and the *Korail* community, which led to deeper engagement and planning. First, a CBO was established with a mandate to improve coordination between NGOs, state actors and donors. It became clear that a

⁹⁷ The CBO leadership has responded to the poor quality of service extension by the DCC in waste management and in response, has organized general strikes for the slum dwellers, so as to draw a response from the city. This effort was successful and when local labour demanded that services be extended to them, the city responded.

'Master Plan' was required for *Korail*. Over 200 community leaders from across the basti participated in its drafting. When the plan was taken to lower tier state actors, the DCC and DWASA, officials committed to assist with plan development. During the course of engagement, the CBO identified the major human development problems as water supply, sanitation (unhygienic latrines), poor drainage, constrained mobility (lack of a footpath), poor housing and low income. Solutions outlined in the Master Plan included shelter and housing, livelihoods, health, WASH, education, infrastructure development, capacity development, and lobby-networking-advocacy.

In 2004, DSK and the *Korail* CBO took steps to extend the municipal water supply to *Korail's* slum dwellers. Unfortunately, due to DWASAs inability to establish a connection to the nearest water main, no legal access to the municipal system was obtained. Many DWASA officials visited the slum during this time, but due to the political economy of land ownership, no progress on connections was made. This instance demonstrates the inability of lower tier state actors to extend services, as a result of mismanagement at the upper tiers of the state. In the interim, slum dwellers have become dependent on unofficial and unsafe water which incurs a high cost⁹⁸. On average over BDT 100 to 200 is spent per household on an intermittent and contaminated supply of water for drinking and cooking. The cost is as much as 10 to 15 times higher than the DWASA tariff for municipal water. In the meantime, the DCC developed drainage systems and a footpath to improve pedestrian mobility. A number of other footpaths and drainage systems were improved through NGO-CBO collaboration. Cash allowances for the poor and savings and local service providers were provided by the NGO and CBO to ensure that targeted hard core poor households are raised from poverty. The results have been increased income generation, improved caloric intake and food intake and improved household food security (DSK-SHIREE, 2011). Persistent efforts from the CBO caused DSK to bring the community into another project, which strives to establish a water supply facility in the slum through continued lobbying and advocacy with

⁹⁸ The illegal and unsafe connections are provided by the local 'water mafia' and their accomplices. First, a sophisticated network of gangs, political leaders and administrative officials identify a service gap in the absence of state infrastructure. Then, through a series of regular payments and informal arrangements, the closest DWASA line is 'tapped' for an illegal connection and lines of loosely bound piping are run across the surrounding lake and into various connection points. These pipes often leak at the joints (which are taped together) and allow storm and waste water from the lake to contaminate the clean water lines. Slum dwellers are then charged to access the water which is turned on two times per day.

DWASA officials. During 2004, cluster latrines and solid waste collection bins were provided for community managed solid waste collection.

In early 2008, *Korail's* CBO submitted a formal application to DWASA headquarters, requesting the provision of a water supply connection to the slum. After several months of lobbying by DSK and the CBO, of both DWASA zone managers and head office officials, an agreement was reached. In mid-2009, DWASA implemented a joint initiative with the *Korail* community where the city would supply piped while operations and maintenance would be the responsibility of the community. Subsequently, DSK started the mapping and surveying exercise of the slum community and the household layout. Engineering drawings were drafted to lay the framework for a water distribution network that would target one hundred percent of *Korail's* households. Meanwhile, *Korail's* CBO organized meetings with slum dwellers and DWASA officials. The community agreed to maintain the system as per DWASA's operating requirements. Construction of the water supply network started with a service initiation date of December 2010. Then construction was halted due to pressure from higher income neighbourhoods and elected officials. Wealthier communities were concerned that extending DWASA service to the basti would result in reduced services and pressure. To complicate matters, three different state departments are disputing land ownership where the basti is situated. Although the land is government owned, the departments are backed by powerful, upper tier state actors who have an eye on rising land values. In the meantime, DWASA infrastructure remains within the slum area, waiting to be used. In other words, upper tier real estate speculation persists at the expense of lower tier capital investment and revenue flows. DWASA is losing additional revenues as illegal connections are supplying and contaminating piped water to the slums. Water is then poured into holding tanks, which take up space, are located next to latrines and are exposed to contamination. Costs are 10 times higher than what the public pay, which causes stress to slum dwellers. DSK and the CBO need land disagreement resolved before deep tube well digging can begin. Illegal gas and illegal electricity connections also abound.

As of 2011, DSK's project work has achieved focused results in sanitation and other infrastructure. Over 87 community latrines (serving 3,000 families), 430 single pit latrines (serving 675 families), hygiene promotion campaigns (engaging 4,000 families of which 1,670 are extremely poor) have been launched. Clusters of sanitary latrines are designed and managed by groups of households, under the oversight of the CBO. Solid waste collection has also been initiated for 4,000 families through the operation of 4 waste collection vans and 132 composting barrels. In terms of infrastructure, approximately 18,000

square feet of foot paths and drainage channels have been developed under the project. Over 12,000 feet of lane and by-lane ways have been constructed by the DCC, NGOs and Community over the period.

In 2013, under the LIC component of an ADB funded project, DWASA came forward to meet the community demand for a service connection. DWASA launched a project to establish a water supply network inside the slums with the aim of providing access for all slum households to DWASA's water supply system. DSK and the community extended their support to DWASA for the work. Legal access has been agreed upon in return of a CBO managed billing payment system and access to sanitation.

This case study illustrates how lower tier non-state actors are able to mobilize, develop capacity and engage lower tier state actors for service delivery and support. The case study also illustrates how upper tier actors indirectly and directly constrain service delivery to informal settlements. First, upper tier actors fail to facilitate the resolution of land ownership claims which in turn, stalls development efforts. Second, the collusion of upper tier officials and criminal elements that permits the pilferage of DWASA public water supply undermines the self-sufficiency of the lower tier utility and normalizes criminal operations in the informal settlement. The case of *Korail Basti* demonstrates that upper tier constraints are not solely the result of policy failures, but also of elite interests. The ability of lower tier state and non-state actors to persist in extending service to informal settlements without any measure of political representation or intergovernmental support demonstrates the value of advocacy with lower tier actors. The pre requisite in the case of DWASA of course, is the institutional autonomy frameworks.

4.4.2.3 Next Steps

DWASA has promised that it will establish a water supply network inside the *Korail Basti* for slum dwellers. DWASA officials have indicated that the network layout will maximize the number of legal connections to each of the compounds (clusters of some 10 to 30 houses). A community Water Point (WP) will be constructed in each compound (10-30 households) as part of a joint initiative between DSK, *Korail* community and the CBO. Construction of the WP will be performed by DSK. Fund for the construction of the WP will also be borne by DSK through a cost recovery system or cost sharing mechanism, as determined in discussions with the community. A management community will be formed by the compounds' users and 2 care takers will be selected to assume responsibility of the operations and maintenance duties of each Water Point. The Management Committee will submit the application for the WP to DWASA and DSK will facilitate the necessary administrative tasks to obtain the service connection in the name of the community. The community can also apply for assistance through

the community revolving fund for the WP. DWASA will bill the CBO on a monthly basis until the CBO assumes the task of monitoring bill payments on a regularly basis.

The breakdown of responsibilities will require active engagement between the lower tier actors (NGO, CBO and DWASA). As per the DSK WP models, the users (the community's women) will select the site and model according to their need and available location. Then the plan drawing and design will be modified. A procurement subcommittee will be formed (CBO and DSK) for acquiring the necessary materials. The DSK engineer and committee will oversee the quality of the material and supervise the construction work and selection of labourers. Following completion of work, the WP or cluster latrine will be handed over to the Management Committee, who will oversee the operations and maintenance of the system. DSK will train the committee on the technical aspects of operations and maintenance. The main lane has been constructed by DCC, the *Korail* CBO and other NGOs. Drainage facilities have also been developed by DCC and NGOs but have witnessed poor maintenance. There are also parts of the slum that are without a drainage system. The CBO and DSK have agreed to mobilize the community to maintain the drainage system on a regular basis. The cluster CBO will take responsibility to look after the cluster activities.

Due to political and economic constraints (DSK, 2014), work on the extending the distribution network to the various compounds in *Korail* has been halted. This move has also been passively supported by the surrounding middle income communities, who fear loss of water pressure and service, should a medium sized distribution main be used for supplying water to a large dense informal settlement. They constraints to progress are as follows. First, land ownership tensions have been ongoing between three separate government agencies backed by upper tier state actors. Second, there is pressure from organized crime gangs that are benefitting from the resale of pilfered water. Finally, the DWASA bureaucracy has been unwilling to address either of these challenges due to fear of retaliation from upper tier state entities.

4.5 Dhaka's comparator variables and case studies

Primary and secondary evidence from Dhaka reveals a history of marginalized municipal development. A centralized upper tier of government bearing the impressions of colonial rule and elitism has persistently neglected the needs of lower tier service delivery actors. The absence of political representation, intergovernmental support and insufficient pro poor initiatives points to continued

neglect by the state's ruling elite and elected officials. However, in country research has revealed the prominent role of two comparator variables in extending service delivery to informal settlements. The accountable and transparent operations of an autonomous water and sanitation service delivery provider (DWASA) have generated several outreach initiatives that target informal settlements. Evidence points to the prominent role played by the current senior management team and Director General, who have initiated a people centred service delivery model. The success of these programs is constrained by the absence of intergovernmental support or more specifically, upper tier actors locked in land ownership disputes and development projects. Civil society and donor activity has countered the inertia and barriers presented by upper tier actors and elite interests, by facilitating the engagement of informal settlements and representative CBOs with lower tier state actors such as DWASA. The persistent lobbying, knowledge sharing and relationship building with DWASA officers by community based actors (DSK and the CBOs) has led to efforts at supplying water and facilitating sanitation services.

The influence of these two comparator variables is also illustrated in the case studies. Outcomes from *Korail Basti* and *Kalyanpura basti* reveal the beneficial role of an accountable and transparently run lower tier state actor (DWASA) and its cooperation with service delivery facilitating NGOs (DSK) in engaging socially mobilized CBOs. In *Korail*, intergovernmental tensions as well as disabling class tensions from surrounding higher income communities, stalled efforts at extending service delivery. Calls to remove barriers to service extension, by engaging elected officials and obtaining support from upper tier state actors were ignored. Nevertheless, pressure by the NGO mobilized CBO continues to push for progress and reinvigorate service delivery line construction and extension. It can also be argued that the attention drawn to *Korail Basti's* water and sanitation woes has also illuminated the political economy of illegal service delivery in surrounding area and pilferage of the public water lines. In Kalyanpur Pura basti, a lack of intergovernmental support has led to market based developers and provincial planning authorities forcing the eviction of the community on several occasions. Nevertheless, a mobilized and more resilient CBO has emerged, returning to the site and rebuilding infrastructure and service delivery to sanitation lines.

Findings from Dhaka reveal the relationship between service delivery extension and accountable and transparent lower tier state actors and mobilized civil society actors engaged with informal settlements.

5 Research Findings – Karachi

The second of my three results chapters details findings from Pakistan's mega city, Karachi. I begin the chapter with an overview of Pakistan's national policy context and recent calls for 'municipal governance' reforms. The chapter continues with an overview of administrative change from the Mughal period to colonial rule and post-independence. Following this overview, I summarize the current condition of key service delivery institutions across Karachi. I then summarize the findings from the water and sanitation service delivery context grouped by comparator variable. The influence of comparator variables on service delivery is then highlighted through the exploration of two case studies. The experience of two informal settlements with service delivery is examined with emphasis placed on the role of different comparator variables. Let us now turn to the salient points of the national context within which Karachi has grown.

5.1 Country and Municipal Overview

Since its independence in 1947, Pakistan has undergone a rapid process of urbanisation. The urban population, as a proportion of the country's total population, increased from 14.2 percent in 1941 to 32.5 percent in 1998 (Hasan & Mohib, 2003). Pakistan's urban population is expected to grow from 37.9 million in 2000 to 56.7 million in 2025. This increase of fifty percent will present challenges in housing as well as low income area engagement (SDPD UNDP, 2010). The country's challenges with urban growth are reflected in Karachi's growing pains. The earliest estimates of Karachi's population place it at 436,000 inhabitants (Hasan & Mohib, 2003). By 1975, the population had grown to 4.0 million. This grew to 12.1 million in 2007 and is forecasted to balloon to 19.1 million by 2025 (Metropolis, 2009).

Neoliberalism and globalization have had financial and economic consequences for the cities labor pool. The mechanization of Sindh's agricultural sector has led to the dominance of large landlords and marginalization of wage workers and small landholders. Karachi's industrialization and reliance on export led growth has also served to attract rural labourers to the city in search of work. The informal sector has grown to become a key component of Karachi's economic activity and bridges the gap between the informal poor and lower classes which provide services to the wealthy (Khan, D.S., 1998; Hasan, A., 2002). The informal sector provides as much as seventy five percent of the jobs in the city (Hasan, 1992). Informal sector labourers provide cheap labor to undocumented companies that avoid 'paper policy compliance levels' of the government according to SMEDA (Small and Medium Enterprise

Development Authority) and the ILO (PILER, 2005). This number is swelling due to unemployment and insecurity in rural areas and a lack of development activity (Khan, D.S., 1998). Many of the politically active and socially mobilized members of the informal sector are 2nd and 3rd generation inhabitants of the mega city. Many informal sector labourers reside in '*katchi abadis*' (informal settlements). As a result of their permanent residence in Karachi, the younger informal sector labourers have limited connections with their rural heritage (Hasan, A., 2002).

As formal approaches to planning and housing fail, migrant labourers turn to illegal developers and the land market to acquire a plot on which to build (Hasan, 1990). The problem is, surging levels of growth is leading to stratification within the informal sector and those without access to skills and education are being marginalized. Macro shocks are forcing the upwardly aspiring to coalesce with their poorer counterparts across the informal sector, forming different household compositions (Hasan, A., 2002a; Hasan, A., 2002b). The informal workers occupy a unique sociological niche in society that is under researched and not appreciated (Khan, D.S., 1998). They are critical as they provide services to the lower income working class, even though their presence may disrupt traffic and flow of city life for the upper income residents. Many of the informal sector workers and poor are women, who occupy precarious positions of labor in garment factories and other informal enterprises linked with the textiles sector (PILER, 2001, 2005). And yet many of these informal sector workers navigate through social and economic barriers and challenges in order to carve out a livelihood and contribute to society (Ali, 2011). As conflict increases, their informal settlements are seen as 'home' relative to Karachi as a whole (Verglaik, 2009). When the hawkers of *Saddar* bazaar were evicted in the 1990s, subsequent dialogue and engagement resulted in an alternative plan. This policy turn occurred once officials realized that their presence was required for economic growth (Hasan et al, 2008). The challenge is, that as light engineering and manufacturing shut down and electricity usage increases, there may be fewer opportunities for formal employment and informal sector wages may suffer (Hasan, 2002).

5.2 Historical Overview

Historical records indicate that Karachi's origins were as a small fishing village which started almost 300 years ago (Wajidi, 2000). The population of Karachi in 1729 was 250, the result of some trade and port traffic in the 17th and 18th centuries (Hasan, A., 1999). When a nearby harbor silted over from heavy rains, merchants relocated to the smaller port of Karachi. Hyderabad and Thatta were historically the seats of power in Sindh (Zaidi, A., 2000). Between 1729 and 1783, the seat of power changed hands as

the rulers of Sindh tried to control its strategic location. In 1783, Karachi fell under the control of most powerful family at the time, Sindh's '*Talpur Mirs*'. The ruling family erected a fort at the entrance of the town, which made Karachi impregnable. The town population was 13,000 in 1809 (Wajidi, 2000). The composition of Karachi was to experience dramatic changes with British rule.

In 1839, Karachi was conquered by the British and began its transformation into a major port of trade and commerce. When the British entered, the population was only 14,000 and was composed mainly of the ethnic Sindhis. The capital at the time was Hyderabad. When the capital was captured in 1843, the annexation of the region by the British began, dividing Karachi's political significance. It was soon made the capital of Sindh, a district of the Bombay presidency. The city was then divided into British settlements and the native city. The British quarter was developed with civil lines, formalized infrastructure and the old bazaar of *Saddar*. A flourishing cotton export industry drove port improvements and over time, large companies were developed to transport cotton and wheat down the Indus, across the bay to the port. Many traders moved to Karachi and the population increased from 14,000 in 1838 to 57,000 in 1856. During this period, a municipal committee was set up for Karachi, the first of its kind in British India.

British rule continued to guide Karachi's development in spite of resistance and external change. In 1857, native troops rebelled in support of independence from the British, but were crushed. This continued until 1861, when the US civil war disrupted US cotton exports and the material was increasingly imported from the rural areas of Sindh through Karachi, now linked through a robust railway line (Zaidi, A., 2000). From 1881 onward, the city's population doubled with the opening of the Suez Canal and the proximity of Karachi to the empire. Oil extraction in Sui and pipelines and services extended to the city's fringes, shifting the population and contributing to urban sprawl. From 1901 to 1911 the population increased by thirty seven percent. Migration continued well beyond independence and the city's population continued to increase. In 1935 Karachi became the capital of Sindh and the establishment of judicial, parliamentary and other government offices entrenched the political role of the city, shifting attention away from Mumbai.

5.2.1 Post-Colonial Institutional Setting

Following independence, Karachi's growth continued to surge, spurred by geo-political changes and market led migration. In 1947, Karachi had a population of 45,000 and city boundaries that reached out

to more than 1,200 peripheral settlements and villages (Hasan, A. 1997). During the 10 years following partition, over 600,000 refugees from India migrated to Karachi, changing the ethnic composition and power balance of the city. The resulting political tensions and ethnic divides have persisted since. By 1951, the population of Karachi had swelled to over 1.1 million, mostly due to migrants from India (Zaidi, A., 2000). The industrialization of agriculture saw Karachi's population grow to 3.6 million by 1972 as the country's exports made their way through the city to foreign markets. In the 1980s, waves of migrants from Soviet occupied Afghanistan complicated the ethnic scene in an already volatile Karachi. Migrant *Pakhtuns* found employment in the industrializing city whose annual growth rate had declined, despite a growing population⁹⁹. The resettlement of *Pakhtuns* has continued unabated, spurred by the U.S. led war on terrorism, drone strikes and instability.

During the early years following independence, Pakistan's administrative structure also witnessed a steady expansion. Centralized power structures were accompanied by bureaucratic inefficiencies leading to an elite cadre of institutions at the upper tiers of the state (Islam, N., 1998). The creation of this cadre, embedded in the Pakistan Civil Service Academy, mirrored the same elitist and arrogant approaches to civil servant development as its Indian predecessor. In colonial era fashion, only the wealthy and elite were educated and admitted to the service, creating sophisticated social and class based networks (Husain, I, 1998). Over time, waves of civil service graduates displayed a persistent contempt for Pakistan's common people and avoided mixing with the masses. The disengagement of this elitist bureaucracy would allow them to wield power in an economically driven, donor serving economy. This behavior would also be passed onto policy development approaches and the top down paternalistic approach that would move from period to period (Siddiqui, T., 2006).

Over time, this upper tier became increasingly occupied with manipulating weak political institutions and retaining power within the bureaucracy (Islam, N., 2008). Loose coalitions of power sharing

⁹⁹ In recent years, security studies and political economy have coined the term 'the Talibanization of Pakistan' in reference to the spread of Islamic fundamentalism and a distinctively Afghanistan brand of Islam and Shariah law. However, security studies based references overlook the lingering social and political effects of an unstable Afghanistan on Pakistan. The increasingly porous border and the sophisticated networks of support, settlement, refugee migration and resettlement are features of recent history. Also, the resilience of the Pakhtun and their social formation within the heart of Karachi's informal sector is understated and perhaps only understood by the antagonistic motivations of Karachi's ethno-political parties.

followed, as landlords morphed into an industrial class and mediation with military leadership entrenched the senior levels of the bureaucracy in a role that shifted with political times (Zaidi, A., 2011). An underdeveloped bourgeoisie was unable to usurp political control from a bureaucracy that had grown accustomed to sustaining the colonial apparatus of years past (Subramaniam, 2003). The literature agrees on the elitist culture of the state, with blame for policy failure shifting between military appointed and democratically elected elites. Although pro poor policies were introduced, they were not accompanied by sufficient resources from upper tiers due to gaps, corruption, lack of institutional strengthening and political will (The Network, 2006). In Karachi, this has translated into stalled devolution plans, continued upper tier policy dictates and the inability of local authorities to address their specific needs (Ali and Saqib, 2008). Karachi ranks 28th out of 110 districts in Pakistan with regard to the intensity of deprivation faced by the urban poor (SDPI, 2012).

Policy analysis overlooks the growing demands of the increasingly dense mega city Karachi and its needs for autonomy and empowerment. The KMC/CDGK's (Karachi Municipal Corporation/City District Government of Karachi) marginalization as a lower tier of government cannot be delinked from the concentration of power at the upper tiers. Local government frameworks were abolished with the end of military rule, as they were seen as instruments of the army, further weakening institutions (Haider and Badami, 2010). For example, following General Pervaiz Musharraf's failed devolution plan, Karachi's jurisdiction increased and rural districts along the fringe which were previously under the provincial government were left in limbo. This has failed consistent mayors, local bodies investors and villagers alike (Hasan, 2014). Furthermore, senior levels of the bureaucracy have held the majority of power without any plans of decentralizing or devolving decision making or resources (Abbassi, S., 2006; Khan et al, 2007). Reforms which attempted to allow the lateral entry of technocrats and allow for more oversight were simply tools employed to spread the patterns of patronage (Hasan, P., 1998). These challenges continue to constraint administrative development within the mega city (Haider and Badau, 2010).

It cannot be understated that the political actors within all of these institutions and groups, are influenced by political parties such as the Muhattada Qaumi Movement (MQM), Sindhi nationalists and the Awaam National Party (ANP) (Hasan, 2014). The ethnic discord persistently rattles Karachi's institutional settings. Ethnic politics, weak institutions and poor governance are leading to a lawless and tribal environment in Karachi (Isran, 2014). Studies on urban Sindh confirm this discord, outlining how

many elected offices are removed and replaced by provincially appointed leadership. This has led to demolition of *katchi abadis* (informal or unregulated settlements) and *goths* (small hamlets) alike, for political reasons (Hasan, 2014). Karachi's institutions have become weakened beyond strengthening and require substantial lobbying and organization by citizens through community based organizations (CBOs) and facilitating NGOs to extract sustained levels of service from lethargic and provincially dependent departments (Zaidi, A., 1998). There have been several calls made for devolution, but efforts towards devolution and governance reform still follow the same patterns as in the past – much on paper, but little in the way of implementation that will get the necessary machinery moving and more empowerment at the lower levels of the state (Ali and Saqib, 2008). As with its counterparts in Dhaka, Karachi is in need of reforms to address weak governance mechanisms, alternative modes of service delivery and participation of the poor in planning (Islam and Khan, 2007).

5.2.2 The condition of municipal institutions

Karachi's institutional landscape is made up of several national, provincial and municipal institutions, many of which have overlapping mandates and functions. The KMC (or CDGK) is the overarching local government for Karachi. The KMC is composed of 10 towns and 178 union councils (Metropolis, 2009). The institution has been challenged by limited capacity building and even dismissal as recently as 1993. The latter was the result of underdeveloped constitutional interpretations by concentrated and well networked political and bureaucratic elites (Zaidi, A., 2000). The experience of the KMC is shared by local governments across Pakistan, revived during military administrations and dismissed by democratically elected ones. The politicization of their functions, particularly in the case of Karachi, has stunted their managerial development and administrative evolution. It is widely agreed that tensions between tiers of government have crippled the ability of the KMC to provide sufficient levels of services for Karachi's growing population (Wajidi, 2000 vs. Hasan, 2008).

The KMC's ability to provide the full range of services has been marginalized by limited and often 'pilfered' revenue streams. Officially the KMC is responsible for planning, development, and maintenance of roads, lighting, drains, public health, sanitation, solid waste management, medical services, fire, and land control, removal of encroachments, libraries, galleries and social welfare. Many local schools and colleges are also run by the KMC. Revenues are obtained from the '*octroi*', a locally collected tax from Karachi's residents. The amount of revenue from this stream has not been reviewed for some time and most of the funds are siphoned by the provincial government. Where the revenue

streams are sufficient, it is largely due to slippage in capital development projects, which result in unused funds being siphoned to other operational, salary and 'miscellaneous' budget items (AREC, 1993, vol IA, p. 9). Other challenges facing the KMC include the actual number of property owners from whom tax is collected. In many cities across Pakistan, the transfer is only fifteen percent of the total revenue base (UU/WB, 2006). Similar to the lack of funds obtained from the province, the city receives insufficient grants from the federal government to meet its operating requirements (Wajidi, 2000).

The Karachi Development Authority (KDA) is responsible for managing the planning, development and resale of land in a city under increasing pressure from market forces. The KDA reports to the federal government and works in parallel with the KMC. The KDA reports to the Government of Sindh's Ministry of Housing and Tehsil Planning (MoHTP). The KDA is governed by its own administration and legislation, with no connection to local government (KMC) legislation or frameworks. The KDA runs the 'Karachi Master Plan' for the city, administers environmental controls and allocations of land for residential and commercial sectors as well as building control (Hasan, 1991). As the KDA is continuously under pressure from development lobbyists to allow for the sale and rezoning of land, its decisions are often at odds with other municipal institutions. When the KDA finds itself continuously giving in to political pressure on development it distances itself from the policies of other public institutions (Zaidi, A., 2011). The KDA has also become heavily involved in managing major capital investment projects and city planning (AERC, 1993, vol 4, p. 1). The misaligned roles and responsibilities of the KDA and KMC have contributed to inefficiencies in planning and management across the City.

Despite the development of Master Plans, the KDA has not been able to provide affordable housing for all segments of society due to a number of institutional failures. Master plans developed from 1950 onward were on such a small scale that they did not affect the overall housing situation in Karachi (Hasan, 1992). This has persisted to the present day with housing plans and schemes lagging behind a surging private development sector, which has emerged through nepotism and collusion with state officials. Political volatility has stymied plan development but has not resulted in alternative solutions. For example, the Greater Karachi resettlement plan in 1958 was on a grander scale than current plans and sought to relocate the city's inner city squatters to the outskirts. After relocation, the majority of resettled squatters moved back to the inner city to be close to places of work (Hasan, 1992). The third and fourth master plans for Karachi failed as they spent millions of rupees only to move and house a fraction of the urban poor. This was due to the lack of affordability of the schemes and lobbying by

development groups (Hasan, A., 1997). The Greater Karachi Master Plan has been politicized and the process continues with no change in administrative behavior (Ecil, 2012). Many have argued that revenue generating and planning powers be transferred from the KDA to the KMC, to align planning with operational concerns, improve financial sustainability and generate accountability for the citizens of Karachi (Wajidi, 2000; Hasan, 2008).

A number of other institutions carry out municipal functions in Karachi, but they are in parallel and at odds with one another. For example, The Karachi Electrical Services Corporation and the Sui Gas Company are both energy based utilities and should share some common management and governance features. However, there is no integrated planning (AERC, 1993). A myriad of national, provincial and municipal government agencies operate in Karachi with overlapping roles and responsibilities¹⁰⁰. Karachi. Public administration researchers have pointed to the absence of a single coordinating body as the reason for duplication and conflict between planning and implementation between various departments (Wajidi, 2000).

Water and Sanitation is managed by local utilities across the country's larger towns and cities. It was not until 1979, that the Karachi Water and Sewerage Board (KWSB) was established for the management of water and sanitation needs of Karachi. The KWSB is a subsidiary of the KMC as defined by the local government ordinance. The KMC, as such, must provide the KWSB with sufficient funds, as per the ordinance, to sustain its operations. This has been contested in recent years, with the Ministry of Sindh and KMC both battling for control of the KWSB and its steady flow of water revenue. The KWSB had undergone substantial reorganization to decrease its staff numbers and operating costs. However, the result of provincial-MQM wrangling was the deputation of political party staff (MQM) to the utility to ensure that its policies remained in alignment with party dictates. Caught in the midst of this intergovernmental tug of war, the KWSB continues to be indirectly impacted by the KMC's development

¹⁰⁰ SITE, Sindh Highway Department, planning and development of the government of Sindh, various cooperative housing societies, KPT, Port Qasim authority, Pakistan steel mills, airport development authority, national highway authority, national mass transit authority, Pakistan public works department, civil aviation and military estate services are all national, provincial and local government agencies with

planning priorities and directly dependent on the KMC for funds¹⁰¹ (even though it should be empowered for self-sufficiency from the water rate). A number of studies have called for structural and management reforms, but there has been a lack of provincial will to disentangle its interests from the utility.

5.2.3 Calls for Political and Administrative Reforms

Although many civil society and private sector commentators have called for state led reforms to address the mega city's poor state of service delivery, resistance from political, economic and ethnic factors has stalled progress. A declining state of law and order has been exploited by rising gang violence. Insecurity rooted in ethnic and sectarian tensions has been complicated by the war on terror leaving deeper divides unresolved. I will elaborate on these root causes during my discussion of the water and sanitation service delivery context. In spite of such volatility, a number of initiatives have been launched to deal with the social realities of unplanned development and seemingly unmanageable service delivery to the informal sector. A few key organizations have struggled to mitigate the negative effects of poverty and improve human development. During the 1990s, the province-based Sindh Katchi Abadi Authority (SKAA) established itself as a public sector model of one-window housing assistance and service delivery to the poor (Government of Sindh, 2011; Zaidi, A., 2008). Unfortunately, once the leadership of then Director General Tasneem Siddiqui departed, the SKAA became defunct. Once ex DG then move to the not for profit sector, the institution retreated from engaging the informal sector. Despite the decline and marginalization of the KMC, the corporation has only recently begun to engage a small group of registered NGOs (CDGK, 2011). This is reflective of the slow, yet discernible trend found across Pakistan in which the state is moving away from being the monopoly provider of social services and is outsourcing service delivery for a range of social services to non-state actors (Anwar, H.N. and Zafar, M.N., 2003).

¹⁰¹ The electricity bill of the KWSB continues to be subsidized by the Sindh provincial government. It is but one illustration, in financial terms, of how the KWSB remains dependent on the province for service continuity. The province in turn, refuses to empower the KWSB with support or authority in improved revenue recovery support, permitting and encouraging the dependency on the KMC for funds.

A number of 'self-help' oriented civil society actors have struggled for recognition and acceptance in Karachi, despite the slow response from state actors. Since the 1960s, followers of Akhtar Hameed Khan and Abdul Sattar Edhi have sought to make up for Karachi's poor state of service delivery in sectors from water and sanitation to health care. The number of non-state actors has also grown. Pakistan currently has approximately 45,000 citizen organizations employing about 300,000 persons and 200,000 full time volunteers. While state engagement is inconsistent, the legal framework is enabling for an otherwise fragmented civil society (Zaidi, A., 2008). Civil society actors concerned with service delivery have left an impression on Karachi's informal settlements by working in cooperation with lower tier state actors. Over time, these service delivery oriented civil society actors have contributed to high level policy documents such as the national housing and shelter and national sanitation policy, which clearly outline the role of civil society actors (GOP, 2006; Hasan, 2007). However, policy implementation is complex and civil society actors in housing and shelter (SAIBAN) as well as water and sanitation (OPP RTI) recognize that change will take time. Despite the calls for reform, devolution and decentralization of power from upper tiers of government has been ineffective (Khan and Cheema, 2005). A once technical assistance oriented donor sector¹⁰² has turned to large infrastructure projects to international and where possible local engineering, consulting and service providers (ADB, 2008). The result has been the engagement of large scale projects and firms, at the expense of local initiatives that take into account long term sustainability and community ownership. Institutional strengthening and addressing mal-governance is not a high priority. The effects of misaligned institutions and uncoordinated development activity by non-state actors have had a range of outcomes for informal settlements. I now turn to a discussion of their implications for the water and sanitation context of Karachi.

5.3 Water and Sanitation Context

Karachi's water and sanitation service delivery context illustrates how a weak institutional and governance framework can be exploited by state and non-state interests to the detriment of the public

¹⁰² Several confidential consulting reports were reviewed and referenced through anonymous interviews and strongly recommend the institutional strengthening of the KWSB by the province. Persistent levels of political neglect have led to the departure of many donors from the Sindh water and sanitation sector, until the political will to enable and empower the KWSB and its mandate emerges.

good. A political economy of water supply and pilferage has drained the KWSB of service delivery losses in the billions of rupees. Upper tier neglect and elite capture of public goods have drawn a response from civil society groups. A number of self-help models have led to advocacy for water supply and sanitation solutions for informal settlements. As a result, the majority of households in Karachi have piped water connections and improved sanitary lines (UN Habitat, 2013). Unfortunately, issues of water pressure, supply and overall service persist. When the supply of services is scarce conflict results along class and ethnic lines.

Water supply and distribution is the mandate of the KWSB. The utility has suffered from institutional neglect, politicization, insecurity and a lack of horizontal support from adjacent departments. According to many consultants, donors and civil society actors; the utility is in a state of crisis. Current leadership includes a visionary managing director with some support from a few senior directors, armed with a plan to reduce non-revenue water. His recognition of advocacy and service delivery oriented civil society actors has broadened recognition of KWSB's weaknesses and intention to reform. In the absence of the 24/7 provision of water supply, bulk water distribution to '*awami tanks*' (free tanks) have been used for consumption in partnership with local CBOs, NGOs, private and informal sector actors (Ahmed and Sohail, 2003). Partnerships with non-state actors are turbulent as the utility is trying to shift the burdens of revenue collection away from commercial ratepayers towards households. While the wealthy are unwilling to pay, the utility has turned to the poorer communities who civil society actors complain are not receiving adequate supplies.

Responsibilities for Karachi's sanitation collection and treatment are more complex as trunk mains once under the jurisdiction of the KMC, have now shifted to the KWSB. Low cost sanitation solutions developed in partnership with civil society have yielded immediate benefits at the laneway and household level, where communities have built box drains and collection networks under the guidance of the OPP RTI (Orangi Pilot Project Research and Training Institution) network. The majority of these low income communities have thus been regularized through water and sanitation connections and documentation as per the above stated Katchi Abadi acts and legislation. A number of *Goths* or villages in the surrounding periphery are being absorbed and are under the threat of eviction. Extending services to these communities, whose jurisdictional boundaries are contested between provincial and municipal politicians, is difficult and has resulted in violence. Wastewater reuse has been proven for agricultural application in small towns of Sindh, but it is yet to be seen on a larger scale for cities (IWMI, 2002).

Stormwater management is linked to sanitation and demands state attention as development and climate change result in seasonal flooding. For example, blocked and encroached drains are a growing problem across the mega city (Rehman, 2004). The KMC has now taken ownership of drainage cleaning and de silting from the KWSB. A concern is that this will likely result in zoning and by-law enforcement with respect to illegal developments and settlements. In all service delivery streams, low income settlements along the expanding urban fringe are likely to experience lower levels of service from a utility under siege by elite interests.

5.3.1 Political representation

Primary and secondary research revealed that politicians are not interested in engaging and providing permanent service connections to low income settlements. The reason for this is that many elected officials withhold access to services until political support and/or votes are secured. Interviews and documented reports from low income communities revealed that citizens found politicians to be of no use in facilitating water supply to the settlement despite it being such a critical resource (Ahmed, N., 2008). NGO representatives have expressed some optimism with the 'slow and steady approach.' According to one prominent director, 'when political representatives have been approached for involvement, they may over time 'support' civil society led efforts, but they have not been found to be proactive.'¹⁰³ Deeper examination of implementation constraints reveals indirect interference and politicization of lower tier service providers by elected leadership at the upper tiers of government. On this point, NGO activists and researchers have raised attention to organized crime, at a risk to their own efforts.

Primary research and interviews with lower tier state and non-state actors revealed the involvement of politicians and upper tier state functionaries in the operation or sustainment of illegal hydrants.¹⁰⁴ These

¹⁰³ Interview with Non-Government Organization Director, Karachi, November 7th, 2013

¹⁰⁴ A KWSB operator was killed while operating an illegal hydrant. Initially, staff members thought that the individual was a representative of an extremist group and violence was related to ethnic tensions. However, investigations later revealed that his death was a targeted killing, the result of a feud over control of the illegal hydrant and the division of revenues among different political actors. These actors were found to be high ranking MNAs and MPAs from the federal government. In fact, upper tier actors have even approached appalled KWSB staff on 'how to establish a private, illegal hydrant'.

hydrants are essentially illegal connections to public water supply mains. This network of illegal hydrants drives Karachi's water tanker industry, which services those parts of the city that struggle with low water pressure. According to the water tanker association, over forty percent of the water to the city is supplied by the tanker industry. There are over 5,000 registered water tankers of various sizes operating in the city. Civil society actors point out that if the KWSB were able to supply water to all of these homes, tanker operations would halt (Rahman, 2004). Otherwise, the ongoing theft of public water formalizes the city's dependency on an illegal practice (URC, 2009).

In order to further their control over the utility, elected officials have contributed to the current state of mismanagement that plagues the KWSB. Soon after a substantial downsizing of the utility's labour force in the 1990s, the KWSB was forced to redouble its size and take on several thousand political appointees from the PPP and MQM. An interview with a KWSB official drew the following response 'we know what to do with the KWSB in order to turn it around. We have seen it with other utilities. However, there is no political will in lieu of all of the political appointments. I have had elected officials come to me personally asking for the establishment of an illegal hydrant to line their own pockets.'¹⁰⁵ This behaviour highlights the political influence on the KWSB by the country's most powerful political parties at the expense of effective management, service delivery to the water rate payer and the underserved informal sector (Ahmed and Khan, 2006). Karachi's professional stakeholders do not receive political backing or recognition, which is a source of problems for planning (Hasan, 2014).

KWSB management has indicated 'despite years of independently funded studies and donor led lobbying for institutional reform, it has been difficult to convince politicians of the need to adopt a transparent business model.'¹⁰⁶ Documents from the past two decades outline several initiatives launched at regional conferences (South Asia Conference on Sanitation), but little implementation is seen on the ground (MOE, 2006; Rahman, 2012). Multilateral donors are also only interested in moving forward with projects where there is structural commitment from the highest levels of the province. Civil society commentators point to high level policies as the result of civil society lobbying and

¹⁰⁵ Interview with KWSB Municipal Officer, Karachi, November 10th, 2013

¹⁰⁶ Interview with KWSB Managing Director, Karachi, November 10th, 2013

engagement with lower tier actors (Khan, Siddiqui and Hasan interviews, 2014). I turn to this group of lower tier state actors in the next section.

5.3.2 Administrative accountability/transparency

Primary and secondary research revealed little evidence of regular reporting, audits or process reviews across the KWSB. Donor and technical reports conclude that this is the result of a troubled relationship between the utility, upper tiers of the state and adjacent departments (JICA, 2008). Despite normally being silent on threats to its operations, KWSB management has admitted that pilferage results in thirty seven percent losses to a water supply which does not meet seventy five percent of demand (WB, 2012). The result is fifty percent of losses to the bottom line (KWSB, 1989). The lack of funds results in the absence of 24/7 service, the prevalence of waterborne illnesses, treatment of less than ten percent of wastewater and metering of only ten to fifteen percent of the total number of accounts. Senior KWSB officials have lamented ‘by the end of the month, with only two days to spare, the Executive Director is always scrambling to address cash flow issues so that we can make payroll.’¹⁰⁷ Energy expenditures constitute twenty nine to fifty seven percent of the utility’s total budget (KWSB, 2014).

Primary and secondary evidence also revealed misalignments between agencies and organizations that engage the KWSB (Welle, 2006; Hasan, 2014). The KWSB alleges that it is often over charged for electricity by a power utility that cannot ensure adequate supply. Tensions have also persisted between the KMC and KWSB as to which institution would assume responsibility for the city’s storm water drainage system. The city’s ‘*nalas*’ are often clogged with solid waste and require constant cleaning and de-silting. When seasonal flooding brings the issue to media outlets, the KMC regularly directs responsibility to the KWSB. An already resource strapped KWSB is then forced to focus solely on drainage management, neglecting other operational priorities. This places downward pressure on the financial position of the utility, forcing it to return to the KMC for financial assistance (OPP RTI, 2000). Donor driven loans and top down projects have also added to the KWSB’s debt. When the KMC has withheld support, a debt burdened utility is then forced to appeal to the province for funds. The political

¹⁰⁷ Interview with KWSB Senior Official, Karachi, November 12th, 2013

economy of utility sustainment has seen power over the KWSB oscillate between the MQM dominated KMC and PPP dominated province of Sindh (OPP RTI, 2000). The structural disconnections between the utility and the province are not recognized by other state actors. KWSB representatives have complained 'Our directives continue to shift between the provincial PPP led government and the municipal MQM party thugs. It is difficult to take good ideas that put the utility's interests first and position them in a way that is politically acceptable to either of the two parties. PPP directives are usually stalled by the MQM and vice versa.'¹⁰⁸ The reporting relationship to the province is troubled and technical motivations for reform are largely led by non-state actors¹⁰⁹.

There is little accountability within and across the utility itself. Financial risks and management ineptitude abounds (JICA, 2008). There is no evidence of the routine publishing of official reports. The steady deterioration of performance is a result of discriminatory provision of water supply. Years of political and administrative mismanagement, incompetence and corruption in operations and oversight have resulted in KWSB producing negligible invisible resources to address gross deficiencies in basic services (Ercelawn and Nauman, 1996). When asked about regular reporting, KWSB representatives respond 'no-one reads the reports that we produce. The media, civil society and others all listen to the 'spin' that politicized messages present. We have had a good forum or two with some NGOs (URC forum) but they do not result in change, just knowledge sharing. We also know that poorly paid staff members are being paid off by members of the water mafia. We can do nothing, otherwise our supervisors and staff risk death.'¹¹⁰ Most of KWSB key performance initiatives or measurements are disclosed as part of donor driven capacity building projects. Bulk water theft proves a lack of coordination across state actors, between the army, police and civilian service delivery providers (Rahman, 2004). Donors such as the Japanese Institute for Cooperation and Aid (JICA) have also echoed the need to reduce political interference and operate the utility on a recovery basis (JICA, 2008).

¹⁰⁸ Interview with KWSB Senior Official, Karachi, November 12th, 2013

¹⁰⁹ Appallingly, the Sindh High Court has asked the KWSB for a list of constraints to improved management. This request has been made despite the open and well published allegations of interference by elected provincial officials and departments at the provincial level.

¹¹⁰ Interview with KWSB Senior Officials, Karachi, November 12th, 2013

5.3.3 Intergovernmental support and policy failures

Primary and secondary research reveals little intergovernmental support for lower tier state actors beyond a culture of 'policy formalism'. Lower tier actors such as the KWSB, are not autonomous and continue to depend upon upper tiers of the state for decision making and resources. Although a number of acts and laws regarding local government exist, they have not been accompanied by resources for program implementation and improved service delivery (JICA, 2008). For example, investment in the water sector is 0.16 percent of GDP as compared to between 0.2 percent and 0.4 percent of comparable international utilities (KWSB, 2014). In fact, upper tier state actors have been lobbied by non-state actors to draft the national water and national sanitation policies, which take into account the realities of the informal sector (Hasan, 2013). Donors such as the World Bank also lobby upper tier state actors (in particular the province's minister) for implementing institutional autonomy at the lower tiers and delegating sufficient funding models for utility operations (WSP, 2014). As a result of lobbying by donors and other lower tier state actors, an urban policy and development cell has been created within the Government of Sindh to build capacity at the lower tiers of the state (GoS, UPSC, 2014).

Research evidence shows that upper tier state actors often draft policies with little consideration for municipal capacity and infrastructure. In 2002, the GoP launched the country's national sanitation strategy at the first regional South Asia Conference on Sanitation (SACOSAN) in Dhaka. Although the strategy contains plans for Tehsil Municipal Association (TMA) development at the city and town level, there is no reference to larger cities, despite large sewage plan outlays (GoP, 2006). Commentators have argued that while the upper tiers of government seek to increase supply, they neglect the challenges of water losses, pilferage and contamination (Hasan, 2002). Even when a plan is funded (i.e. ADB funded Karachi Sewage Plan), conflict between all three levels of government results in project failure (Hasan, 2014). Furthermore, new plans do not incorporate new infrastructure into existing KMC built lines or CBO developed laneway box and sewage collection networks. Similarly, new plans advocate for increasing the capacity of treatment plants while neglecting the lack of coordination and convergence of the existing collection system (secondary sewer lines feeding the main trunks are regularly supplemented by storm water from the nallas). Glaring disconnections between proposed plans and existing infrastructure layouts has drawn harsh criticism from civil society actors, who claim that larger donor led projects will only incur more debt on the city.

Research also reveals a lack of capacity building for the KWSB from upper tiers of government. The lack of delegation of authority results in misalignments with the courts, electricity board, province, land board and revenue (JICA, 2008). Interviews with KWSB managers raised several challenges ‘we know what to do to turn around the KWSB, but we have no support from the police, politicians, other departments and our provincial/municipal masters. Our staff members continue to receive threats from the MQM all the time, should they try to follow procedures that are not to the liking of political parties.’¹¹¹ State and non-state efforts to resuscitate the utility are isolated. Progress on infrastructure mapping is stalled by resistance from ‘sector based institutions’ at upper tiers of the state, such as KDA influence on the KMC (WSP, 2014). Nevertheless, some upper tier commentators recommend that the KWSB be delinked from upper tier institutions such as the development authorities to ensure efficient operation and semi-autonomy¹¹². Critics counter that such ‘partial solutions’ will experience limited success, if top down grant distribution thinking continues (Shah, 2014). Structural changes are required to address the management challenges of skilled labour shortages, obsolete rules, asset and work mismanagement and poor financial management. For example, area based management would make service delivery easier if the city were divided into hydraulic zones with dedicated metering, community engagement and shared oversight (WSP, 2014). These challenges are faced in the housing sector where a myriad of institutions has made legal low income programs near impossible to start. According to one social entrepreneur ‘we spent years trying to establish tracts of land dedicated for the urban poor and informal settlements, but there were so many other institutions that were accustomed to stalling the process by waiting for bribes. Every time we approached these upper tier actors with the intent of doing the work legally, we were told it will never work. As a result, we have started to work only with the local government departments where they have land allocated for formalizing informal settlements.’¹¹³

Policy evidence suggests that the lack of intergovernmental support is the result of shifts in KWSB reporting to municipal and provincial stakeholders. The competition for influence over the KWSB is no

¹¹¹ Interview with KWSB Senior Official, Karachi, November 14th, 2013

¹¹² Interview with Non-Government Organization Advisor, Karachi, January 15th, 2014

¹¹³ Interview with Non-Government Organization and Social Entrepreneur, Islamabad, November 15th, 2013

doubt as a result of its revenue generating ability. Prior to 2012, the KMC's governance model had been altered by the military administration (with the approval of the MQM) to fit a more nationally molded district government model, renamed as the CDGK. By 2012, the CDGK had returned to its provincially designed model as the KMC. At this time, an agreement was reached between the KWSB and KMC for the latter to assume responsibility for maintain the drainage systems of the city. In principle, the KMC would develop the natural nalas and drainage canals as box trunk lines to serve as the main disposals for sewage and rain water across the mega city¹¹⁴. As of 2014, work on more than 70 percent of the city's box trunks and drainage canals across the city had been completed (OPP RTI, 2012). In 2012, the KWSB compiled and issued a list of 125 illegal hydrants operating in Karachi and requested that upper tier authorities dismantle them¹¹⁵. While this number is far below what OPP RTI says are in operation, it is a significant step towards exposing the key stakeholders in Karachi's water mafia as well as the challenges of deplorable interagency cooperation (URC, 2012).

Staff accounts from the KWSB point to the recommendations of a 2010 published JICA report which outlines institutional reform through the segregation of bulk water sale from retail sale (to be outsourced). According to KWSB experts, 'the study is without doubt, the most thorough analysis of KWSB's operating environment and constraints. There has been a KWSB review and response to the JICA report, which recommends the development of internal controls and oversight measures as part of broader institutional reforms. However, no steps have been taken as of yet¹¹⁶.' In 2012, the KWSB continued the publishing of its list of illegal hydrants in the city, listing the name, owner and district. The majority are in district west and number over 100. Under the directive of the IG Sindh and in cooperation with the police department, warnings have been given to the hydrant operators. Despite repeated threats of enforcement action, there has been little evidence of actual hydrant shut down (The News, 13/9/2012).

¹¹⁴ In strategic terms, one might argue that such a network could easily pave the way for provincially led development in areas where sufficient sewage and drainage has been mapped out.

¹¹⁵ According to the KWSB report, there are 93 illegal hydrants operated in west district, 12 in east, 10 in central and one in Malir. This number is disputed by the OPP RTI, whose detailed maps, flow analysis and financial revenue calculations point to over 300 illegal hydrants in operation across Karachi.

¹¹⁶ Interview with KWSB Senior Official, Karachi, November 16th, 2013

The intergovernmental challenges and policy failures that face the KWSB are indeed rooted in a lack of revenue and sustainability. Unfortunately, there is limited energy being dedicated to the search for alternative service delivery solutions (JICA, 2008). For example, the KESC is cooperating with non-state actors to establish decentralized alternative energy pilot projects to reduce the load from a centralized power system under stress (URC, 2012). Such efforts are scarce in water supply and sanitation. Alternative solutions gloss over reforms and visit privatization efforts and the unbundling of the KWSB into separate operational units for public or private operation. Little thought is being given to making the entity more functional and operational, in light of the external constraints highlighted by non-state actors (Bengali and Shah, 2003; Rahman, 2004).

5.3.4 Citizen engagement or pro-poor engagement

Primary and secondary research reveals differences of opinion between state and non-state actors in the level of services being provided to the informal sector. Lower tier state actors within the KWSB and other infrastructure oriented departments insist that informal settlements are provided with better service than upper income communities. In fact, key informants pointed to the fear of protests which has kept service levels to the informal sector above average. In contrast, civil society reports reveal a range of customer criticisms. A survey by the Network recently revealed key recommendations from concerned citizens regarding the poor state of existing schemes, inequity in water bill payments, poor water quality and the need for joint planning (The Network, 2005). A WSP funded citizen report card also revealed areas for improvement in governance, citizen engagement and service delivery. Only 6.5 percent of respondents indicated a level of satisfaction with services (WSP, 2010). Another World Bank survey also pointed to the need to establish dedicated programs for informal settlements and service delivery outreach in cooperation with long established non-state actors (Rizvi, 2009).

Evidence regarding the history and state of citizen engagement across income groups is both mixed and complex. For instance, some low income areas claim periodic service delivery and inflated bills whereas KWSB staff claim that they receive better service than upper income groups. All interview respondents agree that periodic services are common across the city and there is less enforcement on revenue collection in lower income areas. However, surveys reveal the overwhelming levels of service that planned areas receive as opposed to ten to thirty percent coverage in informal settlements (AERC Surveys, 1989). To resolve this, the 'Awami tank' program was used in recent years to pilot the distribution of water to low income communities through CBOs. In the absence of sufficient oversight,

the program (fed by the tanker industry) fell into political hands (Ahmed and Sohail, 2003). Over time, illegal water tankers have paralyzed supply in the city by parasitizing the utility's main water points. The KWSB is unable to prosecute the upper tier actors who operate these hydrants, due to cooption and the pay offs of KWSB staff. Enforcement regarding illegal hydrants is a moot point as the KWSB is empowered to collect regular payments from its larger clients. The result is that informal settlements and low income areas become the scapegoat for falling revenue collections of the utility as a whole¹¹⁷.

In recent years, KWSB management has engaged non-state actors regarding the utilities challenges and how to increase service delivery to lower income communities in order to build a stronger customer base. In response, non-state actors have analyzed the constraints and challenges to KWSB operations and placed service delivery to the informal settlements in perspective. The priority of issues requiring resolution have more to do with source water, distribution (formal and informal), illegal hydrants, power shortages, organizational difficulties and alternative solution development (Rahman, 2008). Non-state perspectives on service delivery seek to consolidate the interests of low income communities and the KWSB, which are already aligned, in order to build a grass roots support for the KWSB's capacity and future capability to deal with an expanding mega city population. I now turn to the activities of non-state actors that have informally, if not formally, extended KWSB's service delivery.

5.3.5 Donor/Civil society activity

Primary and secondary evidence reveals significant donor and civil society activity in the water and sanitation sector. Service delivery extension to informal settlements has been largely attributed to efforts of survey data, mapping, training and advocacy by technical experts within Karachi's development community. Although most of their efforts have linked community based solutions with utility infrastructure, relations with state actors has yet to be formalized. Despite this constraint, civil society actors such as the Urban Resource Centre (URC), OPP RTI, Pakistan Institute for Labor and Economic Research (PILER) among others are collaborating on water and sewage issues and have

¹¹⁷ Analysis of returns on investment in capital infrastructure and security for each hydrant, compared against the lost revenues of pilfered water show that minimal allocations in security for public services can lead to quick returns in improved service delivery to all citizens.

formed a water and sanitation network for Karachi (Wateraid, 2008). Their initial focus was on challenging the proposed privatization of water and sewerage services in Karachi. In parallel, they have analyzed the feasibility of foreign funded projects to expand utility capacity. In response to capital intensive approaches, this network drafted a low cost, phased alternative plan based on existing city finances. The KMC and KWSB have approved the plan as 'The Karachi Sewerage Plan S III (KSP S3)'. It will be implemented through the city government's finances with the KWSB acting as the lead implementing agency. The feasibility and governance component of this plan has led to the network being officially recognized by the KWSB (URC, 2007). As a result of this recognition, the URC and OPP RTI are collaborating to develop a water supply and management plan for the city, which incorporates the needs of poor communities, addresses institutional mismanagement and inequities in distribution (URC, 2009).

The OPP is one of the most celebrated civil society examples of 'self-help' community led development. By combining community capacity with relevant municipal authorities, the OPP RTI has facilitated project management to extend sewage collection and water service connections to informal settlements (Fernandes, K., 2002; Plus, 1998; Welle, 2008). It is important to note that the OPP RTI has accomplished this by engaging and cultivating the capacity of KWSB's mid-level engineers and administrators. Unlike their upper tier counterparts, these lower tier officers are not as 'upwardly mobile' or are they transferred like higher ranking officers across different administrative portfolios (Hasan, A. 2008; Pervaiz et al, 2008). Similarly, the OPP RTI has cultivated community capacities through education and technical support. A survey of 'lane managers', community activists whose efforts have been supported by OPP RTI and have galvanized individual households into approaching the city for services, speaks to the value of community owned development approaches (OPP RTI, 2008).

The OPP has also been an outspoken critic of the political economy of water supply in Karachi. Research led by the late Executive Director, Perween Rahman, established linkages between increases in water pilferage and non-revenue water losses that continue to erode KWSB's financial health. OPP RTI publications highlight the sophisticated linkages between upper tier state actors and the criminal underworld that actively steal from the public water supply and resell water illegally. Illegal water providers often provide water at prices 10 to 15 times greater than public tariffs provided by the KWSB (WB, 2012). Ironically, illegal bulk water tankers operate alongside private tankers while sell 'public water' through ranger managed hydrants. OPP RTI has long pointed out that the erosion of KWSB

revenues is reducing funds for the operation and maintenance of existing infrastructure, resulting in a dependency on federal funds. Although the situation for reform seems hopeless, OPP staff solutions are simple 'KWSB management needs to acknowledge and broadcast the poor financial state of the utility after which reforms and tactics can be developed. At present, they seem to be accepting the dismal state as normal.'¹¹⁸ Upper tier resources are signed off on by the very actors pilfering the public supply (Rahman, 2008). A concession based contract has been proposed as an option by the GoS in 1997; to which civil society has protested (GoS, 2008).

The key benefits of OPP RTI engagement of CBOs are social mobilization, capacity development and community design. Social mobilization involves problem solving and conflict resolution between neighbors (lack of agreement on progress and fund collection), with contractors (poor quality work), with city officials (to get operations and maintenance work orders completed) and within the community (to take ownership of operations and maintenance work when self-help was determined to be the solution)¹¹⁹ (OPP RTI, 2008). Capacity building has led to success through community supervision of line construction. CBOs soon found that donor led projects involved contractors using poor quality pipe as inspections were irregular or non-existent (OPP RTI, 2008). Contractor discipline has helped OPP RTI and KWSB work, where large lucrative contracts with high end contractors have been replaced by local masons and local SMEs (Zaidi, A., 2000). Criticisms regarding the quality of OPP RTI designs and managed work have emerged from municipal engineers and technocrats. Nevertheless, the same criticism has been applied to the quality of KWSB and CDGK managed work, by CBO lane managers and NGO reps (OPP RTI, 2008). OPP RTI leadership continues to press for more recognition of the government-community partnership that feeds local designs to meet the needs of laneways and communities (Rahman, P., 2004). Audits of OPP RTI work have been met with positive reviews by its technically oriented donor – WaterAid, and efforts towards advocacy are encouraged as OPP is invited to provide more technical guidance on larger projects (WaterAid, 2001).

¹¹⁸ Interview with Non-Government Organization Executive Director, Karachi, November 17th, 2012

¹¹⁹ This is not to say that officials or any one party was to blame, but when external conflicts arise (ethnic tensions, insecurity) or internal discord (state/non-state roles and responsibilities, neighbours quarrelling, contractor management, quality control, etc.); having an impartial and well equipped entity on the ground helped to keep the process moving.

Although OPP RTI surveys reveal the approval of land tenure for almost all of Karachi's 'katchi abadis', the struggle for tenure in the peri urban fringe is intensifying across intergovernmental lines. Karachi's original city limits have been approved for land tenure, making them 'regularized' or 'formalized low income areas'. As such, OPP RTI has shifted its focus to the perimeter of '*Goths*' (settlements) situated in a ring around the Karachi city limits. The ring is 4 to 5 km wide and extends as far as 7 km at some points. In total, the ring of 2,173 *goths* more than doubles the overall size of the city (OPP RTI, 2011). OPP RTI has found a lack of accountability by inter-governmental authorities. A technical training resource centre (TTRC) has been set up in Orangi and youth architects are working beyond Orangi to map and plan out the *Goths* of Karachi. The TTRC also provides guidance and support for the EM sewage treatment units (OPP RTI, 2012). Other centres developed by OPP RTI and now manned by youths are assisting with technical support to other *Goths* around Karachi's periphery. This ring of villages and low income settlements is caught in a territorial struggle between the province (PPP) and the municipality (MQM) (Hasan, 2012). In order to obtain land tenure, residents are required to provide documentation to the Sindh Katchi Abadi Authority (urban settlements) or the Sindh Revenue Department (outer rural settlements) showing that the village existed before 1985¹²⁰. The problem outlined by key informants from the KWSB, is obtaining recognition for the settlements' existence within the jurisdictions of the provincial or the municipal government. As MQM and PPP influence grows the municipality's jurisdiction, the span of the KWSB's responsibility only grows.

Recognition of OPP RTI's maps has served to advance discussion around formal sewage and water service plans for the expanding city. Initially, KWSB S3 was criticized for not taking into account linkages with NGOs who have done low cost sanitation in the past (ADB, 2002). However, by 2007, the Sindh Government approved Rs. 900 million for the development of 9 more drains, designed by OPP RTI and serving many low income settlements spread over 8 towns. Rs. 2.6 billion was allocated in the budget for the KWSB S3 plan (OPP RTI, 2012). In 2007, the KWSB took some steps to engage NGOs and announced a new policy for providing water connections to poor communities and katchi abadis at a

¹²⁰ Residents from at least 40 households are required to provide birth and death certificates, identification cards with the address of the old goth, old mail envelopes, or a document from a court proceeding.

fifty percent reduced rate. In 2009, the KMC began the construction of Phase 1 of Khairabad drainage project, encompassing 17 *goths* (40,000 houses). In addition to other drainage projects, OPP RTI designs have been approved by the KMC and Rs. 189 million has sanctioned for Phase 1 and 2 of the KWSB S3 plan. OPP RTI develops the plans, obtains ministry approval, city approval, monitors project management (follow up with the CM for the Provincial government and KMC engineers), provides work plans to KMC engineers, and supervises construction, while mobilizing the community to monitor work. This plan of engagement has been replicated in other state led support programs. The technical support of Wateraid for OPP RTI's engagement with the KWSB is unparalleled (OPP RTI, 2012). Many multilateral donors have collaborated on the WSP effort to establish pilot projects based on the OPP model (WSP, 2011). Other organizations such as DFID have also noted the success of the OPP RTI model and the gaps that it is filling in providing 'sharing oriented models' that encourage community ownership (DFID WELL, 2006). While these efforts benefit from increased private sector involvement and tools to engage the communities and establish stand-alone utilities, the critique of short circuiting slow and steady community mobilization may see more negatives play out (WSP, 2012; OPP, 2009).

In contrast to the success of the OPP RTI, large donor funded projects persist and divert focused attention on community led efforts. Upper tier solutions to improving service delivery still reside largely in capital intensive, high investment projects that assume a critical capacity and interest by lower tier state and community representatives. They overlook the needs for community strengthening and organization, which is where OPP RTI spends most of its time and energy. Donors continue to fund state plans for large water and sanitation development projects, despite the lessons of past projects. In several cases, years were spent in development which led to complacency by state officials and the contracting out of solutions rather than developing internal management frameworks (Hasan, A., 1998). One of the strengths of the OPP RTI model is that it recognizes that its role cannot replace that of the state (Rahman, 2006; Zaidi, A., 2000). As with other commentators, the OPP RTI advocates for the KWSB to be given the power to perform as an effective level of government (Zaidi, A., 2000). The solution is the connection of main lines and trunks to community developed distribution and collection networks. Modest systems are the solution, which are not a drain on capital resources (Hasan, 2014). The approval of new development loans are linked to donor pressure. The existing infrastructure which is in need of repair and should be charged to O&M funds, is neglected, a result of the donor led culture at the KWSB.

5.4 Case Studies

I now turn to two case studies which illustrate the dynamics between upper and lower tiers of the state in enabling or disabling service delivery to the informal settlements of Karachi.

5.4.1 The Case of *Dost Muhammed Jungar Goth*: A Successful Outcome

Since the 1990s, the OPP has been assisting Karachi's peri urban informal settlements with applications for land tenure and basic services. In many cases, the efforts to lobby service providers have been long and drawn out. In others, where the community has been mobilized and accompanied by the economic interests of commercial groups, service access has been expedited. The latter situation has been experienced in *Dost Muhammed Jungar Goth* which serves as the city's largest vegetable market for its main economic activity. Since the engagement with OPP RTI, and the cross subsidization of services between commercial and residential actors, access to water and sewage services has improved almost immediately. In fact, the seamless manner in which the community was able to organize and engage the KWSB, makes it one of OPP RTI's most dramatic turnaround case studies.

5.4.1.1 Background

Dost Muhammed Jungar Goth is located along Karachi's northern city limits, next to one of the mega cities key arteries¹²¹. The community is composed of a residential area located behind a thriving marketplace. As of 2008, the settlement was composed of 107 lanes and 1,020 houses, accounting for over 6,000 people. The goth is home to the largest wholesale market in the country which spread over 100 acres with three divisions including fruits, vegetables, onions and potato. The market meets the fruit and vegetable demands of Karachi in addition to driving a robust export market. Over 500 trucks move through the market on a daily basis.

¹²¹ 'Superhighway' runs from Karachi north to Punjab and connects the major agricultural markets of both provinces. The vegetable market used to be located far from the highway, but as the market grew – it moved closer to transportation infrastructure in an effort to relieve congestion. Some refer to the current position of the Goth as 'New Sabzi Mandi'.

In recent years, criminal activity has been on the rise, causing Karachi's *Dost Muhammed Jungar Goth* to become a 'mini Bajaur'¹²², with a deteriorating state of law and order. The goth has suffered from social and political interference, due in part to the growth of a 'shadow economy' of illegal service providers. If continued insecurity closes the wholesale vegetable and fruit market, traders warn it would cease the supply of fruits and vegetables to over 18 million residents of Karachi and have negative effects on other markets, distributors and growers. Sindh's agricultural minister has since requested the assistance of the Pakistani Military's Rangers and the launching of a cleanup operation in the area behind the super highway. Traders have pointed out however, that the Rangers' presence has not ceased extortion practices (The Express Tribune, 25/4/2014).

The illegal encroachment of public spaces, shops, unauthorized occupation and illegal possession of open spaces in the relocated goth by 'outsiders,' posing as criminals and outlaws (undermining revenue collection by the market committee), has been a cause for complaints by the markets traders. The vocal group of commercial actors allege that the presence of outsiders is the result of the negligence of the goth's governing 'market committee'. Residential and commercial stakeholders allege that corruption within the market committee has led to the illegal encroachments, fake allotments of land and continues to violate the mandi's formal plans.

While seven years had passed since the shifting of the *Dost Muhammed Jungar Goth* from the University Road to its new location, the absence of services continues. In fact, residents continue to wait for water connections, electricity meters, natural gas and paved roads; despite donor funds of Rs. 304 million. The law and order situation in the market's vicinities has escalated the murder of a trader by extortionists. Traders took action by striking and demanding that the government take immediate steps to stop extortion. Army Ranger forces have been asked to check encroachment and ensure that the sanitation environment of the Mandi is at least maintained. The committee members criticized the administration

¹²² 'Bajaur' is a town which was suspected to be a base for militants with links to Al Qaeda and the Taliban. Over a number of months, a rise in criminal activity led to a deteriorating social conditions and prompted military intervention. Successive incursions, raids, military operations and relief efforts have traumatized the local population, resulting in continued unrest and migration to surrounding areas.

of the market and its administrator, in particular, for non-cooperation with the committee in streamlining the working of the market and indulging in mal-practices.

There has also been tension between the Fresh Fruit Merchants, Growers Association as well as the Market Committee. An advisory committee was set up to look after the day-to-day affairs of the market, improve fee collection by eliminating pilferage of funds and fees, removal of encroachments, improve sanitation, regulate power supply and ensure proper water supply, but so far nothing had been done due to cooperation by the current administrator. Despite a number of meetings with township authorities and millions of rupees spent in project proposals and contract awards, there has been no progress made by the market committee in obtaining services.

5.4.1.2 Intervention

The woes of *Dost Muhammed Jungar Goth's* commercial actors are multiplied due to the shortage of power supply and tap water. The association points to the growth of the illegal “Kunda system”, while those who were provided legal power connection were suffering. The potable water supply condition in the Mandi had also grown miserable. The water meant for consumers at the Mandi had been diverted to the nearby settlements, and whatever water was made available to the Mandi was supplied in odd hours. It was suggested that instead of changing the water pipeline in the market at a cost of Rs 4.5 million, the project should be handed over to the Karachi Water Board for replacing the damaged pipelines.

The KWSB and OPP RTI were then engaged by the community to establish water supply connections as well as low cost sanitation solutions to the market community's lane ways. In terms of internal development, it would be managed by the CBO. In both *Dost Muhammed Jungar* and *Haider Goths* (comprising of 1,855 houses and 196 lanes), with OPP RTI technical guidance, the community mobilized more than Rs. 6.25 million for external development by the government for water connections. Work onsite was soon completed with 13,420 feet of main and secondary sewers have been laid. OPP RTI provided on-site technical guidance. Internal development for linkages to a total of 20 lane sewers (16 on self-help and 4 by government) and 2 secondary sewer lines (5,228 feet) had also been laid. 288 houses invested Rs. 1.63 million on latrines and sewers. As additional lanes gather the necessary funds, internal development is planned to continue.

As of 2011, sewage collection networks along 4 lanes are serving 19 houses where Rs 14,383 has been collected. KWSB staff responded by connecting to 4 lanes and 19 houses for Rs. 65,265. Water lines serving 7 homes and 664 houses for Rs. 981,248 have been collected. The government has connected to 3 lanes and 58 houses for a total of Rs. 91,350. In terms of External Development, Investment by the government and the people is tabulated to be 2 secondary water lines for 2,250 feet at Rs. 141,750 and 1 water main of 1,800 feet for Rs 169,200. The proposed sewage line extends from the drainage main along the Superhighway along the Goth and towards the back of the vegetable market where the four blocks of homes are situated (OPP RTI, 2010).

This case study demonstrates the ability of the lower tier non-state actor (CBO) to build consensus and mobilize resources to obtain service delivery access. More specifically, the consensus of social and economic interests across the community was instrumental in pushing state actors to expedite service delivery access. Although the OPP claims to have had minimal involvement in the effort (beyond technical guidance) this case illustrates the benefit of non-state actor facilitated engagement of lower tier state actors for common infrastructure development needs. In the absence of sufficient political representation and intergovernmental support, civil society and donor activity has been able to sustain the service delivery agenda, by pushing for accountability of lower tier state actors.

5.4.1.3 Next Steps

This area has witnessed the rapid and seamless extension of the water and sewerage line to the Goth. A contributing factor may very well be the need for the commercial interests within the market to ensure a steady supply of water and sewage services to ensure timely processing of market transactions. While violence has continued, the presence of criminal activity linked specifically to the pilferage and illegal supply of water has dropped to negligible levels. The village and community have benefitted from two subsidies. The merchants living there provide a market for services. The merchants also have the knowledge to transfer the connections and access to the residences. The cost of the connections could easily have been borne by the market, which in turn could have subsidized the goth's access to services.

In fact, this area represents the first time that a CBO has been able to engage the state with minimal intervention by the OPP RTI, much to the latter's delight. Commentators question whether this really serving a low income area? Or is it more subsidization of services between household and commercial interests. It does raise the value of subsidies and the ongoing interaction with the state that has paved the way for ease of engagement. The coordinating role of the OPP RTI with the KWSB has been shown to

be of benefit not only to residential interests, but also commercial groups. I would argue, that the case demonstrates the efficient access to services facilitated by the OPP and CBO in comparison to other profit oriented groups.

5.4.2 The Case of *Ghazi Goth*: An Unsuccessful Outcome

Since the 1960s, the OPP has been assisting low income settlements (*katchi abadis*) with survey, mapping, community mobilization and advocacy for ‘component sharing’ based water and sanitation services. By the 1990s, all of the ‘*katchi abadis*’ within Karachi’s ‘city limits’ had been awarded tenure, through documentation and service connections with KWSB. Since then, OPP RTI has been assisting villages and towns or ‘*goths*’ around the ever expanding urban fringe to obtain tenure. *Ghazi Goth* is situated in the immediate periphery of Karachi’s peri urban fringe. It is one of many small settlements which is struggling for documentation, recognition and service delivery from the municipal authorities. The political dynamics that constrain the efforts of the CBO and OPP RTI to obtain services makes it an example of disabling variables to development.

5.4.2.1 Background

Ghazi Goth originated in 1980 as a multi ethnic settlement in the north western periphery of Karachi, along the border of Orangi (the home of Akhtar Hameed Khan’s seminal non-government organization, the Orangi Pilot Project) and Deh Halkani. The *goth* is situated between a poorer low income housing settlement (along a major traffic corridor) and a largely open area where future development is being planned by the province. The *goth*’s struggles with obtaining land tenure and service delivery are shared by other *goths* along the peri urban fringe, caught between provincial and municipal jurisdictional authorities.

Ghazi Goth’s dynamic CBO illustrates the benefits of community dialogue and collective engagement of state actors to obtain services¹²³. There are a total of 1,652 houses that are home to over 7,000 residents. Although *Ghazi Goth* is less dense than metropolitan Karachi, its households are larger.

¹²³ In many other communities, the lack of services quickly degenerates into ethnic and sectarian clashes with limited collective thought as to collective engagement of the state.

According to community leaders, the Goth boasts one of the most peaceful and yet mixed groups of ethnic and religious groups who live in harmony. Ethnic Balochis, Kashmiris, Punjabis, Mohajirs and others experience peaceful relations, relative to other informal settlements. In terms of infrastructure, there are noticeable gaps. The community is made up of a total of 140 lanes connected by 1 main road, 4 secondary roads and 137 primary roads. There are 32 water connections that are required per lane. There are no government facilities except for 5 police stations. There is 1 private school along with 4 health clinics and 6 Masjids (OPP RTI, 2011). CBO leaders point to the increase in unity that has resulted from the mobilization of a relatively diverse community and establishing shared needs for basic infrastructure and services.

The health and sanitation challenges that face *Ghazi Goth* are common to several low income communities across Karachi. There is no official access to piped water to the community's households. The survey drawings and layout of the Goth reveal the use of soak pits by all laneways and households. Each pair of homes shares a common soak pit which results in the prevalence of waterborne and gastrointestinal diseases. During rain events, these pits overflow, which spreads waste into the streets. The persistence of soak pits has affected the health and wellbeing of residents, particularly the young and old, according to CBO representatives. Household tensions result from the discharging of refuse between homes into pedestrian walkways and common areas where children play. The extension of the lines to all residences of the Goth will also make expansion to additional homes coverage simple (OPP RTI, 2011).

5.4.2.2 Intervention

In 2009, OPP RTI engaged the residents of the *goth* and assisted in the establishment of a CBO through which to engage the lower tier KWSB and KMC for water, sewage and drainage service. Several maps and surveys were initiated by OPP RTI staff in collaboration with the community. After much lobbying and engagement, the CBO application for a connection was accepted by the KWSB. A distribution line for water as well as a drainage main for sewage would run from the nearby water main. The main collection line for sewage would discharge waste into a nearby open drainage canal.

In November of 2011, construction of the Goth's sanitary and water mains was underway. The community had completed survey and mapping efforts with the help of OPP RTI. The CBO had also mobilized laneways to amass sufficient funds for the purchase of internal component materials. The CBO had by this time, engaged lower tier municipal actors to install the sewer mains. The KWSB and its

contractors began work with OPP RTI staff as well as the community activists supervised the onsite work. 4,820 feet of main sewers (12 to 15 inch diameter) were laid.

As construction continued, representatives of elected officials and party activists took notice. It should be noted that the project was being undertaken with the 'perceived' support of a PPP led provincial administration, the party with the most support in rural Sindh and the areas outside of Karachi. This raised the ire of MQM activists in the area, who had benefitted from a pattern of 'votes for services'. The MQM has always dominated management structures across the KMC and KWSB. Any provincially funded projects, would infringe on the degree of political clout held by them across the goth. MQM activists first offered cash to Goth residents to withdraw their financial support for the project. When the goth's residents refused to concede, MQM activists approached the contractor with threats on the lives of their workers. The contractor felt threatened, and stopped work. Community activists are now lobbying the government to restart work. In the meantime, sewer mains have been laid at a nearby abadi, the Shah Khalid colony. This community is significantly smaller, and is comprised of only 17 lanes and 234 houses. During the last period, at the request of the community, the mapping, planning, estimating for three secondary and 12 lane sewers was provided. The effort is ongoing for laying the secondary sewers (OPP RTI, 2012).

The infrastructure and layout of the Goth makes the installation and laying of pipe simple. As of June, 2012, *Ghazi Goth's* community of 140 lanes and 1,652 houses has requested the installation of sewer main disposal lines (9,246 feet). Accordingly, the required infrastructure was designed. For instance, homes are modest and there is substantial room to attach service connections without encroaching on neighboring properties. Similarly, the roads and pathways are large enough and do not suffer from illegal encroachments common to low income areas near Karachi's core. The lane ways are wide and the divisions of different sized homes make the laying of pipe and connections to homes straight and continuous. The 'L' shape layout of the Goth leaves only a 90 degree elbow for the lines to connect. This will also make the ease of manhole cover development easier, as long as they are of good quality (OPP RTI, 2012). Lanes are straight and installation from a technical perspective is not impeded by anything.

In terms of the application, the *Ghazi Goth Welfare Society* has submitted an application for OPP RTI to intervene and push the state to resume construction and line development activities (*Ghazi Goth Welfare Society*, 2011). The reason for the delay is the lack of clear roles and responsibilities between the province and the municipality in terms of jurisdiction. The MQM, in control of Karachi, is struggling

for recognition and political assertion in the fringe, which falls more into rural Sindh, the long held political territory of the PPP. Lower tier municipal functionaries have visited the settlement on many occasions and in principle, had approved of the connections. However, as the KWSB is being fought over by the KMC (MQM) and the MoS (PPP), development is being halted and started as a result of political interference. According to community activists, 'Political actors and party activists have been reported to have gone door to door to all of the informal settlements' inhabitants, threatening physical harm and the lives of their families, should legal water connections through the CBO be laid.'¹²⁴ The CBO efforts have been robust and letters of approval from the KWSB for the laying of water and sanitation lines exist. Due to the interference of MQM and PPP actors in urban and provincial land development efforts, the laying of water lines has yet to be completed (OPP RTI, 2013).

This case study demonstrates the ability of lower tier state and non-state actors to develop a sustainable plan for service delivery infrastructure to an informal settlement. A strong emphasis on state and non-state cooperation through networking and relationship building has been a hallmark of the OPP RTI. The component sharing and incremental growth models pioneered by the OPP RTI were established as a result of shared responsibilities between communities and lower tier state actors. It also illustrates the adverse effects of upper tier and political party interests which extract rents from informal settlements in an environment of policy failure. The negative effects of intergovernmental tensions at the political and administrative layers of government cannot be ignored. It is likely that similar struggles for service delivery along Karachi's expanding urban fringe will continue in the years ahead.

5.4.2.3 Next Steps

There is development taking place to 200 meters to the north east, where a markaz (series of low rise shops) that will likely draw more utility requirements. Such peripheral development may incur more active KWSB and KESCO involvement in the area. It may also result in some resolution as to the jurisdictional issues that hinder *Ghazi Goth's* access to services. On the other hand, the political

¹²⁴ Interview with Community Based Organization, Senior Representative, February 15th, 2013

economy and pacification of interests may also be complicated as stakeholders are paid off as more money will be coming into the community.

5.5 Karachi's comparator variables and case studies

Primary and secondary evidence from Karachi reveals a history of marginalized municipal development. Politicized upper tiers of provincial and municipal governments, bearing the impressions of colonial rule and elitism has persistently neglected the needs of lower tier service delivery actors. The absence of political representation, intergovernmental support and insufficient pro poor initiatives points to continued neglect by the state's ruling elite and elected officials. However, in country research has revealed the prominent role of one comparator variables in extending service delivery to informal settlements. Civil society and donor activity has continued to fight the inertia and barriers presented by upper tier actors and elite interests, by facilitating the engagement of informal settlements and representative CBOs with lower tier state actors such as KWSB. The persistent lobbying, knowledge sharing and relationship building with KWSB and KMC officers by community based actors (OPP RTI and the CBOs) has led to the extension of water supply to and establishment of sanitation services. Although these efforts have been successful, there has been a limited response from utility service providers, namely the KWSB. The operations of the KWSB are mired in party based politics and patronage conflicts that pit municipal staff between provincial bureaucrats and municipal officials. Although members of the senior management team understand the need to break the vicious cycles of patronage, pilferage and debt; there are fears of retribution by organized crime, colluding with party leader at both levels of government. These fears have been realized in the targeted killings of utility operators and the assassination of Perween Rahman, the Director of the OPP RTI, who had long amassed research implicating the water tanker mafia in the institutional erosion of the KWSB. The success of service delivery to informal settlements hinges on NGO facilitated mobilization of CBO actors.

The influence of the comparator variables is illustrated in the case studies. Outcomes from *Ghazi Goth* and *Dost Muhammed Jungar Goth* reveal the crucial role of technical assistance and lobbying by non-state actors (OPP RTI) in engaging socially and economically mobilized CBOs. In *Ghazi Goth*, intergovernmental tensions rooted in party conflicts have stalled efforts at extending service delivery. Calls to remove barriers to service extension, by engaging elected officials and obtaining support from upper tier state actors have been ignored. Instead, CBOs and informal settlement residents have been threatened by party officials should they continue to make efforts through the NGO for service delivery

from the KWSB. Nevertheless, slow and steady information sharing by the NGO mobilized CBO with KMC and KWSB officials continues to push for progress and reinvigorate service delivery line construction and extension. In *Dost Muhammed Jungar Goth*, an economically mobilized group of informal settlement residents and traders approached the NGO for technical support in engaging the KMC and KWSB. Once equipped with the necessary technical assistance, maps and construction guidance; the CBO became self-sufficient. With minimal levels of lobbying and support the CBO was able to establish water supply and sanitation services from the municipality.

Findings from Karachi reveal the relationship between service delivery extensions and mobilized civil society actors, which pull an otherwise disabled and institutionally weak lower tier utility into formal arrangements for services to informal settlements.

6 Research Findings – Mumbai

The final of my three research chapters details findings from India's largest mega city, Mumbai. I begin the chapter with an overview of India's national policy context and the challenges facing urban development. I then summarize the events that have influenced urban policies from the times of Mughal reign to colonial and post-colonial rule. I then outline the condition of key municipal institutions in Mumbai, in light of growing responsibilities and a swelling urban population. Research findings from the water and sanitation service delivery context are then grouped by comparator variable. The influence of these variables on service delivery are then illustrated through case studies that profile the role of state and non-state actors in two of Mumbai's informal settlements. Let us now turn to the salient points of the national context within which Mumbai has grown.

6.1 Country and Municipal Overview

India's independence from colonial rule was accompanied by a rapid rate of urbanization which has outpaced state policy and program capacity. The shift from rural self-sufficiency to agricultural mechanization has displaced many wage workers, swelling the ranks of informal sector labourers in nearby cities (Bhattacharya, 1988). Rapid urbanization has led to the highest per capita densities in the world, outpacing India's urban service delivery capacities. The growing number of informal settlements and slums has increased the demand for scarce services overwhelmed existing urban infrastructure and service delivery machinery (Mathur, O.P, 1994; Bhagat, 2011).

Policy commentators have long pressed for substantial investments in municipal public service capacity and infrastructure (ICRIER, 2011). However, India's state governments retain a disproportionate amount of power at the national and state (upper tiers) levels, restricting flows to municipal (lower tier) departments. This has left little policy development (leave alone implementation) capability at the municipal levels of government (MUH HDC, 2011). National and regional planning bodies have also been accused of not building implementation budgets in to policies (Nath, 1989). This is a problem as these large cities are forecasted to grow in population size and density in the years ahead. The largest of India's mega cities, Mumbai has seen its population grow from 7 million in 1975 to 19 million by 2007. Forecasts estimate that its population will reach 26.4 million by 2025 (Metropolis, 2009). Service delivery scarcity and inaccessibility affects the human development potential of the informal sector. While the informal sector has long absorbed labor capacity from markets, the implications of top down

policy making for Mumbai will be a lack of service delivery capacity for the informal sector (Mehta, 1985).

The inability to engage the informal sector has resulted in the gradual evolution of state policies that engage non-state actors in the extension of service delivery. In the 1980s the government's response to growing disenchantment within the lower classes was market liberalization and engagement of non-state actors. The efforts of political, caste and religious driven assertions (which had previously diffused tensions) had lost any effect on the public (Pinto, M., 2006). Liberalization provided a convenient mechanism by which to off load many of the state responsibilities to the civil society sector. However, service delivery polarization has resulted from the poor collection of revenue where the state has maintains service delivery (Keefer and Khemani, 2004).

Non-state actors grew in number following the 1980s and found recognition within state policy and even market led thinking. In the ninth plan of 1997 to 2002, urban NGOs were recognized in policy documents as key stakeholders in service delivery¹²⁵. Unfortunately, the problems of governance replicated and accusations of corruption and self-serving agendas were made against non-state actors. Nevertheless, people centred development made inroads into state government policies as a result of national policy changes (Pinto, M., 2006). Future plans continued to push, at least in policy documents, service delivery to informal settlements. In the tenth plan (2000), standards for local government appeared that specified service delivery for the urban poor. The eleventh plan went further by expanding various city funds, leveraging the JNNURM and elaborating on the development scheme for small and medium sized towns. A number of governance, financial and management goals are outlined by the JNNURM, which has allowed policy elites to exert more pressure on state governments to address specific urban infrastructure and service needs (Gopakumar, 2012). However, the effect on urban poverty alleviation has yet to be seen. In the meantime, privatization based reforms continue to be pushed, which would funnel public savings to the private operation of service delivery machinery

¹²⁵ The report of the national commission on urbanization (1988) and the attempt to grant constitutional status to urban local bodies through the 65th constitutional amendment bill, 1989.

(MQI, 2006). Let us now turn to a brief history of Mumbai and the events over ancient and colonial periods which have led to the current policy context.

6.2 Historical Overview

Early records reveal that the coastal town of Mumbai started as a Portuguese trading post. Originally a group of seven separate islands, the settlement underwent land reclamation and eventually formed the island city. In the earlier times, the town of Mumbai fell under Mughal rule. During this period, the Mughal model of administration was established founded on a highly centralized concentration of revenue collection, magisterial functions and military fortification. This pattern of rule underwent further change, with the colonization of the subcontinent and two centuries of British rule. The commercially driven interests of the East India Company revived the centralized model with improved coordination between state actors and market players. As domestic products were routed through the city to the empire, Mumbai became the nucleus of British power.

The 1930s saw Mumbai's industrial activity increase with agricultural and textiles based trade. Colonial urban planning saw a few principles employed which left their mark on the city's administrative context. Colonial planning ensured the division of the natives from the ruling class in a way that did not disrupt the locations of power. Housing settlements were planned in such a way that ensured that European residents were well provided for while the remainder of the native populations was left in squalor. Sanitation, roads and other civic services were installed in areas where British rulers and the wealthier natives resided. This contrast in settlement patterns was evident as late as 1868, where records show that the poorer Indian areas were marked by dirt roads, ridden with open sewage (Shah, 1997). Inequality was perpetuated by the lack of tax collection and redistribution of wealth that could have funded municipal services.

When political decentralization and de concentration of power to local governments did take place, it was fraught with mismanagement and ill intent, leaving no real impacts on development or basic services to the urban poor (Chaplin, S., 2011). Although colonial rule has been credited with the development of a certain threshold of critical infrastructure, planners did not anticipate the challenges that would emerge from rural to urban migration and a growing informal sector. This lack of concern and denial of planning realities was mirrored by a lack of services to informal settlements, where a substantial proportion of the informal sector resides. This neglect continued until the early 1900s. As the

city core became horribly congested, modest improvements in basic services were made. All new areas of industrial development and residential settlements were incorporated into plans for a 'Greater Bombay'. During the war years, the expansion of industry continued to drive urban development. However, despite the 1938 Industrial Housing Commission and 1940 Barlow Report which advocated for equitable development little was done to reverse the polarization of the city at the expense of basic services and habitation.

The paternalistic image of the state's authority over society was entrenched during colonial rule (Maheshwari, 1999). As the smaller colonial Mumbai fell under the government of a wealthier, upper class British elite, the bazaars and small town community arrangements of old Mumbai were levelled to make way for the growing cities commercial and industrial interests. No major historical lineage was retained with Mumbai's political past, but its innovating entrepreneurs and export led industry drove it forward. The combination of declining town development in Maharashtra and the continued industrialization of Mumbai led to surging levels of growth. The changing structure of military cantonments and establishment of hill towns and transportation corridors also shaped the Maharashtran urban landscape, driving migration towards Mumbai. The concentration of development in colonial port cities was of little policy concern to policy makers. Peripheral settlements have multiplied, leading to poor and imbalanced planning (Phadke, V.S., 1990). As the port city grew in economic and trade importance, polarization between the well serviced military cantonments and the ad hoc informal settlements continued (Chaplin, S., 2011). The polarization that was now being reflected by the modern aspirations of Mumbai's elite, were to be transferred to Indian administrations following independence.

6.2.1 Post-Colonial Institutional Setting

In 1947, the British administrative system was inherited by the Indian independence movement. India's steel framework of institutional structures kept the bureaucracy rooted in colonial administrative practices long after native Indians had taken office (Gopakumar, G., 2012; Maheshwari, 1999). Unfortunately, none of the incoming native Indian officers were professionally trained in policy or program administration (Kalia, 2006). Port city officials had more power and control than any of Maharashtra's inland jurisdictions. These shifts in power caused many of Maharashtra's state officials to reconsider their level of control over the prominent municipality (Kosambi, M., 1986). In the 1960s, industrialization continued as the result of textile mills expansion and a booming cotton export industry.

Centralized power structures also expanded concurrently in Mumbai well into the post-independence period¹²⁶.

Planning in the 1970s retained top down approaches from the post-independence period with centrist policies dictating the zoning of large cities. For instance, Mumbai's policies were designed to encourage the exile of industries to the suburbs as planners believed that mega transportation projects would save the troubled core. Subsequent plans and acts introduced regulations on zoning, but by law restrictions were rarely followed and enquiries became the norm rather. As a result, plans reflected previous aspirations and were reduced to challenging the results of execution (Harris, N., 1978). These plans took twice as long to approve and sanction and were based on outdated and under estimated housing needs. Planners essentially became isolated and distanced from the deadening inertia of local governments which had no clue on how to implement the lofty targets set by their upper tier counterparts¹²⁷. The policy development and implementation gap along with privatized service delivery machinery continues to mire effective municipal governance in large cities like Mumbai. Plans became politicized tools rather than means to ends (Spoedek, 1983). In the meantime, industrial resistance to relocation has reversed policy pressure on the state government, which was then directed to local authorities to silence them (Harris, N., 1978).

From the 1980s onward, Mumbai's transformation was a by-product of segmentation and dualism. The manufacturing and development sectors were free to develop as they saw fit, in an effort to brand Mumbai as a global city. State efforts to sustain this vision superseded any agenda to address inequalities through policy reforms and formulate a comprehensive urban plan (Mahadevia, D., 1998). Industrial development continued at varying paces, as state planning struggled to meet new demands. India experienced periods of strong economic growth during the Rajiv Gandhi period and the abandonment of social policies held to under the Nehru and Indhira Gandhi administrations. Inequitable

¹²⁶ Historically, state actors were not provided with sufficient capacity building or training when state based models were accepted. In the decades that followed, South Asians filled the multilateral institutions of Europe and brought economically led development thinking back to their home countries.

¹²⁷ Setting high targets might motivate local authorities to find ways to obtain the necessary funds, but the often the effect was the reverse – that the problems are too overwhelming to solve in the first place.

development and other social costs of the breakdown of the once strongly centralized Mughal model of administration were now being felt (Maheshwari, 1999). Different wards and zones of Mumbai were now witnessing planning and development beyond the narrow visions of upper tier departments. Market led growth and the liberated hand of local development networks were soon to witness the rise of the media and services sector.

The 1990s ushered in the era of trade liberalization and a polarized Mumbai witnessed the establishment of a new industrial and service oriented elite. The city's commercial film industry experienced a renaissance and related industries drew migrants from rural areas. The new media savvy and services oriented middle class was not interested in political or social reform for the benefit of lower income segments of society (Ram-Masad, 2007). The 1993 conceived mega city project failed due to limited funding and political support from the upper tiers of the state (Chakraborty, 1996). The city's new urban elite revived the 'look towards Shanghai' logic that was conceived by Mumbai's private sector developers in decades prior. In the meantime, poverty grew across the informal sector. Some of the larger slums such as *Dharavi*, began to accumulate population sizes larger than most of India's small towns. The impact of neoliberal market led policies were continuing to be felt as densification in cities increased and regional inequities widened (Shan, 1999).

By the 2000s, six million of Mumbai's twelve million inhabitants were residing in slums. Another one and a half million were absorbed by the city streets, living as pavement dwellers. The human development indicators across this group of slum and pavement dwellers have continued to drop, adding to the collective call for help from state and society (Khan et al, 2003). Although an aspiring middle class had chosen to neglect the growing segments of slum and pavement dwellers, attention has emerged from another sector. A thriving civil society had experienced tremendous growth, extending services and social support to the fifty four percent of Mumbai's marginalized. The non-state sector has developed a number of locally designed models in isolation as well as cooperation with lower tier state actors. Civil society analysts point to the 'large number of action groups who have been trying to educate, raise awareness and mobilize otherwise fragmented marginalized groups of the oppressed poor' as 'the most important development in India since the 1960s' (Dhanagar, D.N., 1994). Unfortunately, most non-state efforts have taken place independently from lower tier state actors.

Commentators have pointed to the constraints that centralized power structures have placed on local government development. The persistence of the constitution supported federated model has

centralized power while delegating defined functions to the state levels of government. The Indian federation exists on the centres' terms with little autonomy given to growing local governments. With mega cities depending on the centre for reforms, policy making and implementation have become increasingly separated. In principle, Indian civil service staff members are deputed closer to the centre to help with policy development and implementation before going back to their home departments. This rarely happens as staff continues to look for positions that closely orbit the centres of power. As a result of collective upward aspirations, those managing projects rarely possess ground experience¹²⁸. Long held distrust of local governments by higher tiers of government has resulted in little more than talk of financial decentralization in the wake of continued urban deterioration (Data, 1969).

India's policy commentators point to the overlapping roles of state and non-state actors, and the need for monitoring, evaluation and transparency (Mukhija, V., 2001). Critics of non-state involvement point to the tendency of some NGOs to cater solely to the interests of middle and upper income groups. The shift in service delivery activity, critics argue, is creating a double standard of citizenship, where the poor are increasingly marginalized (Zerah, M-H, 2009). Others caution of the increasing number of NGO actors in an expanding urban context (Desai, 1999). Social policy commentators express concerns that isolated support for lower income groups will simply result in disparities across poor communities. In the meantime, the state will continue to withdraw from its responsibilities to engage informal settlements. There are a few NGOs that facilitate water and sanitation as well as solid waste collection to informal settlements (Ghosh et al, 2008). Others engage in slum rehabilitation as well as land negotiations (Patel and Sharma, 1998). A dependency on foreign funds undermines financial self-sufficiency, although some locally designed models are tailored to mixed uses.

6.2.2 The condition of municipal institutions

Mumbai is home to several institutions that represent upper and lower tier actors. Many of these departments share overlapping functions and mandates. The city government is essentially a state within a state and behaves as such (Pinto, M., 2008). The city and suburban district of Mumbai is

¹²⁸ For a more thorough examination of the dynamics around the ICS, Mahareshti and Subramaniam provide a thorough discussion.

managed by the Bombay Municipal Corporation (BMC), now known as the Municipal Corporation of Greater Mumbai (MCGM). The MCGM is in charge of public transport, health, education, water supply and sewage, slum improvement and electricity distribution. The Corporation is headed by a state appointed commissioner and an elected mayor (PAC-IDRC, 2012). Tensions between the MCGM's appointed and elected officers have led to divergences in political and administrative accountability across Mumbai's institutions. Another key authority in the city is the Mumbai Municipal Redevelopment Authority (MMRDA). The Metropolitan Development Authority, an apex body of the state government, implements metropolitan plans and development projects (such as large water and sanitation infrastructure). Critics point to the MMRDA's politicized development agenda and lack of coordination with local bodies such as the MCGM (Bannerjee-Guha, S., 2002). However, such commentaries avoid disaggregating the roles of municipal actors and state authorities (Banerjee-Guha, S., 1992, 2002).

Mumbai's main municipal institutions are characterized by misalignment, allegations of corruption and ineptitude. The MCGM and MMRDA are in constant conflict over policies, approvals and even routine project implementation. The 227 member council run MCGM is accused of corruption and mismanagement (Pinto, M., 2008). In 1998, the MCGM experienced a bout of mayor in council management, expected to improve performance, but since then has been managed as a commissioner system. Aside from 150 amendments, its structures and activities have remained unchanged since 1888 (Pinto, M., 2008). A number of standing committees, formed by the heads of different functional and geographic areas, struggle to check a commissioner and a network of additional, deputy and ward commissioners. Comprehensive governance is non-existent and the commissioner really has no elected counterpart to bridge the political, state and administrative wings (Pinto, M., 2008). Divided party loyalties result in the slow pace of intra-sector fund disbursement and distribution (Ruet et al, 2002). For instance, the capture of the BMC by the Shiv Sena, placing it at odds with the Congress run state government of Maharashtra has resulted in several delays in infrastructure planning and millions of dollars of cost over runs, such as the WB funded Mumbai Sewage Disposal Project (Chaplin, 2011). Policy researchers point out that unless a water department is separated from the BMC, administering reform will be difficult (Ruet et al, 2002).

The politicization of municipal institutions by the upper tiers of the state through the ICS is self-evident. As municipal governments are 'beneath' the upwardly aspiring civil service, their capacities and capabilities have been increasingly marginalized as policy making has been exclusive to networks of elite

members of the ICS. Competition from state and centrist departments also provides another front of policy tension to contend with. While large cities are incorporated, their actual power base and policy making ability is constrained. Mumbai was superseded in 1984 by a strong, centrist state government, which created several duplicate departments and political appointments to maintain its hold on Mumbai's policy direction. The creation of single purpose agencies by the state government has led to several problems for policy making in Mumbai (Maheshwari, 1999).

As a result of mal governance, revenue collection and operational funding has become complicated for the city. For instance, tax and non-tax revenue substantially outweigh the number of grants and transfers paid to the mega city. The MCGM is struggling to improve the percentages of property tax collection and reduce the number of cases in litigation and dispute (PAC-IDRC, 2012). In reality however, Mumbai's development has been largely the function of a corporate agenda that seeks to make it a world class city (MQI, 2005). The establishment of several committees to monitor the transformation of Mumbai, questions the city's inclusivity, where middle class interests are increasing in the policy agenda with those of the marginalized being excluded (Ghosh et al, 2008; D'Monte, D., 2005).

Several other institutions also contribute to Mumbai's complicated urban planning and management context. The MHADA and MSRDC are in charge of housing and transportation, on behalf of the state government. Other subservient departments within the MCGM include the Mumbai building and repair and reconstruction board, Mumbai slum improvement board, Slum rehabilitation authority, Maharashtra water and sewerage board and Mumbai Police Department. In 2005, 81 inspectors and 4413 police constables were living in slums (Patel, S.B., 2005). All of the organizations that report to the state government lack coordinated policies and programs with the MCGM. The lack of clarity in accountability to the public as well as the state government also results in problems for governance such as sufficient funding and sustainability plans (Pinto, M., 2008).

Mumbai has become a divided city along political and class lines. The mega city has become a contested political arena, with the NCP, BJP, Congress and Shiv Sena all competing for power over the MCGM (Ghosh et al 2009). The politicization of Mumbai's responses to disasters has uncovered party motivations. For instance, the floods and riots of the mid 1990s and 2000s exposed the influence of the Shiv Sena over the MCGM. Despite the 'adjustments to governance' claimed by the party's interests, the divisive tactics of the Hindu right have been raised across several media outlets (Hansen, T.B., 2000). A politicized MCGM overlooks a polarized city, with the wealthy in the western suburbs and the working

class situated towards the eastern and north western suburbs (Ghosh et al, 2009). The evolution of a regulatory state into a predatory state has impacted the informal sector the most (Anjaria, 2006). Policy knowledge is not the issue, rather the neglect of the upper tiers of government to organize, discuss and pass legislation without any thought of the legal framework and self-empowerment of cities (Sivaramakrishnan, 2000). Commentators have pointed out that in order for services to work for the informal sector more analysis is needed regarding intergovernmental responsibilities as well as the involvement of non-state actors in service delivery (Devarajan and Shan, 2004).

Mumbai is typical of many Indian cities, in that governance is centralized at the national and state level and little power percolates down to the municipal level (Kumar, 2006). Critics point to the flaws of planning where distant upper tier actors develop unfeasible and unsustainable policies that blatantly neglect the urban poor (Harris, N., 1984). The lack of implementation speaks to the need for state governments to empower municipal corporations such as Mumbai (D'Souza, J.B., 1991). In terms of service delivery, Mumbai performs far below municipal comparators in the basic services standard (MGI, 2010). Studies conclude that based on current trends, urban services (water, sanitation and solid waste) quality will deteriorate sharply by 2030 (MGI, 2010). As a result, there have been several calls for administrative reform, to which I now turn.

6.2.3 Calls for Political and Administrative Reform

Mumbai's outdated political acts and administrative structures have drawn calls for reform, ranging from increasing levels of intergovernmental cooperation and municipal autonomy to fully privatizing key services. One suggestion is to blend MMRDA and MCGM committees in order to streamline the implementation of planning initiatives (Pinto, M., 2008; Ruet, J. et al, 2009). While devolving decision making from the upper tier will face resistance, planning commentators counter that shared decision making will address the lack of performance by the upper tier MMRDA (Phatak and Patel, 2005). Another suggestion has been to demarcate responsibilities of the MCGM, thereby implementing the

devolution of power as per state government initiatives¹²⁹ (Phatak and Patel, 2005). Clarifying MCGM responsibilities with dedicated departments and elected councils would arguably improve service delivery by making performance accountable to the people (Phatak and Patel, 2005). Regardless of the structure, the creation of a metropolitan government that is accountable to Mumbaikers is central to most recommendations.

Non-state actors have increased in their operation across Mumbai, with mixed results and responses from urban activists. A number of non-state actors have responded to state shortfalls in service delivery (Pinto, M., 2008). Mumbai's NGOs have also increased advocacy efforts with increasing migrant labor populations. The citizen group, Save Bombay Committee (SBC) has worked to counter and challenge development with some success (Mehta, K., 1985). Many of the developments have been funded by the central and state government, oddly enough, and the SBC has fought indirectly for upper tier recognition of municipal zoning and development bylaws. The Bombay Environmental Action Group (BEAG) has performed a similar function in fighting development beyond the capacity of the municipality (Chaini, S., 1985). In many cases, they have argued and fought alongside press against politicians with developers backing, for rules set by the BMC, BMRDA and other municipally based bodies (Chaini, S., 1985). Critics argue that people centered development requires coordination and evaluation, where several actors engage the state across different contexts (Pinto, M., 2006). According to evidence by Nainan and Baud, the abilities of non-state actors have decreased from state engagement down to the city and neighborhood and wards levels. As NGOs and CBOs are elected to ward committees, there may be evidence of their representation of the needs of the poor for service delivery changes at that level. The complexity of state and non-state relations across the densely populated landscape of Mumbai highlights the importance of state and non-state engagement to facilitate and extend service delivery to the informal sector. I now turn to the water and sanitation

¹²⁹ These initiatives should include the slum rehabilitation authority scheme (1995), changes in FSI for redevelopment of cessed buildings (1999) and alterations in DCR regarding redevelopment of textile mills (2001). Article 243S indicates that ward committees in larger cities should experience the devolution of powers and functions. In Mumbai, the 16 ward committees have not been constituted nor have they received discernible functions.

service delivery context to obtain a better understanding of the relationships between upper and lower tier actors in engaging the informal sector.

6.3 Water and Sanitation Context

Mumbai's water and sanitation service delivery context illustrates the complexities of extending service delivery to a polarized city. A network of elite interests has captured resources that would otherwise be reinvested into sustaining the city's deteriorating infrastructure. In the absence of dedicated funds for service extension, a growing number of dense, low income communities struggle with access. For instance, the MCGM supplies enough water to meet the basic needs of all of Mumbai's residents, from the wealthy neighborhoods of *'Bel India'* to the slums of *Dharavi*. Unfortunately the city suffers from severe inequities in distribution¹³⁰. Although piped water is availability to ninety two percent of the city's households, the number of connections per capita is substantially lower in slums. This gap in service is in spite of the large number of stand posts, mixed and communal water points scattered throughout low income communities (YUVA and Montgomery Watson Consultants, India, 2001 in PAC-IDRC, 2012). Furthermore, sufficient water pressure is available for a few hours during certain times of the day. Slum dwellers must collect water during these times to avoid scarcity and meet their household needs. To date, slum dwellers account for almost 57.7 percent of the city's population continue to experience poor access to water and sanitation facilities (PAC-IDRC, 2012). Per capita expenditures on water and sewage by the MCGM have fluctuated in recent years, reflecting attempts to mitigate differences in access to water and sewage service.

Mumbai has a two-tier sewerage system. Most slum dwellings are not connected to this system. The MCGM's sewage system services forty two percent of the city's households. Of Mumbai's 8 million slum dwellers, nearly fifty percent live in authorised slums with some toilet facility¹³¹. Innovative solutions are still challenged by the poor design and the operational and maintenance challenges of public toilets.

¹³⁰ Slums receive less than 90 LPCD and other areas received as high as 300 to 350 LPCD. Both numbers violate the norm of 135 set by the national commission on urbanization and the ministry of urban development benchmarks. In fact, the large trunk mains that supply water to Mumbai's wealthier enclaves run directly through the city's largest slum, *Dharavi*. The large diameter, steel gauge pipes are not connected to slum communities and are instead, used as footpaths by slum dwellers.

¹³¹ The remaining fifty percent use either public toilets, or practice open defecation.

Public sanitation facilities are also very few and those that exist are usually filthy, broken down and generally unusable. Vulnerable groups, particularly women, indicate that it is safer to defecate in the open than to use some public sanitation facilities. Of the 36,704 public toilets that exist (101 persons/seat) 12,612 (or 1/3) are non-functioning. The underground sewerage system releases the treated discharge 3.5 km offshore into the Indian Ocean. The rest flows into a network of open creeks and natural drains that discharge into the sea (PAC-IDRC, 2012). All sewage drains to the creek as a septic flow, toxic during monsoons. A regional climatic feature of Mumbai's water and sanitation context is the impact of the seasonal monsoons on infrastructure. Every year, the monsoon rains raise flood waters across the city, damaging underground and above ground infrastructure. In 2005, mass flooding claimed 500 lives in Mumbai, with impacts on Mumbai's policy and governance landscape. Short term solutions to monsoon flooding have dominated the political discussions around infrastructure, overshadowing equitable service delivery to marginalized segments of society, including informal settlements (slums). Let us now turn to the comparator variables that will assess in detail, the challenges facing service delivery to Mumbai's water and sanitation end users.

6.3.1 Political representation

Secondary research reveals that elected officials across Mumbai have shown little interest in extending service delivery to informal settlements. The reactions of elected officials range from crisis management (storm water) to passive monitoring (water) and sheer neglect (wastewater). The status quo, where elected officials provide water in return for votes, appears to be the accepted norm in Mumbai (Bapat and Agarwal, 2003). Furthermore, state governments in Mumbai have not made any regulatory efforts in enforcing water quality or sewage discharge standards to curtail the activities of polluting industries (EPW, 1987). In fact, elected officials assure industries that applications for service connections will be result in 24/7 supply by the BMC and water works offices. Slum dweller access to scarce water supplies depends upon the plumber they employ via the elected councillors' letter of endorsement. A sophisticated system of patronage and engagement between councillors, engineers and 'slum lords' dictates patterns of service delivery (Anand, N., 2000). Politicians are provided with allowances which are used to maintain water based services to the poor (Zerah, M-H., 2005). As Gopakumar rightly points out, there is ample evidence that points to the designs of 'strategic partners' who leverage resources and common agendas to ensure that the water regime continues to operate (Gopakumar, G., 2012).

Sanitation and storm water systems also suffer from political deadlocks and a political economy of planning and development. When the Shiv Sena leadership was elected to lead the BMC (MCGM), their acrimonious relationship with the Congress led state government has led to several delays in sanitation projects, the most obvious being the 1979 initiated WB funded Mumbai Sewage disposal (Chaplin, S., 2011). In the meantime, narrowly defined development plans have continued to push for slum demolition, rather than rehabilitation (Chapin, S., 2011; IRC, 2008). While slum dwellers and their advocates fight for their rights, poor sanitation persists, leading to the spread of disease. Analysts blame the politician-development nexus for the current situation, as vacant land for drainage continues to be sold off to the highest bidding developers (Prabhu, 2005). Planning continues to neglect the housing needs of the poor and storm water channels are encroached upon by informal settlements. When the Mithi River overflows, both the lower and higher income groups suffer from infrastructure failure. Public anger in the wake of such disasters has done little to disentangle the network of state and private actors who benefit from the status quo. Many analysts argue that the floods of 2005 and other disasters could be averted if accountability were transferred from elected officials with statewide responsibilities to local officers (Phatak and Patel, 2005; Hoskote, R., 2005).

Research by non-state actors and advocates for the urban poor reveals that the informal sector is left to struggle for habitation on marginalized, flood prone land. The lack of solidarity among fragmented and isolated groups has perpetuated the feeling of disempowerment. Ethnic and religious ties bind communities in the absence of other networks. Commentators point out that Mumbai is being taken from economic to political to managerial policy dictates as a result of bad governance (Paul, 2011). The counter offered by researchers is to establish good government which is efficient, independent, accountable and characterized by an open public service (Leftwich, 1994). Services to the poor by the providing state must treat them as citizens and in the case of Mumbai, as co-producers of service to informal settlements (WDR, 2004; Ostrom, 1997). I now turn to the condition of municipal public service actors, in the next comparator variable.

6.3.2 Administrative accountability/transparency

Secondary research reveals little evidence of accountability or transparency in Mumbai's water and sanitation departments. Accountability mechanisms and procedural transparency has not evolved since colonial times and polarized service delivery has persisted (Zerah, M-H., 2005). Service delivery extension has been the result of development catered towards connections for the middle and upper

class and not the poor. As localized tax bases (rather than broader development funds) underpin service delivery, no links between water and sanitation have been made (Zerah, M-H., 2005). The only accountability framework resides with ALMs and other more neighbourhood and ward level offices, which are familiar with local and sub local needs (Chaplin, S., 2011).

The Department of Sewerage Operations of the Municipal Corporation of Greater Mumbai (MCGM) is responsible for the collection, conveyance and disposal of sewage/waste water generated in the residential, commercial and industrial premises in Mumbai. MCGM collected tariffs amounting to Rs. 4.56 billion in 2003-04 with an expenditure of about Rs. 3.0 billion on operations, making a net operational income of Rs. 1.56 billion. Commentators have questioned why more money was not invested in infrastructure and maintaining a state of good repair, as Mumbai's drainage and sewage pipes are over 100 years old. Where they run in parallel, leakages in sewage contaminate water lines. Small diameter lines are clogged with solid waste and silt. The informal and unplanned expansion challenges replacement. The collection and disposal of waste water and sewage in Mumbai is divided into seven zones, from which sewage and waste water is collected and drawn marine outfalls, some three kilometres into the sea. There are 53 pumping stations for pumping the sewage/waste water from lower level to higher level and there are 54,000 manholes for maintenance of 1,400 km long network of the sewerage system.

The equitable supply of water has been challenged on many fronts. Upper tier technocrats emerged as powerful forces that shaped post-colonial Mumbai and ensured services to formal settlements in line with development plans. Studies reveal that technocrats were interested in retaining state government authority over services, rather than actually improving service delivery (Anand, 2009). In the absence of an autonomous utility, water and sanitation projects have been given a low priority by both state actors and donors (Phatak and Patel, 2005). While the MCGM believes that water supply will be ample, critics from organizations such as the Tata institute for social sciences point to a twenty six percent shortfall (Menon, M., 2006). Little thought has been given to engaging informal settlements that lack access to official service connections. While the average flat consumes 200 liters per day, slum households struggle with 80 to 130 liters per day (Menon, M., 2006). Where supply is intermittent, the social mobilization of the poor to access service only elevates the power and authority of the political-development nexus who then release water to the poor and wealthy (Anand, N., 2000).

Sanitation has also suffered from challenges in breaking the status quo of patronage and votes for services. For instance, the WB funded 'Slum Sanitation Program' (SSP) was fraught with implementation challenges. Although the initial concept was based on a shared approach, it was difficult to get communities to participate who had already experienced some upgrading and who were used to obtaining 'services for votes'. Even though the program was launched through the MCGM with reputable NGOs, poor management and cooption by local actors, has led to mixed results. The political, business and personal agendas of powerful local actors have often trumped community needs. The weak respond with an interest in obtaining household connections to the sanitation system (Chaplin, S., 2011). Some toilet blocks were used as dumps and others fell into disrepair in the absence of sustainment plans. Other blocks of toilets have been insufficient for the local population. For example, the BMC built 40 toilet blocks in Kamla Nagar for 80,000 families (Chaplin, S., 2011).

It appears that the extension of water and sanitation services is largely a function of catering to elite interests. The poor will only benefit from local design and ownership. The political economy of water supply is unlikely to cease until a dedicated department takes ownership of resource management. On the sanitation side, the NMMRA is the first large scale toilet block plan that seeks to extend service outside of patronage politics. Several NGOs such as SPARC are in the mix and will likely be involved in the operations and maintenance of these blocks following construction (Chaplin, S., 2011). Nevertheless, local ownership of service delivery will require some level of facilitation by a lower tier actor (beyond state department support) if service delivery is to be sustainable.

6.3.3 Intergovernmental support and policy failures

Secondary research reveals that intergovernmental support for Mumbai's water and sanitation sector is disabling on a number of fronts. First, policy research points to the debilitating policy environment and the need for an autonomous, stand-alone department to manage Mumbai's water and sanitation responsibilities. Research on Mumbai's planning and management regime reveals the need for more intergovernmental communication (City Alliance, 2008). Second, severe flooding events reveal that the current levels of infrastructure are not enough to meet the needs of population growth and climate change.

Mumbai's inefficient and ineffective governance environment has been the target of policy research and program analysis beyond water and sanitation. The authority to make decisions at the city level is

retained at the state level, where state priorities, political agendas and bureaucratic inefficiencies undermine coordinated planning and municipal needs (Sharma, K., 2003; Pinto, M., 2008). For example, upper tier state actors resist interstate water sharing with Mumbai, for fear of experiencing shortages. NGO actors point out that despite the state governmental subsidizing 70 percent of the cost of the toilet blocks, most slum dwellers still struggle with access (Patel et al, 2007). This supports the finding that lower tier actors who lack professional training are unable to negotiate with upper tier actors during the design phases of these blocks (WB, 2011). Furthermore, the State government does not implement or enforce licensed standards that have been established by the MCGM (EPW, 1987). Similarly, state government defined sanitation performance targets are not supported by upper tier policies. When slum management was uploaded to the state and central governments, slum upgrading discussions (which involve municipal services) were neglected as policies and initiatives were repackaged for political purposes (Sivaramakrishnan, 2000). The 2005 Jawarlal Nehru Urban Revitalization Movement (JNNURM) and other upper tier led initiatives focus on large infrastructure development projects. Progress at the city levels, indicative of poor state-city coordination, is limited (WB, 2012; Sivaramakrishnan, 2009). Researchers point to the ongoing struggle between state and national elites, which is at the root of municipal policy problems (Harvey, 2001). NGOs active in the field of sanitation point to gains in relationship building with local government actors, but avoid engaging the upper tier state actors given the lack of policy traction and will to implement. In the meantime, Mumbai's core municipal service delivery functions and poverty alleviation programs remain unfulfilled.

The concentration of planning and implementation power at the upper tiers results in uninformed policy making and poor implementation. The implications of the centralized model for Mumbai's planning and urban projects, is additional review, approvals and revisions, which are often the cause for delays (Pinto, M., 2008). The management of such programs by departments housed in ministries in Delhi rather than representing local needs and concerns in Mumbai is a challenge for effective and efficient city management (i.e. slum protection and resettlement policies should be in the MCGM rather than the Ministry of Housing) (Sharamayakrishnan, 2004). Furthermore, coordination between and across state and municipal actors is nonexistent (Wisner, 2000). There is no oversight or support for service delivery providers in different city districts. Engineering efforts within the post-colonial administration are caught between an unmapped legacy, political service requests/patronage and waived bills that result in ad hoc services to the poor, appropriation by the middle class and the erosion of any efforts to galvanize and sustain a master plan (Anand, N., 2009). Municipal functionaries guide political and consumer

stakeholders around the rules when they are too restrictive. The result is erosion of the system, but meeting short term demands.

The 2005 floods in Mumbai brought the intergovernmental disarray into full public view. A review by local researchers reveals that upper tiers of the state governments hold the power to create acts, policies and procedures that are cumbersome and onerous for lower tiers of the state to follow in making necessary policy changes (Phatak and Patel, 2005; Pachauri, 2005). A review by EPW researchers reveals a policy disconnect between upper and lower tiers of the state that dates back to colonial era policy development behaviour. On the one hand, the state government holds the authority for physical and land use planning for metropolitan regions including Mumbai. The Municipal Disaster Plan (DP) requires the MCGM to declare boundaries, survey and map land uses through public engagement. However, when the MCGM submitted a draft after 3 years of development, it took another 13 years for it to be approved (EPW, 1987). Furthermore, the final draft did not take into account storm drainage capacities, water distribution or sewage collection networks, as the state government was only interested in land use zoning and real estate market indicators (Phatak and Patel, 2005).

The flood also revealed the disastrous environmental impacts of market led development and the policy paralysis of Neoliberal priorities. A combination of stripped river front mangroves (lack of environmental regulation), choking flows of waste (eroded regard for solid waste and sewage/storm water management), encroachment by illegal development (land real estate market disregard for environmental or state land zoning and bylaws) all exposed municipal mismanagement and market greed (Hariyale and Thane, 2006). The search for an accountable body revealed how hemmed in Mumbai's administration had become to operating on command and control based assumptions – based in 1970s environmental contexts (Hoskote, R., 2005). A study was soon commissioned to study the floods and prevent a recurrence. The policy implications of the study's recommendations are arguably beyond the capability of the current governance framework. Namely, creating an urban hydrology authority that oversees the construction of storm water pumping stations, widening the river and resolving disputes between the airport authority and all other state actors with construction based activities; is accused of being naïve. The largely engineering based solutions ignore socio economic challenges and political issues of intergovernmental power and control. The pace of neoliberal development is also beyond critique, leave alone policy reform.

Severe flooding events have also revealed disparities between rich and poor. Slums were the most affected in terms of property damage and disease outbreaks (Bavadam, 2005). Although lower income groups were among the most affected, many blame the paving over of Mumbai and the lack of sufficient drainage for the deluge (Katakam et al, 2005). Poor slum dwellers are often the last to receive support from the government. Of the slums that did receive state support, few witnessed an ongoing state presence. Instead, relief efforts and implementation were left to independent non-state actors already engaged in the slums. The result has been discontinuous relief and support. For instance, although the Sulabh International 'twin flush toilet' sanitation program led to improved outcomes through CBO engagement, its implementation took longer across state departments which lacked intergovernmental communication (ADB, 2011). The state seems to take an approach of helping the informal sector just enough to pacify them before leaving so that they cannot rebuild on the land they were occupying (Bavadam, 2005). So, while a gap between state and city (upper and lower tier actors) exists, another gap between lower tier actors (state and non-state) also requires analysis.

6.3.4 Citizen engagement or pro-poor engagement

Policy and program research reveals a polarized environment of citizen engagement in Mumbai. Although upper tier actors insist that services are equally distributed to all of Mumbai's residents, it is the wealthier communities that are engaged by the state. Non-state actors are indirectly deferred to for the provision of services to informal settlements. For instance, upper tier actors point to the pro poor sections of national and state government formulated policies. Although the state level Maharashtra Housing and Area Development Authority is responsible for toilet blocks, it is unable to design or construct the appropriate infrastructure (Zerah, M-H., 2005). Critical policy research also reveals that state legislators have been unable to address the lack of water supply to slums. The MCGM's hydraulic department is in charge of water supply and sewage. Although it is organized hierarchically at the ward level, it possesses insufficient authority to address the power structures that are embedded in Mumbai's slums. Furthermore, while non-state actors are able to engage informal settlements, they are unable to ensure supply once connections are established. As a result, shortages in water supply continue to exact a toll on lower income groups in society (Cooper, 2011). Paradoxically, low lying urban areas that are inundated with flood water continue to struggle with water scarcity (Angweleter, 2005).

Many policy researchers have pointed out that citizen engagement has been appropriated by influential groups and individuals across Mumbai's various districts and wards. For example, neighbourhood groups

(ALMs) across Mumbai work closely with elected officials at the ward level to resolve service delivery issues. The activism of these middle income groups ensures the steady supply of water along with other services, to their communities (Gandy, M., 2008). In an effort to guard against potential shortages, these groups have been observed to pressure state actors to restrict services to slum communities (DSK, 2013). The manipulation of services is not only restricted to neighbourhood groups. Political negotiations in the microspheres of Mumbai reveals how community leaders obtain services for their constituents only to compromise it (Gandy, M., 2008). Some slum lords have been observed to apply for service connections under the guise of a CBO, only to turn it into a business operation or private use. Critics have cautioned that non-state actors that are engaging the state on behalf of lower income groups are not always interested in the betterment of the poor and need to be clear in the representation of interests (Srinivasan, 1980).

Pro poor engagement or citizen engagement is increasing in breadth as the city realizes that it cannot engage all stakeholders. Volunteer groups such as AGNI are trying to get people of various wards to demand that consultants are not hired and that residents are engaged in participatory decision making. Some of them argue that as MCGM claims that ninety percent of bills are collected, the issue should be to reduce wastage and plug leaks. Lobbyists within this segment of civil society argue that based on such MCGM reports, privatization should not even enter the equation (Menon, M., 2006). Some NGOs engage the system on behalf of slums, but the sustainment comes from political attention and advocacy, as the Alliance (SPARC, National Slum Dwellers Alliance and Mahila Milan) are doing. The simultaneous resistance to and engagement of the state illustrates how contested urban spaces include the struggle for service delivery to the informal sector (McFarlane, 2008).

6.3.5 Donor/Civil society activity

Secondary research reveals the prominent role of donor and civil society actors in the extension of service delivery to informal settlements. In Mumbai, state actors are increasingly cooperating with donor and NGO actors to improve the conditions of sanitation in slums. Mumbai has witnessed the highest number of instances of state and non-state cooperation for sanitation solutions, reflecting the resurgence of capital and businesses, receptive to civil society supported, ground up solutions (Chaplin, S., 2011). Although success has been experienced through state and non-state cooperation, challenges remain to scaling up solutions through capital intensive funding or replicating locally designed solutions through increased community engagement.

Civil society supported sanitation models have gained acceptance due to their focus on local design and sustainability. These models have also been able to side step the power structures that surround 'public assets' such as community toilet blocks. Sulabh International's (SI) design and development of 'stand-alone' composting toilets for low income communities and slums is world renowned (WSP, 2004). Part of its success has been the requisite education for uptake, which has been too slow for 'top down', mass produced solutions (CWAP, 2011). The SI solution has been remodeled by other NGOs into twin flush toilets blocks, pay as you go and free (UNDP, 2011). Most recently, SPARC bid on and won an SSP proposal to construct 320 toilet blocks in Mumbai, causing the government to change bid processes to allow NGOs to compete with for profit contractors (Chaplin, S., 2012). SPARC work on community designed blocks has proven to MCGM staff the value of CBO engagement and design (Burra et al, 2003). Some challenges with how they are managed and contractors and businesses using them more as a profit taking rather than for community service. SPARC success has shown that transparency of implementation is critical to success (Sharma and Bhure, 2005). A lack of transparency and cooperation led to the failure of the 1979 Mumbai Sewage disposal project, which saw disagreement between the WB, contractor and the BMC, resulting in wasted money and cost over runs (Chaplin, S., 2012).

Donor agencies, frustrated with the lack of congruency between state actors, have also called for more efforts towards local government autonomy, with performance measurement and management measures. Internal reforms, they argue, are required for improved service delivery before any discussion of privatization. Recent discussions among non-state actors suggest that 'Performance based contracts', whether they are private or public governed, may serve as a solution to the PPP debate (WB, 2014). Civil society initiatives suggest more enabling factors for local level initiatives in collaboration with the poor, which is aligned with the suite of solutions based on what is pro poor, homogenous and easily monitored (Devarajan and Shah, 2004).

NGOs such as YUVA and Toxics Link have engaged the MCGM to encourage and instill the environmental status of slums and citizens' rights into the city's operations (YUVA, 1999). YUVA and SPARC are also engaged in a lot of stand post water work, extending some level of water supply to slum communities (Ruet, 2002). Unfortunately, much of their efforts have been steamrolled by development projects and the continuous threats of evictions. Nevertheless, citizen action and community organization has buttressed efforts through the MCGM to raise environmental concerns on a broader, urban scale that cuts across class lines. As far as the fringes of Mumbai 'water scarce' communities are concerned, a

number of actors continue to engage in petty politics to supply water to poor communities (Contractor, 2012).

6.4 Case Studies

I now turn to two case studies in Mumbai that illustrate the tensions between upper and lower tier actors in extending service delivery to informal settlements. As I was not able to visit the two profiled communities in Mumbai due to travel restrictions, I have triangulated the evidence provided by the non-state actors (NGO and CBO) with analysis and commentary on the state of sanitation efforts in Mumbai's informal settlements from academic and policy research.

6.4.1 The Case of *Dadar TT*: A Successful Outcome

Since the 1960s, Sulabh International has been advocating for and spreading the simplicity of the twin flush toilet to poor communities across India where water and sanitation services are non-existent. The use of the composting twin flush toilet has liberated lower caste 'untouchable' females from tending to latrines and carrying away 'night soil' by hand across countless slums. The Dr. Pathak invented "twin-pit pour-flush toilet" is capable of standalone solutions or connections with a municipal sewage system. Starting in Bihar in the early-1970s, the model has been replicated by several NGOs across India and beyond. In Mumbai, the Sulabh model has been implemented most recently by SPARC. The successes and failures of various applications of the Sulabh model across the city and country (pay per use, subsidized, free of cost) has generated critical development discussions with respect to the state and non-state provision of sanitation services.

6.4.1.1 Background

In 1988, the first '*Sulabh Shouchalaya*' was constructed in Mumbai at *Dadar TT* near the Asiad Bus Stand. Despite a reliance on donor funds for the initial capital construction, the toilet block was able to pay for itself within several months of operation. High levels of commuter bus stand traffic provided a steady and consistent flow of pay per use customers. This generated sufficient revenues for operations and maintenance as well as loan repayments on the initial construction costs.

The success of subsequent SI implementations has been linked to higher commuter and pedestrian traffic. Deployment at train stations, bus stations and city junctions results in their heavy use and considerable daily revenue by those who can afford it. It is estimated that Sulabh and the sponsoring

organization are consistently able to cover their construction costs in less than a year. The surplus can then cross-subsidise toilets built in slums where residents are unable to pay for infrequent usage. The project's success has resulted in Sulabh constructing 309 public sanitary blocks all over Mumbai. Out of 309 public toilet blocks, 243 are funded by MCGM while various donors have funded the balance. Similar to the pilot at *Dadar TT*, Sulabh maintains these toilet blocks through charges collected from the users. Of these 309, nearly 200 are in the slum areas while 100 odd are in commercial areas. The charge in commercial areas is Rs 2 per person. Slum-dwelling families are issued monthly passes for Rs 10 only. This slum subsidy is met through collections in the commercial area at Rs 2 per person.

In situations where the private sector has been contracted to design, build and operate public toilets, the outcomes have been mixed. In these situations, operating models have departed from site specific pay per use designs pioneered at *Dadar TT*. In 1997, the Maharashtra Government issued a contract for providing public toilets in urban areas for which a HUDCO loan as well as a Government of India subsidy at Rs 350 per person were provided for a two-year period. Based on this, Sulabh International in collaboration with Solid Waste Department of the MCGM prepared a project for 767 toilet blocks. The cost of 660 million was divided between the Central and State Government as well as a HUDCO loan. Although SI pursued the work with the help of upper tier state officials (MR Shah), the project launch was delayed for three years¹³². This experience highlights the vested interests that are drawn to capital intensive infrastructure projects in Mumbai. Civic staff asks for a "price" for giving the clearances; Contractors build inferior structures calculating the bribes to vested interests as part of their 'project costs'. It is this lobby of politicians, contractors, slumlords and civic staff that is against 'right' solutions, as their channel of making money stops.

In other municipalities, similar outcomes have been documented where contracting out to the private sector was accompanied by subsidization and the granting of free space by the municipality. Over time, as profits fell, operators lost interest in running the toilets. With no incentives for upkeep, little was

¹³² In 2000, the Government had provided funding for only two years. When this GR was brought to the notice of the then Municipal Commissioner of Thane, T Chandrashekhar, he immediately acted upon the information and some 65 Sulabh Shouchalayas were constructed in Thane.

invested in keeping the toilets clean and in a state of good repair. Third party inspections are absent and as a result, dozens of such toilet blocks are now virtually unusable. The Corporation has tried to hand over operations and maintenance to private companies again. Communal slum facilities, built by municipalities are entirely without subsidization. The ratio of people to toilets in many slums can be as high as 1:2,500 per toilet seat. User charges in slum toilets -- Rs 20 per family per month -- are insufficient to generate adequate revenue to cover operations and maintenance. Hence, here, either a cross-subsidy or a direct subsidy is unavoidable.

6.4.1.2 Intervention

In cities like Mumbai, municipalities have engaged NGOs working with the urban poor to design construct and maintain public toilets in slum areas. The funds for these projects are with the municipality, usually lying unused. The private part of the partnership is therefore not in funds, but in execution. Several NGOs, including Shelter Associates and SPARC (Society for Area Resource Centres) bid for contracts to construct toilets. These groups consulted communities where the toilets would be built, included CBO leadership in the design and the location, and encouraged people from the community to be part of the construction process. For instance, children would continue to defecate in the open even where a toilet was available because the toilet pan was too wide for the child to straddle. As a result, mothers would let their children defecate just outside the toilet block making the approach to the toilet filthy. The NGO-CBO group would then design a separate children's toilet. In some slums in Mumbai, where SPARC undertook the work, a community centre was built on top of the toilet block. And the caretaker and his family lived in a room above the block. Evidence from CBOs and the policy literature confirm that the results were cleaner and better maintained facilities.

This case study and the supporting examples highlights the differences between upper and lower tier actors in service delivery extension. Cooperation between lower tier state and non-state actors has generated positive outcomes in sanitation block construction and sustainment. The premise has been on 'community led development models'. However, research has noted that once 'scaling up' takes place through upper tier capital intensive projects and funding models, bribery is observed which results in pay outs, inefficiencies and project delays. Furthermore, sustainment concerns such as operations and maintenance expenses are neglected resulting in eventual project failures. As with the other cases, there is no evidence of political support by elected officials nor is there substantial intergovernmental support for lower tier activity. Local design driven by lower tier non-state actors, has contributed to

positive outcomes in service delivery. Evidence from this case study points to the value of community designed 'replication', rather than more capital intensive efforts to 'scale up'.

6.4.1.3 Next Steps

There is clearly a need to focus on appropriate management of the toilet blocks. Governance issues appear to be the most challenging with such models. For instance, if a municipal corporation allows NGOs to bid for the construction of toilets, control of the money lies in the hands of petty bureaucrats¹³³. Graft among middlemen, without monitoring leads to higher costs and is a disincentive. Getting funds in time to continue construction and meet deadlines, is a disincentive for NGOs that work at the pace of community capacity.

NGO approaches to facility management also require analysis, even though the NGO will strive to enhance capacity and community development. Community based contractors raise issues of inexperience and construction flaws. Where a group has been formed to manage the toilet, the toilets risk appropriation by a local thug or moneylender who charges extortion and makes the toilet his *adda*. Use of the facility by a caretaker, who then does not have to pay rent, just ensure the facility is clean is a key element. Use of the block by the community for other purposes (savings), which cross subsidizes the toilet block, is also necessary in poorer areas. Subsidy of the block by other activities, which requires that the operator have some reach into areas with higher traffic.

Despite the documented successes and roots causes of failure in these case studies, commentators points to the need for more accountability and transparency in such partnerships to ensure service delivery to the poorest of the poor¹³⁴. The MCGM's retired MR Shah says a link between state agencies and civic authorities is required as donors and authorities operate on different time lines. Intervention is needed as donors do not have time to run from pillar to post for various complex formalities and in bureaucratic terms, guiding applications through a disjointed and inefficient administrative process.

¹³³ More transparency is clearly required to ensure that construction takes place on time and that NGOs and regular meetings with line officers and reports back to higher bureaucrats keeps the middlemen in line.

¹³⁴ Susan Chaplin's study on politics of sanitation reveals obvious weaknesses due to the range of interests at play in the sanitation context.

Commentators pose the binary solution to the toilet problem as residing within the public or the private sector. In a city and country where millions are denied basic services like clean water and sanitation, such statements undermine the complexity of problems as well as solutions. Part of the solution is the provision of secure housing in which sanitation is an integral part. But until that can be achieved (and currently it seems an almost insurmountable problem), facilities for the poor will have to be subsidised so that they may be spared the indignity that accompanies the lack of sanitation. Subsidization can take a number of forms as discussed earlier and needs to be approached and documented simultaneously with transparency between state and non-state actors. Such measures seem to be the responsible for the lack of potential in having these sanitation solutions balancing community strengths with state machinery weaknesses.

6.4.2 The Case of *Dharavi*: An Unsuccessful Outcome

Since the 1980s, the Society for the Protection of Area Resources (SPARC) has been supporting and advocating for the rights of India's 8 million slum dwellers and informal communities. The struggle to extend services to slum dwellers has been more politically charged as Mumbai's slums are among the most dense and volatile in the world. Not only are Mumbai's slums more vulnerable to evictions and demolition, but they are also the sites of sophisticated networks of patronage, revolving around slum lords and local state actors. SPARC has been increasingly involved in the design and operation of local toilet blocks, many of them based on the SI 'twin flush system'. The challenges faced by SPARC and other advocates for support to slum dwellers, highlight the need for well resourced, focused interventions in dense, sophisticated slum contexts.

6.4.2.1 Background

Generations of migrant labourers have swelled the ranks of Mumbai's informal settlements since colonial rule. Some villages however, developed into slums as the city grew around them. The most documented and researched example of this is *Dharavi*, the largest slum in Mumbai. *Dharavi* is also the

oldest slum, characterized by power structures that are well beyond the control of state authorities¹³⁵. The first official enumeration of the population living in slums was performed in 1976 and found 2.8 million people living in 1,680 settlements across city. The total population was then 5.9 million. The 2nd count in 1983 found 1,930 settlements containing 4.3 million people. The most recent estimates are that forty percent of the city's citizens are living in only 3.5 percent of the city's area (Maneschka, 2011).

The majority of *Dharavi*'s slum dwellings are not connected to the city's two tier sewage system. Several capital and operational challenges prevent service delivery extension. A survey in 1986 revealed that that there were 800 toilet blocks in *Dharavi*, for a population around 400,000 people. This equates to only 15-20 toilets per block, which has remained unchanged, despite Mumbai's population having since doubled. Of these facilities, a third are filthy, broken down and generally unusable. Many slum dwellers find it safer to defecate in the open than to use them. The sewage from these facilities is discharged into open drains and combines with storm water to flow into Mumbai's coastal zone. In the 1940s, the state constructed the *Dadar* sewage treatment plant which by the 1970s was treating ninety percent of the city's sewage. Over time, the marine outflow system was outpaced by the suburban sprawl and with unchecked aging infrastructure, it was phased out.

In the 1990s, the Mumbai Sewerage Disposal Project (MSDP) was funded by a World Bank loan of Rs 12 billion. The absence of drainage plans for slum settlements resulted in delays. After some redesign, the project was restarted in 1997 as the Slum Sanitation Program (SSP). Slum dwellers would be engaged through a onetime payment of Rs. 100 (\$2 USD). By the end of the year 2000 and Rs. 700 million in investment, only 17 toilet blocks had been constructed. At present, only forty percent of the WB funds have been utilized. The reasons for WB failures are many. A lack of coordination by the MMRDA with other state departments (land owners), slum congestion, poor engagement in design with slum dwellers, absence of MMRDA engagement of CBO during design, turnover of elected officials who cut political support for the project (or votes for service), logistics of material transport to dense slums, non-

¹³⁵ During a conference visit to *Dharavi*, interview respondents indicated that the difficulties in setting up water connection points to the slums was complicated by the presence of power structures within the slum and 'thug hierarchies' that prevented the work of development activists from setting up the necessary infrastructure.

availability of labour, partner-contractor issues (excessive profit taking) and delays in water and electricity connections from utilities to name a few.

6.4.2.2 Intervention

SPARC works with a range of NGOs within the Alliance, to set up toilet blocks, using the approach of community led total sanitation (CLDS). This approach ensures that CBOs are engaged in the design phase with the needs of women, children, the elderly and the disabled all accounted for. Having seen that civil society actors are reliable partners for building toilets that work, many government authorities have partnered with the Alliance on sanitation projects¹³⁶. In many areas, government departments provide the capital costs and infrastructure for toilet blocks, while the communities select the space, and design, construct and maintain the toilet.

Impressed by the experience of other cities, the Municipal Corporation of Greater Mumbai (MCGM) obtained support for its slum sanitation program under the World Bank-assisted Mumbai Sewage Disposal Project I (MSDP I). In the on-going MSDP II, the Alliance won the tender to construct 150 toilet blocks benefiting over 150,000 people.

The State government MMRDA also launched the Nirmal Mumbai Metropolitan Region Abhiyan (MMR) project in 2007, envisaging the construction of 100,000 public toilets across the Greater Mumbai Region in two years for a total of Rs. 690 million. The model for these toilet blocks are similar to the ones constructed under MSDP. A number of the contracted and Alliance constructed toilet blocks were cancelled due to problems with land ownership, CBO disputes, political interference, councillor-CBO conflict, slum redevelopment and space constraints. As a result of its expertise in pointing out these

¹³⁶ In 1999, the Alliance partnered with the Pune Municipal Corporation (PMC) to construct over 10,000 seats in community toilet blocks benefiting approximately 500,000 slum dwellers, within one year. The scale as well as the partnership between the municipality, NGOs and CBOs was precedent setting. The PMC provided land, capital costs, water and electricity. NGOs and CBOs designed, built and maintained the toilet blocks. The project put urban sanitation on the radar of government departments across India, as well as the World Bank's Water and Sanitation Program (WSP). Impressed by the Pune experiment, the Government of India (GOI) declared a new scheme that granted a fifty percent subsidy to states and municipalities that took up toilet block construction in slums.

concerns, SPARC has now been invited to be a member of the National Advisory Group on Sanitation (NAGOS) and the Governing Council of the World Bank's WSP.

SPARC's critique of state attempts at toilet block construction is blunt. Traditionally, the government builds toilets without community participation, resulting in poor quality construction, lack of water and electricity supply, and absence of proper maintenance and setting off a wasteful cycle of demolition and reconstruction. SPARC has noted substantial improvements in community-based sanitation and related policies and programmes. The CLTS model of slum sanitation has been successful for many reasons. Toilets are more affordable. While private providers charge 1-2 rupees per person per use, a monthly pass of Rs. 25-30 covers unlimited use for an entire family. A 1 rupee fee for passers-by helps augment a community-toilet's revenues, which pay for maintenance. Community developed innovative design features in toilet blocks, including a caretaker's room and children's toilets. The former provides accommodation and an employment opportunity, while ensuring good cleaning and maintenance; the latter helps prevent children from squatting outside because of their inability to compete with adults in queues.

Since 2004, *Dharavi* has been the target of massive government redevelopment projects. The Alliance has been working at various levels to ensure that *Dharavi's* development is inclusive of the area's residents and enterprises and opening a dialogue with the state. In 2007, SPARC moved from protesting the government's *Dharavi* Redevelopment Project, to negotiating and planning with the governmental authorities, planners and professionals in 2008. Although the NGO faced enormous criticism from activists, for conceding its role of advocate for slum dwellers, their position has changed to one of ensuring community engagement in slum redevelopment and/or resettlement¹³⁷. Since 2009, SPARC has been engaged in advocacy as well as operation of toilet blocks, leveraging its relationship with a network of CBOs as well as the MMRDA.

¹³⁷ While SPARC has been criticized for adopting such positions, the dynamic of state/non-state actors is reflective of the scale of slum engagement in Mumbai and one cannot ignore the contextual variables that may necessitate such engagement.

The difference between state and Alliance operated toilet blocks is sharp. Alliance operated toilet blocks have a decent exterior as also well-maintained, and also have clean interiors. There is a ready provision for minor repairs such as electric bulbs/tube-lights/switches, etc., or for fixing minor plumbing problems. The structure gets attention periodically in terms of painting, major repairs, etc. The attendant, who is given residential quarter above the toilet block, collects charges and oversees maintenance as well as security. Women users of Sulabh toilet from slums admit that they feel safe to come alone to a Sulabh toilet. The incidence of stomach ailments have almost vanished. Earlier, these women had to control their bowel movements till night fall, as early morning chores made it impossible to go to dirty toilets or open spaces. With improvement in the health of the family, socio-economic changes have followed. Productivity has increased, as also medical expenses have come down, thus improving economic condition of the family. The toilets' maintenance costs are minimal as they use maximum sunlight and air to save on energy and flushing systems use water conservation for irrigation. Where possible, blocks of 10 to 20 seats have a biogas plant. A Sulabh toilet block of 20 seats may cost more (Rs 60,000 compared to Rs 40,000) than a conventional block, but quality and maintenance features need to be built in. Often, funds are not the problem; bureaucratic and procedural hurdles are. The Lions Club-MCGM-Sulabh Friendship Project undertaken in 2000, spent Rs 15,000,000 on constructing 27 Sulabh Shouchalayas between Bandra and Dahanu, rather than Rs 50,000,000 due to clearance lags by the civic authorities leading to lapsed time and, consequently, lapsed budget.

The current public toilet blocks in the slums of Mumbai are funded from a number of sources. Critics point out that no matter how inadequate and unworkable, the infrastructure that exists today has been funded from public institutions, donors and elected officials¹³⁸. The utilisation is only twenty five percent because of design flaws - unworkable and most unhygienic conditions of these public toilets. This is due to poor design, a result of upper tier interventions without consultation with lower tier actors. As a result, inappropriate technology has been implemented along with mal flushing and drainage back up.

¹³⁸ Funds available with Solid Waste Management Department of MCGM, Councillors', MLAs' and MPs' funds, Funds available under Slum Improvement Scheme, MHADA for PSCs (public sanitary centres) in slums, Mumbai Port Trust in their jurisdiction, Funds available for Nirmal Bharat Abhiyan, Mumbai Sewerage Disposal Project (MSDP) and other upper tier state actors.

Another example of how a lack of funding and poor intergovernmental support, checks and balances is resulting in mismanagement and poor maintenance at the lower tiers of service delivery.

Although funding of the construction toilet blocks is estimated in the budgets, there is no provision for their maintenance. Assuming that under the conditionality of SSP, people will get involved in the maintenance, MCGM stopped recruiting scavengers to clean the toilets. So neither did the SSP become effective, nor did the MCGM take care of the maintenance. Now, day-to-day cleaning, occasional repairs of broken seats, doors, windows, taps, electric bulbs, etc., almost never take place. Water and electricity charges are not paid, so even these facilities are cut off. This means almost 7 million (not just 4 million) slum residents are forced into open defecation. Women, especially, are the worst sufferers, as they cannot go to such unsafe, dirty places; nor can they go in the open during the day. Slumlords extract money from the residents for using the public sanitation facility. Often, they are never used as toilets but for other unauthorised, illegal activities.

The experiences of design and maintenance from across *Dharavi* illustrates the risks of scaling up solutions without the requisite knowledge of sustainment models and operational realities. Toilet block initiatives developed and sustained at the lower tiers are only inundated with challenges once project ownership shifts to upper tier actors. Although its models were initially successful, the lower tier non-state actor lacked lower tier state counterparts with which to develop and formalize programs. As a result, the lower tier non-state actor (SPARC) has in many cases been drawn into controversial resettlement policies with upper tier state actors (MMRDA) as it is the sole advocate for the informal settlement. Nevertheless, the failure of project outcomes needs to be placed on the lack of intergovernmental support, accountability and transparency of service delivery project scoping and implementation. The tendency of the upper tier actor to monopolize the scale of service delivery solution development undermines the abilities of lower tier actors. In the absence of an autonomous utility, a project driven agenda is inevitable.

6.4.2.3 Next Steps

The contrasting experiences of SPARC and other state run programs reveal that a decentralized, yet site specific approach is required where the community owns the solutions innovation, installation, implementation and operations and maintenance. Assuming 50 users per toilet and a block of 20 toilets, there is a need for 4,000 such public toilet blocks for Mumbai's current slums. At Rs 12 million per toilet block of 20 seats, Rs 5 billion would be required. Even for 4 million slum dwellers having some sanitation

facility, proper facilities are needed to push usage from the present twenty five to one hundred percent. The renovation of existing toilets would cost another Rs 3 billion. If the city's slum population were to increase by five percent in a year an additional 400 sanitary blocks would be required at a cost of Rs 480 million.

Donors have the funds, but it is cooperation by the authorities that is the constraint. Sulabh International has a proposal for toilets along the eastern and western highways with multi-agency donors offering Rs 10 billion collectively. The sites are not getting cleared for various reasons. Citizens should insist that the sites should be given on lease to overcome the problem of free land and the scheme should be opened to NGOs and CBOs. Citizens need to take active role to push the authorities into taking decisions. They can file public interest litigation (PIL) case against the MCGM, as every citizen has the right to know plans, the right to protect him/her from environmental degradation and take required actions to improve the situation in their community (Burra, 2005). In other words, more transparency and accountability is required to state and non-state engagement.

6.5 Mumbai's comparator variables and case studies

Primary and secondary evidence from Mumbai reveals a history of marginalized municipal development. A centralized state level of government bearing the impressions of colonial rule and elitism has persistently neglected the needs of municipal service delivery actors. The absence of political representation, intergovernmental support and insufficient pro poor initiatives points to continued neglect by the national and state government elites and elected officials. However, in country research has revealed the prominent role of one comparator variable in extending service delivery to informal settlements. Civil society and donor activity has countered the inertia and barriers presented by national and state level interests, by facilitating the engagement of informal settlements and representative CBOs with lower tier state actors such as the MCGM. The persistent lobbying, knowledge sharing and relationship building with MCGM officers by community based actors (SI, SPARC and the CBOs) has led to efforts at supplying water and facilitating sanitation services. What is missing, is the accountable and transparent operations of an autonomous water and sanitation service delivery provider. Evidence points to a capital intensive, top down state structure that neglects the operational and maintenance needs at the site level.

The influence of this comparator variable is also illustrated in the two case studies. Outcomes from *Dadar TT* and *Dharavi* reveal the driving role that service delivery facilitating NGOs (SI and SPARC) play in engaging socially mobilized CBOs and extending service delivery. In *Dadar TT*, technical assistance from the NGO (SI) in toilet block site design and construction is critical to maximizing usage. SI also trains a local CBO to operate and maintain the block, which in turn, ensures that the service delivery infrastructure is sustained. Calls by SI and CBOs to replicate site specific designs and models are met by state government funding and top down planning which applies 'one size fits all' solutions to arbitrarily selected sites and contractors. The result of involvement by upper tier actors and elected officials is capital intensive project frameworks and scopes that sideline operations and sustainment considerations. In *Dharavi*, technical assistance and design by the local NGO (SPARC) has led to sustainable solutions and CBO maintained toilet blocks. However, the absence of a lower tier water and sanitation services provider has disabled efforts to replicate this model across the slum. The absence of lower tier representatives through which to engage in community based planning, has allowed the persistence of state government led, top down development plans. These inevitably cater to developer interests and forced evictions. Findings from Mumbai reveal the relationship between service delivery extension and a mobilized civil society.

7 Analysis of Research Findings

First, I should point to the difficulty of obtaining information in all of the three mega cities, as public sector activities and state reports, particularly at the municipal level, are not regularly published or readily available. This lack of access to information illustrates the absence of intergovernmental support, accountability frameworks, and transparent reporting mechanisms between upper and lower tier state actors which hinders service delivery (see Table I in the next subsection). I had to work around these hindrances, and was able to obtain a number of research studies and project reports from the data repositories of civil society actors (ranging from the smallest CBOs to the largest multilateral donors), subject matter experts (consultants who themselves are ex-bureaucrats, civil society actors or academics) and technical donors. Second, my travel to Mumbai was constrained due to visa restrictions on people of Pakistani heritage from travelling to India. As a result, I was unable to obtain government approval to travel to Mumbai and collect primary and secondary data. Thanks to the assistance of regional NGOs with whom I have established long-standing relationships, I was able to contact relevant state and non-state actors in Mumbai and conduct interviews via telephone. I was also able to meet with several state and non-state actors from Mumbai during regional workshops and conferences in Karachi, Lahore, Islamabad and Dhaka. Through these meetings, I was also able to obtain secondary research and discuss case study information related to successful and unsuccessful service delivery outcomes specific to Mumbai. The implementation of my study methodology was inhibited by the complex and opaque political and administrative settings in all three countries. However, a history of relationship building and shared research projects with South Asia's most technically proficient, grass-roots based and research oriented non-state actors allowed me to compile and compare data, and draw unique insights across the different municipal service delivery contexts.

Among the most valuable contributions of this study are the three pairs of case studies that I documented in each mega city. I triangulated case study evidence on the roles played by state and non-state actors by grouping comparator variables from both primary and secondary sources. Process tracing was used to detail the events that led to successful and unsuccessful service delivery outcomes. As I have explained in earlier chapters, successful service delivery outcomes were defined as cases where water and/or sanitation infrastructure was planned and constructed after which service delivery was extended to the informal settlement by state actors. Successful outcomes were also characterized by some level of formalized cooperation between state and non-state actors and evidence of sustained

service delivery to informal settlements and inhabitants. Unsuccessful service delivery outcomes were defined as cases where water and/or sanitation infrastructure was planned, but not constructed or extended to informal settlements despite the efforts of state and/or non-state actors. By documenting these outcomes (see section 7.1.1., Table 1), I was able to conduct a comparative analysis of influencing variables across each of the service delivery settings. Furthermore, by engaging with 'on the ground' NGOs and CBOs, I was also able to gather context-specific information about service delivery outcomes.

Analyses of data from each of the three mega cities revealed a range of tensions between state and non-state actors, all of which influenced service delivery. Triangulation of comparator variables revealed the root causes of these tensions: all three 'unplanned' mega cities have experienced continual social and economic stratification. The creation of well-planned and sufficiently serviced enclaves for the ruling class are in glaring contrast to the squalor and neglect of informal settlements and poor neighbourhoods which struggle to survive. The divide between rich and poor has widened due to private developer influence, market-oriented policies and other forces stemming from neoliberalism. Similarly, gaps across state and society have persisted as service delivery machinery (water and sanitation utility) continues to be underfunded. The combination of neglect and interference by elected officials, absence of intergovernmental relations (concentration of decision-making power with the bureaucracy's upper tiers), and badly implemented 'pro poor policies' (which usually result in benefits being captured by higher income groups) reveals the inability of 'the state' to provide for all citizens. The absence of accountability and transparency mechanisms results in the exploitation of services by corrupt state actors and organized crime. As evidenced by my research, many of these actors and interests gain political and economic power at the expense of the lower tiers of the state. For instance, market facing policies and other instruments of neoliberalism have enabled elites (including upper-tier state actors) to assume positions of power within the state. Once established, they maintain their positions by appropriating public resources (land, water, public funds) for personal profit and charging weaker segments of society who now struggle with scarcity, for insufficient services. Despite this disabling environment, civil society research and advocacy efforts have successfully linked the needs of informal settlements with the capabilities of lower tier water and sanitation authorities. The result has been an increase in civil society mobilization of informal settlements and community based development from the 'bottom up' to demand services. Let us now discuss the influence of comparator variables on service delivery.

7.1 Influences of Comparator Variables

The influence of each of the comparator variables (political representation, intergovernmental support, pro poor initiatives, accountability and transparency, and donor/civil society activity) on service delivery outcomes in each of the three mega cities represent the range of neoliberal forces that converge on informal settlements. The conditions that result from the pervasiveness of neoliberalism, contribute to almost identical outcomes in each of the water and sanitation service delivery contexts.

My research revealed that elected officials and upper tier state actors are not inclined to advocate for service delivery to informal settlements. In each mega city and case study, elected officials (national and state/provincial level) exhibited persistent neglect when approached by non-state actors to extend water and sanitation services to informal settlements. In fact, non-state actors in Karachi, and informal sector workers in Dhaka and Mumbai, alleged that elected officials benefit from the status quo, where a culture of ‘votes for services’ prevails. What happens is that the party (individual) in power withholds services to communities until local votes are mobilized which ensures that the local representative is elected. This ensures the dependency of informal settlements (and informal sector workers) on political actors. Although elected officials and upper tier state actors visited informal settlements during election campaigns (specifically *Korail basti and Dharavi*), their promises of service delivery and basic necessities remained unfulfilled. Other upper tier state actors such as development authorities (e.g., Karachi Development Authority (KDA), Mumbai Municipal Redevelopment Authority (MMRDA), and Bangladesh State Development Authority (RAJUK)) have also operated in an opaque manner, by withholding development plans and excluding informal settlements from development decision making¹³⁹. The concentration of planning power in small, secluded groups of upper tier state actors, obscures already weak accountability mechanisms. These development authorities also overlook the operating challenges facing lower tier actors. In contrast, these development authorities cater to the large projects and planning cycles of private developers and elite backers, despite the failure of most large projects and

¹³⁹ The KDA for example, does not facilitate or coordinate development policies with other municipal departments and agencies such as the KWSB. It does not consult with state departments or communities who could be affected by development plans.

consequent waste of funds¹⁴⁰. The collective neglect of these elected officials and upper tier actors has permitted the exploitation of service delivery mechanisms (and informal settlements) by criminal elements. I will return to the implications of criminal activity later, now that we can see the harm that is done by upper tier actors on both informal settlements and lower tier state actors.

Unsurprisingly, elected officials and upper tier state actors across each of the mega cities have been unwilling to implement legislated land reforms or secure the tenure of informal settlements. Secondary research from each national policy context revealed at least some recognition/mention of informal settlements (slums, *basti*, *goths*, *katchi abadis*, or low income areas) in policy development discussions and legislation. However, evidence from each case study revealed the inability of elected officials and upper tier state actors to resolve jurisdictional land disputes (e.g., *Ghazi Goth*, *Korail Basti*, *Dharavi*) or resolve repeat development claims (e.g., *Kalyanpura Basti*) in favour of informal settlements. Many political actors were actually involved (directly or indirectly) in the manipulation of already weakened policies and departmental mandates to ensure their continued illegal appropriation of public land for personal gain. Represented by sophisticated networks of oppressive slum lords (*mastaans*) and neighborhood thugs (e.g., *Ghazi Goth*) party leaders and upper tier political actors (i.e., *Dharavi*): have been able to extract rents and utility services (water, gas and electricity) from informal settlements. Weak policy frameworks have permitted the proliferation of criminal activity.

Pro poor initiatives, such as affordable housing programs, slum upgrading policies, and resettlement plans have experienced limited success as they have been characterized by a culture of 'policy formalism.' Each of these initiatives emerged from intense lobbying by NGOs, CBOs and representatives of informal settlements. Across each of the mega cities, non-state actors (SKAA in Karachi and SPARC in Mumbai) actively lobbied the state for policies and programs to provide shelter. However, once the policy agenda setting stage began, upper tier actors ignored the requirements, needs analysis, and

¹⁴⁰ In many instances, the waste of funds has been attributed to over payment of contractors, siphoning by project managers and consultants and kickbacks to state actors for awarding contracts to preferred bidders. In the past, critics of such large projects attributed wastage to the larger multilateral donors who benefitted from demonstrating projects being initiated and funds being deployed, as part of the 'trickle down' model of economic stimulation. My findings illustrate that the waste attributed to such an approach is more complicated. While a discussion of 'waste' of funds is a broader discussion that deserves more perspective, I merely raise the point here to illustrate that project failure is allowed to persist, regardless of the driving forces, with the costs contributing to already staggering debt levels.

research of these representatives (SPARC, *Amrao Manush*, and SKAA). Over time, poorly conceived agendas were followed by weak formulation, because consensus building excluded relevant stakeholders. Generally, it was the development lobby who was engaged (rather than representatives and advocates for informal settlements) and benefits were captured by higher income groups. Poor intergovernmental support led to ineffective resource allocation: politically motivated initiatives are time-bound and do not receive sustained levels of funding. When the final resettlement plans emerged from the poorly conceived policy process, non-state actors were forced to silence protesters and essentially acquiesce to resettlements plans (SPARC in *Dharavi*) and in turn are quickly blamed for policy failures. Many critics have accused these non-state actors of 'selling out' informal settlements, but my evidence revealed that they are merely another victim of poor, one-sided policies and a culture of policy formalism. Furthermore, where their programs are effective (*Amrao Manush* in Dhaka), upper tier actors fail to support their efforts.

Primary and secondary evidence across each of the mega cities and informal settlements (*Korail Basti*, *Ghazi Goth* and *Dharavi*) pointed to the illegal activities of local power brokers (providing illegal services) serving as fronts for upper tier state actors and elitist 'network partners.' Residents of Karachi, Mumbai, and Dhaka commonly referred to the role of the 'water tanker mafia' and collusion between organized crime and elected officials. As noted, upper tier actors (including elected officials and bureaucrats) were often landlords of illegal developments and/or linked with '*mastaans*,' the 'land mafia' and 'slum lords' who retain power and extract rents from informal settlements on their behalf. The failure of intergovernmental support has resulted in the proliferation of these criminal networks and the continued appropriation of public resources, such as Dhaka's water pilferage networks, Karachi's illegal hydrant and tanker mafia (permitted and profited from by military officers), and Mumbai's slum lord appropriation of toilet blocks. This has perpetuated the reliance of informal settlements on illegal providers of water, at 10–15 times the public water tariff.

Despite the indifference of state actors, non-state actors have diligently exposed and disentangled, where possible, administrative constraints to extending service delivery. Persistent relationship building and meticulous documentation by non-state actors has made opaque government processes more transparent and in turn, facilitated the extension of service delivery to informal settlements. Alternative service delivery models have experienced success where technocratic NGOs and donors have assisted in the education and mobilization of CBOs. Successful outcomes have also been realized as NGOs and CBOs

engage lower tier service delivery actors through project management parameters. For example, non-state actors (*Sulabh International*, SPARC) have demonstrated that service delivery solutions are more likely to be successful if community-based actors are included in design and sustainment planning.

In contrast, success is constrained when the state does not recognize non-state efforts and continues to cater to market interests (land developers) and other neoliberal forces. For example, the Amrao Manush shelter program (Dhaka) provides pavement dwellers with access to a range of health and education services. Despite its documented success, the donor-dependent program has failed to grow beyond eight independent centres, due to developer-influenced mandates of upper tier state actors and the absence of intergovernmental support. Similarly, when the SKAA program leadership migrated from the province (Sindh) to the municipality (Karachi), upper and lower tier state actors were hesitant about formally recognizing 'one window' service delivery models as effective vehicles for allocation of state lands for poor, homeless migrants. They have also dismissed the successes of progressive programs, such as the Dhaka WASA low-income wing that facilitates services to slums through CBO and NGO engagement. SAIBAAN's reach (as well as that of the KWSB) has thus been hindered by the lack of political will to challenge neoliberal policies and provided the necessary intergovernmental support. Together, the evidence points to the need to increase autonomy of lower tier state service delivery providers in order to counterbalance market actors and other forces stemming from neoliberalism.

7.1.1 Case Study Illustrations

The case studies that I have undertaken lend further support to my research findings as well as illustrate the underlying success and failures of each case (see Table 1 below). My case studies illustrated the enabling role of lower tier state and non-state actors in extending service delivery. For instance, when faced with eviction, informal settlements mobilized and became politically active in engaging state actors, demanding recognition (*Dost Muhammed Jungar Goth, Kalyanpura Basti*). This resulted in incremental progress towards service delivery. Similarly, when sanitation services became so dilapidated, informal settlements rallied behind NGOs for community designed and managed solutions (*Dadar TT*). Once engaged, municipal officers at the lower tiers eventually supported non-state efforts by facilitating service delivery to all informal settlements. The degree to which these efforts were supported ranged from informal cooperation (KWSB and OPP in *Ghazi Goth and Dost Muhammed Jungar Goth*) to formally recognized support and documented agreements (DWASA and DSK in *Kalyanpura Basti and Korail Basti*). Lower tier actors have responded favorably to the provision of

‘information assets’ by non-state actors by incorporating them into decision making. In all cases, the syntheses of social maps (DSK), physical maps, and surveys (OPP and SI) by non-state actors has made up for the absence of official maps, departmental plans, and state surveys¹⁴¹. In some cases, upper tier state actors appropriated the social capital, trust, and relationship-building established by non-state actors (SPARC).¹⁴² Finally, the cooperation of state and non-state actors in service delivery extension, from the design to sustainability, has contributed to improved service delivery (OPP, DSK, and SI).

Case studies also revealed a number of barriers associated with upper and lower tier actors. As discussed above, political actors and elected officials had not engaged with any of the communities under study. This widespread neglect revealed a preference for the status quo and ‘votes for services.’ Many elected officials were implicated in land ownership disputes at the individual and institutional levels (*Korail Basti, Kalyanpura Basti, Dadar TT, Ghazi Goth*). Many upper tier state actors have also been alleged to have appropriated public land themselves, for personal gain. Intergovernmental support has been lacklustre in most cases: the lack of clear jurisdictional lines between upper and lower tier actors has prevented the support for and extension of services to informal settlements (*Ghazi Goth* and *Korail Basti*). This has permitted organized crime (a front for the above mentioned upper tier state actors), and has also contributed to evictions of informal settlements and death threats against community actors (*Ghazi Goth, Dost Muhammed Jungar Goth, Korail Basti, and Kalyanpura Basti*).

Table 4 summarizes the conditions in each successful and unsuccessful case study. Certain variables (political representation, intergovernmental support, pro poor initiatives) appeared not to be linked with positive influences on service delivery outcomes, while others (accountability and transparency, civil society activity) were consistently linked to successful service delivery outcomes.

¹⁴¹ In many instances, state actors simply do not gather data at the municipal level beyond time bound studies contracted to consultants and donors. Where data is available, it is out of date or largely inaccurate. State actors will criticize the records of non-state actors in the same way, but there is little evidence of reliable state owned data, in any of the three mega cities, that has been the basis of service delivery extension to informal settlements. In the case of Karachi, even the master plans that have been proposed for large scale sewage projects have been drafted by non-state actors such as the OPP RTI.

¹⁴² Whether these plans were successful or not (resettlement plans in the case of SPARC) is of great debate across the development literature. My research notes that SPARC has unfairly shouldered the blame for poorly managed resettlement plans due to the political economy of policy development and concentration of power at the upper tiers of India's state governments.

In each pair of case studies, three variables exhibited similar effects on service delivery outcomes. Political representatives demonstrated neglect for informal settlements while intergovernmental relations revealed little, if any support for municipal service departments. Similarly, pro poor initiatives remained ineffective in reaching target recipients. Evidence specific to two variables, accountability and transparency as well as civil society activity revealed their influence on service delivery. Where the public utility demonstrated some level of accountability and transparency in cooperating with civil society NGOs and CBOs, in extending services to informal settlements, positive outcomes resulted.

Table 4 Summary of Successful and Unsuccessful Service Delivery Outcomes

City	Successful	Unsuccessful
Dhaka	<p><i>Kalyanpura Basti</i></p> <ul style="list-style-type: none"> - Accountability and Transparency: Autonomous utility managers, formalize cooperation with NGOs and CBOs in order to share infrastructure and extend service to lower income users. - Civil Society Activity: Persistent NGO engagement of the public utility coupled with ongoing CBO capacity building led to rapid resettlement 	<p><i>Korail Basti</i></p> <ul style="list-style-type: none"> - Accountability and Transparency: Utilities are unable to engage NGO and CBO infrastructure plans due to the lack of due process and delegated authority by upper tier state actors. - Civil Society Activity: NGO engagement of public utility was ad hoc while trying to mobilize a large, diverse group of community members
Karachi	<p><i>Dost Muhammed Jungar Goth</i></p> <ul style="list-style-type: none"> - Accountability and Transparency A weak utility utilizes the informal maps of a well mobilized CBO and technical NGO to extend infrastructure. - Civil Society Activity: Well-resourced CBO mobilizes its constituents with NGO facilitation and engages public utility 	<p><i>Ghazi Goth</i></p> <ul style="list-style-type: none"> - Accountability and Transparency: Service delivery infrastructure to the settlement remains inactive due to lack of approval from upper tier actors. - Civil Society Activity: NGO provide technical support to a mobilized, resilient CBO despite threats from upper tier actors.
Mumbai	<p><i>Dadar TT</i></p> <ul style="list-style-type: none"> - Accountability and Transparency: A frustrated municipality contracts service provision and sustainment to the CBO. - Civil Society Activity: NGO mobilizes CBO to design, construct and operate a toilet block with sustainment and community considerations in mind. The block continues to be operational. 	<p><i>Dharavi</i></p> <ul style="list-style-type: none"> - Accountability and Transparency: State actors ignore the advice of CBOs and NGOs to adopt site specific arrangements for sustainment. - Civil Society Activity: site specific NGO and CBO considerations are sidelined by upper tier actors (and pressure from organized criminals) and larger, unsustainable project scopes.

The case studies clearly revealed that exploitation of informal sector labourers by capitalists continues unabated. The informal sector represents a hyper exploited segment of society, reminiscent of the exploitation experienced by the peasantry at the hands of rural elites and capitalists in years past. As I mentioned in the introductory chapter, a comprehensive exploration of the relationship between capitalism and the informal sector is beyond the scope of this analysis. Nevertheless, the human development implications resulting from the spread of neoliberalism must be recognized. Case studies revealed a threshold of cooperation between lower tier state and non-state actors that permits the extension of services to informal settlements. For instance, Dhaka's DWASA ensures that clear roles and responsibilities are understood and adhered to by lower tier actors, NGOs, and CBOs. This has led to service delivery connections and engagement of informal settlements (*Kalyanpura Basti*). In contrast, Karachi's KWSB is tied to intergovernmental tensions while Mumbai's water and sanitation department is bound to an inefficient municipal corporation. In these latter mega cities, there are no clear lines of accountability, transparency, or engagement between state actors and informal settlements, and utility staff members are constrained from carrying out their basic duties.

The combination of misaligned departments, legacy administrations, and gaps in weak policy frameworks provides opportunities for collusion and exploitation by elitist interests. This is the case across all three mega cities, where lower tier departments with little support, limited alignment and overlapping mandates continue to operate inefficiently and in some cases, ineffectively. This dynamic is another outcome of neoliberalism, which continues to direct upper tier state resources towards the market, accusing the lower tiers of being incapable and incompetent. For example, upper tier state actors and planning authorities tend to embrace large capital projects without appreciating operating and sustainment concerns. Once maintenance functions are transferred to lower tier departments, projects inevitably fail due to the lack of resources. Against the backdrop of failing infrastructure, informal settlements are forced pay exorbitant prices for illegally supplied services. In contrast, networks of elite neighbourhoods leverage their upper tier lobbies to navigate the 'iron mesh' of intergovernmental procedures and secure services. So, while informal settlements struggle with broken public services, elites obtain services to meet their needs. While the lower tiers struggle with addressing the demands of an impatient public, options for private sector participation are pushed by the upper tiers, without resolving the lack of resources and operational autonomy that constrains lower tier state actors. In order to remedy the vicious cycle of public service deterioration, lower tier departments such as the KWSB and 'Mumbai works' are in urgent need of institutional disentanglement and autonomy

from the political interests of upper tier state actors. Without autonomy, large, unsustainable capital projects will continued to eclipse operational concerns, driving public utilities to ruin. Alternative service delivery solutions (SKAA 'One Window', DWASA 'NGO models') will remain celebrated, yet isolated pilot projects.

7.2 Key Findings and Emerging themes from mega city analysis

In light of the comparator variables and case studies, a number of key findings emerge from my study, which directly engage the research questions presented in the opening chapter. First, upper tier state actors continue to demonstrate a lack of will and even capacity to engage the human development needs of informal settlements in large mega cities across South Asia. Second, autonomous, lower tier state actors have been found to be better suited to engage civil society to enable human development, as compared to their upper tier state counterparts. Finally, mobilized informal communities can move the state – corruption and all notwithstanding – to respond to their service delivery needs. CBOs have a significant role in influencing NGOs and lower-tier state functionaries into action with NGOs demonstrating benefits the benefits of cooperation for all parties. My analysis of comparator variables and case study outcomes elaborates on these findings through five important central themes that emerge in terms of service delivery to informal settlements in mega cities in developing countries: (1) Precariousness of informal settlements; (2) Colonial legacy in urbanization and post-colonial realities; (3) Success and failures of community based mobilization; (4) Need for decentralized governance models; and (5) The growing rural-urban divide and the absent state. I will now expand on these themes in the remaining sub sections.

7.2.1 Precariousness of Informal Settlements

Evidence from all three mega cities illustrates the precarious condition of informal settlements. The absence of land tenure, state supports and basic services has made habitation difficult to begin with. The lack of sufficient water and sanitation facilities intensifies precariousness by forcing informal sector workers, particularly poor women, to travel great distances (and risk harassment and assault) to find a hand pump or working toilet. As more displaced rural labourers join the mega city's informal sector and struggle to find employment, population density, poverty and service scarcity spread across these communities.

Those who are able to find habitation in these settlements, face exploitation by organized criminals and networks of elites. For instance, land rents are extracted by criminals for occupancy in the informal settlement, the land of which is usually owned by elites. Protection money is also paid to local gangs to fight off rivals who represent other elites looking to expand their territory in a lawless, urban context. Utility rents are paid for the illegal connections to water, sanitation and power lines, as services are already in scarce supply. This intensifies precariousness for the most marginalized, as discussed earlier. This is in addition to the 'votes for services' as outlined earlier. This situation is further complicated as adjacent, higher income communities grow fearful that increases in informal settlement demand will reduce supply to their neighbourhoods (*Korail Basti, Dost Mohammed Junjhar Goth*). Poorly formulated upper tier policies rarely buttress lower tier programs and services, leave alone engage recipient communities such as informal settlements. Such 'policy isolation' leaves informal settlements in a state of lawlessness.

A wide range of socio economic groups, representing various ethnicities and vocations make urban informal settlements their home. The diversity of employment types is mirrored by the variance in earnings: income groups in these settlements range from the 'moderately poor' to the 'extremely poor' (MUH HDC, 2007). The 'moderately poor' include merchants, rickshaw drivers and cottage industry owners while the 'very poor,' include labourers, garment workers, and spare parts and raw materials suppliers. The 'extremely poor'¹⁴³ include day labourers, garbage collectors, recyclers, home workers, and food suppliers: they have no assets and are often homeless. The economic activities of these groups form sophisticated supply chains and networks, the study of which is beyond the scope of my research. However, it is important to note that marginalization of any one group, will have negative consequences for the others. For instance, if raw material prices are kept low, informal sector workers have less to pay for services such as food and transportation, which would inject money into other parts of the informal settlement. Inevitably, as the mega city grows, so do the ranks of the informal sector as well as the numbers and complexities of informal settlements.

¹⁴³ Some CBOs and NGOs such as DSK and SPARC refer to this group as the 'hard-core poor', who have no social or economic assets and are the most vulnerable to shocks.

In all three municipalities many precariously employed informal sector workers are the sole income earners for their households and/or for making remittances to home villages. As discussed, a significant proportion of their income is extracted by rents which diverts income away from human development efforts such as accessing education and health care. They have no security in terms of employment: their 'contracts' can be terminated at a moment's notice, which places them increasingly at the mercy of their employers. Home based work is also precarious both economically and environmentally. In addition to retail storefronts and other cottage industries, informal settlements are home to recycling 'garages', where plastics, tin, aluminum and other materials are separated for resale. These recycling 'garages' are hubs for informal waste collectors (often referred to as 'scavengers' or 'street sweepers') who collectively, provide the mega city with garbage collection service, and helps ensure that household and industrial waste is disposed of. In turn, these recycling 'garages' provide industry with an inexpensive source of raw material. Unfortunately, the lack of organization of this sector is exploited by industry, who exert downward pressure on raw material prices. This unorganized sector also absorbs the hazards of the recycling occupation and levels of pollution and hazardous materials are far above average in these areas. For example, recycling hazardous materials such as electronic waste leads to increased toxic waste, which can be deadly even in trace amounts. Thus, labourers engaged in the collection, processing, and supplying of recycled raw materials face risks and levels of self-exploitation. I will return to this term later, but mention it here to show the relationship between precarious settlements and the self-exploitation of informal sector workers.

The most marginalized informal sector labourers are subjected to the most precarious employment and self-exploitation. Pavement and informal settlement dwellers are often migrants who have recently arrived from rural areas in search of employment. Most have brought or used all of their savings and must generate more before returning to their villages and/or supporting other hopeful migrants. They are often at the mercy of previous migrants and the opportunities that they have created: those without kinship or ethnic ties in the settlement must take or 'make' whatever employment opportunities exist. It must be recognized that a mutually reinforcing relationship exists between the formal and informal economies, with the latter continuing to occupy public land out of necessity, until rising land values prompt the former to conduct forced evictions, increasing the patterns of urban displacement. The result is precarious employment and a pattern of self-exploitation: many of the new migrants collect waste or scavenge, providing larger recycling firms with recoverable metals, glass, and other raw materials. As downward pressure continues to be applied on wages by capitalists they have no choice

but to work longer hours to earn a living. Many are employed by urban capitalists, whose sprawling mansions and local economies entrench social and economic divides along class lines. The concentration of labour surpluses in isolated spatial contexts will continue to lead to new hierarchies of informality outside the jurisdiction of the state. Without recognition by state actors and the extension of service delivery, informal settlements will continue to be treated as pools of surplus labour ready for exploitation by neoliberal forces with little support for human development. In turn, complex forms and patterns of self-exploitation will continue to be replicated across the mega city.

7.2.2 Colonial legacy in urbanization and post-colonial realities

The second theme that emerged from the findings is the relationship between South Asia's colonial legacy and urbanization. The effects of this relationship have persisted and are part of the post-colonial reality of South Asia's mega cities. It is clear that the marginalization of informal settlements is implicitly linked to issues of state and development, and is rooted in forces dating back to colonialism. In all three mega cities, settlements have been established along class lines. During the peak of the British Empire's reign over India and South Asia, colonial rulers ensured that their officers and members of the ruling class were housed in well-built and established enclaves in each city. These communities were well planned and distinguished by paved roads, street lighting, public facilities, and water and sanitation infrastructure. Native administrators, groomed from the local elite, also enjoyed above average facilities and services, albeit not as comfortable as their colonial masters (S U Ahmed, 2010). Nevertheless, their quarter of the city benefitted from better planning and service delivery. The lowest tiers of society, the colonized underprivileged masses, were left in the squalor of poorly built shelters with minimal services, if any at all. Colonialism and the entrenchment of neoliberal forces have contributed to the further exclusion, neglect, and marginalization of these informal settlements.

Evidence of the colonial legacy appears in the differences between upper and lower tiers of state and society and the social and economic contexts. During the post-independence period, upper tier planning and lower tier management tensions grew, further polarizing service delivery along class lines. As the wealthy 'Indian elite' entrenched themselves in larger colonial era homes and newer, well planned developments, they maintained access to lower tier state services. 'Iron networks' formed between upper tier state actors, wealthier urbanites, power brokers, developers and organized crime. These groups quickly exploited public goods and resources, concentrating wealth in the upper tiers of society,

much in the same way colonial rulers did. The result has been the appropriation and concentration of public goods and wealth in the hands of the urban elite. In the absence of resources and 'support' from upper tier state actors, lower tier state actors have been overwhelmed by day to day service delivery challenges. Many lower tier state actors have been reduced to serving the needs of the urban elite, much in the same way that 'native administrator' did, during the period of colonial rule. A culture of patronage influenced priorities combined with non-existent intergovernmental support has permitted the weakening of municipal institutions and public departments. The informal settlements, home to a significant proportion of the informal sector have become further marginalized. Evidence of polarization between state actors influences our understanding of the state. Namely, that the critical infrastructure upon which basic services rely; are not within the interest of the upper tiers of the state to maintain and develop. Rather, although the lower tiers are marginalized and under resourced, their engagement is critical to the resuscitation of basic service delivery for the urban poor and informal sector. More examination of the shared ownership of public infrastructure is needed in the municipal scholarship, to offset current understandings of state and non-state interactions.

It must be noted that the polarized planning of developing country cities differentiates the former colonized state from the western state. While colonized states remained largely unplanned through their critical development periods, western states have enjoyed at least basic levels of infrastructure investment and planning. Much of the unplanned infrastructure development in post-colonial states and cities was performed by informal sector labour under the leadership of western rulers and contractors. The capacity to plan, operate, maintain and govern the 'built infrastructure' departed the region once colonial rulers left. What remained was a dichotomy between upper and lower tier state actors which has persisted to this day. This polarization has quickly grown into the hegemony of the elites vs. the rule and services of the people. Leadership of the urban elites has quickly consolidated the interests of the educated, privileged class, which has also spread to non-state actors. Agency at the local government level should create a progressive and engaging policy and program space within the context of South Asia's mega cities, where street level bureaucrats and representative advocates of service delivery to all urban citizens can resuscitate public goods and service delivery infrastructure. The post-colonial city continues to struggle with ad hoc solutions to urban planning challenges, rooted in the relationships of colonialism. In the midst of these challenges, the supply of low wage informal sector labour has provided the post-colonial city with ad hoc services ranging from solid waste collection to utility servicing and transportation. This supply has allowed upper tiers state actors to avoid dealing with the

realities of urban decay and deteriorating service delivery levels. As a result, despite the efforts of multilateral organizations, donor driven development and private sector interests, equitable development has not materialized in South Asia's mega cities. As the elitist colonial structure was assumed by the local elite, the deterioration of public infrastructure continued unabated. So, as neoliberal policies (which I will return to discussing in the final thematic sub-section) have permitted the maintenance of infrastructure along class lines, we cannot consider planning and operational sustainment in the same way as we do in the western state.

Finally, the colonial legacy is reflected in the growing rural-urban divide. Since colonial rule, urban centers across South Asia have experienced expansion and contraction as part of shifting concentrations of political and economic activity. Since the advent of market led globalization, South Asia's urban economies have been at the fore of neoliberalism inspired policy making. Upper tier state actors have encouraged the continued, relentless expansion of urban economies while neglecting rural development, thereby driving rural to urban migration. As these neoliberal policies are largely market facing, they offer no support to migrant workers nor incentive for their return to rural heartlands. In essence the fact that rural displacement leads to urban marginalization is a direct consequence of the lack of attention to rural peasants, a legacy of colonial rule. This continues into the present, as South Asian states have not given sufficient policy attention to the development of a coherent rural development strategy and instead, benefit from the surplus provided by informal sector workers.

7.2.3 Success and failure in community based mobilization

In all three mega cities, certain CBOs have been mobilized by technically knowledgeable NGOs and educated to advocate for services from lower tier state actors. Working together, these CBOs and NGOs have sought to resuscitate lower tier state capacities and make service delivery more equitable across the mega city. This is in contrast to the view that non-state actors (NGOs primarily) are part of the neoliberal agenda and are seeking to 'substitute' for the state, and pave the way for the privatization of public services. I do not deny the constraints placed on development by the 'iron triangles' of market, state and development sector actors. Due to insufficient resources, I have avoided the problematization of upper and lower tier non-state actors. While the critical literatures provide ample insights into the negative influence and 'substitution effects' of civil society, there is still space for representative civil society actors. Deeper analysis of cross case study evidence suggests that variables related to the substitution effect are much more complex than current debates submit. For instance, at one level, case

study evidence reveals that the neoliberal agenda benefits from having NGOs substitute for state led service delivery and absorbing the blame for negative outcomes of myopic upper-tier state development activity. This is certainly the case in Mumbai where NGOs such as SPARC have implemented slum resettlement plans on behalf of state actors amidst community protests and criticisms of elitist land development. Similarly, case study evidence also reveals that neoliberalism spreads from the outsourcing of underfunded public services to the informal sector. This pattern of 'off-loading' can be found in each of the mega cities where waste collection is carried out by the informal sector and/or NGO subsidized market (albeit informal) forces. Waste collection never recovers in these cases and the market benefits from depressed levels of raw materials and the expansion of informal supply chains which feed the formal sector.

Conversely, research also shows that lower-tier functionaries have offset the agendas of upper-tier state actors by demonstrating service delivery effectiveness by partnering with non-state actors. Lower-tier functionaries are dependent on the success of CBOs and NGOs, which have enabled lower tier state actors with information assets which are key components of infrastructure extension (social maps, infrastructure surveys, local level plans and neighbourhood design documents developed through community outreach, education, social mapping, and internal infrastructure surveys). For example, Karachi's OPP RTI has long maintained engineering maps and drawings that detail the topography, density, and flow paths of sewage and storm water. Not only does the OPP RTI have a comprehensive collection of community and neighbourhood maps, it also maintains inventories of municipally drafted plans and maps. These documents are vital sources of information for lower tier state functionaries, who in many instances are not engaged by upper tier state actors in the approval, design and implementation of infrastructure plans. No doubt, many informal settlements have benefited from the clarity provided by such artefacts, permitting the extension of service delivery infrastructure. Nevertheless, market actors have also harnessed the momentum of such cooperation to obtain services. For example, in Karachi, the resources of market facing CBOs (representing the interests of small and medium sized merchants no less) facilitated service delivery extension faster than any other OPP RTI case study on record. This is yet another facet of the neoliberal agenda where market forces adopt the guise of CBOs to better their position in a competitive urban economy. OPP RTI's retention, updating, and distribution of these maps that link large city pipes with community distribution networks has been a valuable resource for engagement with state and non-state actors. Evidence from my research on the

different roles and responsibilities of upper and lower-tier state as well as non-state actors reveals the complexities surrounding the substitution effect.

Once mobilized, CBOs and their informal settlements have built on service delivery success by expanding their capabilities to include other social services. In many instances, they have returned to their NGO counterparts with requests for assistance to initiate other programs such as education and health. Both DSK and OPP have received repeated requests from numerous CBOs for assistance in expanding hygiene education programs to part time and full time education facilities (Dhaka WASA *Kalyanpura basti*, OPP RTI *Dhost Mohammed Junger Goth*, SPARC - *Dharavi*). The result of repeat requests and open communication has been the establishment of community development networks, where knowledge sharing on state engagement is facilitated in all three mega cities. When formalized relations have been developed between state actors and the civil society community, it has generated multiple benefits, beyond simply facilitating the integration of informal settlements into the formalized service delivery network (Dhaka WASA-*Korail basti*). Non-state actors have also demonstrated prowess in the mobilization of lower tier state actors in areas such as housing/shelter and solid waste management.

The success of community self-help networks and the role of non-state actors in service delivery has shown potential, particularly in the case of Dhaka WASA, when lower tier actors are engaged early in the development of alternative service delivery models. The missing policy instrument is formalized relationships (i.e., *Letters of Intent or Memorandums of Understanding*) between lower tier state and non-state actors. These instruments are missing in the policy frameworks that guide state and non-state interaction (KWSB in Karachi and the MCGM in Mumbai). The absence of this kind of instrument can be attributed to the technical complexity of water and sanitation service delivery, as well as the political variants of the comparator variables mentioned above. Increasingly isolated water and sanitation service providers are less inclined to engage with non-state actors given the lack of authority, incentives, and mandate that they have been provided with.

In Karachi there is little evidence of formalized engagement of state actors with non-state actors. This has constrained the success experienced by the OPP RTI. The KWSB claims that a low income wing actively engages *Katchi Abadis and Goths*, but the reality is that the mapping, surveying, and construction of infrastructure has been facilitated to a large part by the OPP RTI and its community development network. Many non-state actors have questioned the KWSB's claim that sufficient supply is provided to informal settlements. Interviews with state and non-state actors yielded different

accounts of service support and billing issues. Undoubtedly, there is potential for cooperation between the KWSB and representative CBOs, but the will to formalize such arrangements is not forthcoming. This is in contrast to the example set by the 'one window' efforts of the SKAA. This provincial body embedded itself in low income settlements and facilitated the allocation of land to homeless migrants. It also furnished the informal sector with materials, utility connections, and social services programs.

In Mumbai, engagement of non-state actors has been constrained as engagement occurs after plans have failed. Policy research has revealed the existence of provisions for low income groups, but there is little evidence that support actually reaches them (SPARC, 2010). This has been the case with the pavement and slum dwellers with regard to housing and shelter service. Like many other cities, Mumbai has implemented state based toilet blocks through the Maharashtra Housing and Development Authority (MHADA) (PAC-IDRC, 2012). Mumbai has also implemented community based public toilet programs where local groups are charged with managing and maintaining community toilets (Burra, et al., 2003). However, manipulation and imbalances in state-civil society engagement have led to limited efficiencies in waste collection (De Wit, 2010).

7.2.4 Need for decentralized governance

The continued failure of top down policy and program delivery models (co-opted by neoliberal thinking) highlights the urgency of the fourth theme: the need for decentralized governance arrangements that enable lower tier state actors to engage recipient communities. All three case studies revealed the need for resourcing at the lower tiers of state (and society) to ensure that positive service delivery outcomes can be sustained across informal settlements. This kind of approach can lead to a marked shift in urban development, where equity in service delivery (or rights to services) is prioritized rather than simply the completion of infrastructure projects. The case studies demonstrated the value of employing non-state actors as facilitators of informal settlement engagement with autonomous lower tier state actors. In contrast to this them, development studies research suggests that decentralization models have failed and policymakers should be focusing on centralized systems. My findings indicate that the failure of decentralization models is implicitly linked to the persistence of upper tier interference in lower tier service delivery and program implementation. For instance, in each community, upper tier development authorities (RAJUK, KDA and the MMRDA) dictated capital and operational resource flows for lower tier water and sanitation utility operations. The tension between the two (capital project funding within the hands of the upper tiers and operational budget pressure on the lower tiers), needs to be examined in

terms of lower tier sustainability and self-sufficiency. The short-sightedness of 'project centric' and 'donor driven' decision making must be challenged. For instance, upper tier elites are likely to find different ways to extract funds from a weak utility, but if the utility fails and work is contracted out to the private sector, all local stakeholders lose out. Let us briefly compare these factors in and across each mega city.

In Karachi, the facilitating role played by OPP RTI in partnership with CBOs was eventually seen as a risk to the 'votes for services' and 'illegal hydrant' revenue streams of elected officials. The result was PPP party thugs intimidating residents to discontinue their support for the KWSB and KMC infrastructure extension (*Ghazi Goth*). In this context, decentralized governance models would ensure that any infrastructure connections made to informal settlements were established using formalized plans, offsetting the influences of party 'activists' and 'thugs'. This form of urban development is distinct from top down models, because service delivery access starts with the engagement of lower tier actors, and avoids upper tier actors, elected officials and vested interests. The community mobilization of merchants and households in *Dost Muhammed Jungar Goth* was seamless once the OPP RTI was involved. According to OPP RTI staff, it was easy to obtain access to KWSB infrastructure, given the overwhelming social and economic support from the informal settlement. In fact, the focused public anger and pressure for services counter balanced criminal elements that were charging rents for water and prompting ethnic discord in the multi ethnic community. This had obvious effects on improving state-society relations.

In Dhaka, DSK helped organize and educate the CBOs of, enabling them to sustain some levels of local water and sanitation infrastructure while pressuring DWASA for official connections (*Kalyanpura Basti and Korail*). DWASA has since grown increasingly autonomous and is now leveraging the grass roots engagement of non-state actors to mobilize CBOs for service connections. Staff members at DWASA realized that land ownership struggles were not part of their corporate mandate, but they were willing to overlook outdated land claims and bureaucratic processes in order to extend service connections to informal settlements and recover lost revenue through illegal pilferage. In *Kalyanpura Basti*, the repeated resettlement of the community despite three separate evictions illustrates the cohesion and common identity of otherwise diverse ethnic groups of migrant labourers. A number of pro poor programs are also being resuscitated to meet housing and shelter needs: donors and civil society actors are encouraging reluctant DCC slum departments to facilitate the provision of services by civil society

actors for pavement dweller centres. The engagement of lower tier state actors by lower tier non-state actors illustrates the existence of processes through which services can be extended to informal settlements. This kind of community engagement has helped forge new community and political identities for certain informal settlements and their residents.

Little evidence of accountability or transparency measures was found in Mumbai. At the lower tier, there was no evidence of regular reporting by the MCGM on water supply, storm water management, or sanitation. More concerning is the lack of clear accountability and transparency at the upper tiers of government, where resource decisions are made. The 1995 floods that inundated Mumbai drew harsh criticisms about policy, specifically regarding the lack of municipal capacity to respond, and delayed support from the state and central government, who hold the majority of resources. In many ways, this simply perpetuates reliance on the centre, rather than empowering the periphery. A number of the constraints imposed by upper tier actors are related to linkages with the criminal underground. In the absence of sufficient levels of state service delivery, a shadow economy has emerged, supplying informal settlements with costly and poor quality services. With no access to piped water, informal settlements (slums) are forced to pay local slum lords for the illegal supply of contaminated water (at 10 to 15 times the municipal tariff). This contaminated water has resulted in the spread of gastro intestinal diseases. As a result, informal sector workers suffer from frequent bouts of illness that prevents them from working enough to pay for the high costs of other services: the cycle of impoverishment as a result of poor service delivery continues. This shadow economy has also exploited an environment of rising land values, leading to pro poor schemes and projects being taken over by higher income groups.

Many researchers have referred to corruption at the lower tiers of the state as the root cause of unresponsive service delivery to the informal sector (OPP RTI, 2008; SPARC, 2010). However, my findings suggest that the problem is rooted in the role played by the upper tiers of the state as well as 'elites' who have amassed wealth and power at the expense of weakened, public facing, lower tier institutions. These drivers are clearly linked to the unleashing of market forces as part of historical, neoliberal policy designs, which I have already discussed in the earlier chapters and subsection. As NGOs and CBOs have intervened in these arrangements, they have been targeted by organized crime: OPP RTI and DSK staff have received death threats on more than one occasion, where the power of slum lords far outweighs state structures and civil society intervention. In a related vein, critics are correct in accusing larger 'upper tier NGOs' of being co-opted by market actors and engaged solely in meeting profit taking

mandates. However, my research highlights the difference between these 'upper tier NGOs' and 'lower tier NGOs' who are embedded and engaged with informal settlements and their representatives. Many critics have argued that the latter are in competition with the state and desire to substitute state machinery with non-state models: this assumption is in need of re-examination. My research recognizes that 'upper tier NGOs' operate within the neoliberal paradigm and in some ways attempt to substitute for the functions of the state. However, evidence across all mega cities reveals that a more technocratic, self-help oriented groups of NGOs is active in partnering with CBOs, representing the interests of informal settlements. This group is the most effective in mobilizing communities to engage the state.

Finally, although CBOs supplement capabilities across informal settlements, their objective has been to resuscitate lower tier capacities rather than substitute for them. There is a demonstrated willingness to pay, from lower income groups as compared to their upper income counterparts. Models are based on community capacity and capability, in light of available resources and the will to meet a diverse group of needs. Global, national, and local forms of capitalist development in the late 20th and early 21st century have introduced new actors at the global and local levels. These actors (civil society, private, etc.) have unleashed a distinctive mode of governance at the local level that is effectively autonomous or semi-autonomous. Organized crime and an informal economy have occupied this local space, ensuring that it remains outside the jurisdiction of the state. Over time, these actors have shaped urban society: autonomous, non-state actor led interventions within informal settlements are sustaining a minimal level of support to the informal sector, despite conditions of exclusion and deprivation. As a result, the informal sector is able to serve the formal sector as hyper exploited inhabitants of the city. To revive and rehabilitate the informal sector, in so far as their habitation of informal settlements is concerned, a partnership between non-state actors and lower tier state actors is required to address this weakness in service delivery governance. I argue that at this lower tier of non-state activity, there is no substitution effect, rather there is an opportunity for decentralized governance models. Both case studies from Dhaka illustrate the strengths of facilitating state service delivery, while those in Karachi and to a lesser extent Mumbai reveal what may emerge in the absence of strong lower tier state actors. CBOs and NGOs complement state services and reveal the need for lower tier state autonomy.

There is an opportunity to explore and theorize the role of the state in so far as engaging urban society through service delivery provision. Evidence reveals the ossified condition of colonial era policies towards urban centers and even mega cities, despite their size and complexity. The state's lack of

willingness to provide for urban society, through decentralization and financial support/revenue redistribution, simply strengthens the argument that the state chooses to benefit from the social and economic polarization of urban society. In other words, the informal sector and informal settlements assure the state of the provision of a steady supply of flexible labour for various modes of production. The spread of capitalism across urban centers, despite the human development arguments and isolated successes of CBOs, will continue unabated until there is sufficient resistance to the deteriorating conditions surrounding the informal sector. An enabling environment, may very well emerge from cooperation between informal settlements and street level bureaucrats whose social location within marginalized lower tier institutions benefits from broader civic engagement. The right to the city needs to include the role of lower tier actors in the rehabilitation and resuscitation of informal settlements and the condition of the urban poor.

7.2.5 The growing rural-urban divide and the neoliberal policies of an absent state

Colonialism has left a deep impression on South Asia's urban societies. The earliest marks of this impression can be traced to the dismantling of the governance structures and administrative systems that remained from pre-colonial Mughal rule. The selective resuscitation of political structures (the Jirga and panchayat systems of local governance) by colonial rulers points to the resilience of these otherwise pre-colonial forms of decision making. Colonial rulers were more concerned with the economic configuration of India, so as to maximize the flow of resources, especially tribute collection, to the British Isles. The somewhat arbitrary transferrals of regional power from district to district and city to city reoriented the centers of political and economic decision making with reverberating consequences for urban development in the decades that followed. Urban centers experienced surges of economic growth and weak infrastructure buckled under the overwhelming and spontaneous flows of commerce and trade. Urban infrastructure and the carrying capacity of cities was overwhelmed by accelerated economic development and an inflow of people. This was further complicated by the displacement of rural labourers and their migration to urban centers. For example, as development models experienced modernization, industrialization and economic intensification, more rural workers were driven to urban centers. The reasons were also in response to poorly formulated rural policies. The green revolution saw larger land holdings benefit from irrigation technology, mechanization (introduction of tractors) and downward pressure on wage labour. The neoliberal shift and economic attention given to urban

markets was enough to draw marginalized migrant labour from rural areas towards urban centers in search of employment. Unfortunately, this pool of migrant labourers would not be embraced by the urban centers of attention, rather they would struggle to find livelihood in a flexible labour force with no support or benefits. The primacy of urban market led development, mirrored by a consistent neglect of rural communities, continued well beyond the period of independence.

The period following regional independence (India followed by Pakistan and Bangladesh) was marked by a continued widening of the gap between rural and urban development priorities. Each country was eager to demonstrate its sovereign ability to develop and as a result, economic and political power was concentrated in urban centers. Embracing progress and modernity drove the policy narratives surrounding independence as each country sought recognition on the international stage. These policy priorities were intimately linked with industry and commerce. By tipping the policy scales permanently in favour of market led development, the post-colonial state had effectively picked up where colonial rulers had left off. Rural areas and agricultural sectors were increasingly seen as signs of 'developing economies' and multilateral institutions (Bretton Woods) encouraged the young nations to embrace modern manufacturing sectors and export led development. These neoliberal policies benefited from the continuous supply of informal sector labour that had surged due to the displacement of rural wage workers.

Although the post-colonial state has been active in promoting neoliberal policies, it has been absent from the policy discussions emerging from rising levels of informality. Corporations and large businesses have clearly benefitted from the economic growth and competitive advantage underpinned by low wage labour. Civil society actors, referred to as the 'development industry', have long been criticized for simply facilitating the perpetuation of neoliberal thinking without advocating for social change. The unquestioned continuation of neoliberal policy thinking is arguably evidence of the resilience of the 'blurred lines' between state, market and civil society actors. The developing, post-colonial economy has been able to maintain a niche in the global marketplace in part, due to the ready supply of informal sector labour to industry (textiles, manufacturing and services). However, the condition of labour and the exploitative relationship with capitalists has gone unaddressed. As a result, South Asia's cities are the sites of the greatest economic disparities on the planet. The elite of urban South Asia's posh enclaves reside a short distance from the most marginalized living conditions in the region's urban

informal settlements. The developing state must intervene to reverse the trend of continued social and economic polarization

At this juncture I should point out that I do not intend to unpack the implications of neoliberalism for the developing state or mega city. Rather, I am simply acknowledging the role that neoliberal forces are playing in polarizing urban state and society. However, we must face the reality that as these mega cities expand, the need for the most basic of services will be central to any establishment of order. Otherwise, marginalized communities among others will be the sites of conflict as competition for resources disrupts urban life. We must face the reality that as these mega cities expand, the need for basic services on the ground in the most marginalized communities will be the site of conflict and class divided. What is needed is for the state to ensure the equal and equitable delivery of these services in ways through community based organizations. Polarization of state and society has happened as a result of the regions colonial history. However, neoliberal theorists must acknowledge the polarization of the state in terms of structure and interests, rather than taking a strong anti-state view and assuming as Harvey has rightly indicated, that all state actors benefit equally from the spread of capitalism and accumulation by dispossession. In reality, neoliberalism has removed the constraints of state instruments - but to what extent and for what outcome in so far as mega city services are concerned? The dismantling of state apparatus through colonialism, and concentration of power at the levels of central government have only marginalized groups and through crises have redistributed wealth into the hands of the elites. However, it does not account for the role of lower tier state actors.

Despite the segregation of developing societies along class lines, much of the critical literature treats the 'developing state' as a homogenous structure. My findings demonstrate how developing states are divided into upper and lower tiers, where functionaries have distinct social and economic characteristics. Upper tier actors concentrated and contained policy capacity and control within national and provincial/state levels of government, while their lower tier counterparts inherited expanding jurisdictions of responsibility without the necessary resources or decision making authority. Presently, the upper tier cadre of civil service bureaucrats compete for high profile postings, far removed from the realities of program implementation and frontline service delivery. Lower tier departments and frontline offices face stiff competition (and staff turnover) from private sector actors. The result has been a social and cultural divide between upper tier policy capacities and lower tier program capabilities. In each

mega city, upper tier state actors (mainly development authorities) continue to impose flawed planning models on lower tier departments.

In light of these emerging themes there is a need to realign capacities and capabilities to support bottom-up basic needs provision and human development. Across all mega cities, elitists influence capital development planners who in turn overlook the bylaw enforcement, codes, operations, and maintenance concerns of lower tier departments. Upper tier state actors (KDA, MMRDA and RAJUK) rarely take into account the needs of lower tier state actors (KMC, MCGM and DCC) and their operating realities. Many donors, researchers, and administrative development analysts consider a lack of coordination between horizontally situated departments (electricity utilities, land control, and water utilities) as the root of management inefficiencies (Satterthwaite et al, 2011). Functionaries can distribute services to those who can access them, but risk the integrity of the system if the institutional credibility collapses. It is no surprise that many stakeholders from the public, academic, and private sectors have called for institutional reforms in these mega cities.¹⁴⁴ These calls range from political to administrative functionaries at the upper tiers of the state to the most distant CBOs of overseas diaspora. Some foreign scholars have argued for sector by sector privatization, to facilitate capital investment into urban centres (McKinsey, 2001). Local scholars have called for increased decentralization and deconcentration of power to lower tier actors, to encourage and fund the engagement of neighbourhood level state and non-state actors (Siddiqui et al., 1998). Others have argued for the need to decentralize authority to the local levels of government and remove the 'unrepresentative' context of upper tier interference in mega city governance and decision making (Kundu, 2011). All of these calls share one assumption: political actors are the most effective agents of service delivery transformation. My findings across the various service delivery contexts challenge this assumption.

The preceding analysis reveals opportunities and threats to service delivery to informal settlements. The main gaps are in intergovernmental support, where well networked land grabbers and powerful water

¹⁴⁴ Some political parties have grown in popularity by simply calling for the de-politicisation of service delivery machinery. While such an approach is perhaps unfeasible, it highlights the popularity of the notion within sufficient segments of the electorate.

mafias are appropriating public goods. Lower tier actors fear elites and upper tier retribution for any changes to the status quo: the few managers who are eager for change see no benefit in speaking out. Capital intensive donor projects have been shown to not work; instead, state and non-state actors should explore initiatives that promote institutional reform, strengthening service delivery equitably to all formal and informal settlements. CBO efforts, strengthened by economic interests (*Dost Muhammed Jungar Goth and Korail Basti*), can improve water and sanitation services and decrease pilferage of water supplies. However, in other cases, the absence of consensus and the antagonistic relations between upper and lower tier state actors prevents services from being extended. In this kind of situation, (*Ghazi Goth, Korail and Dharavi*) community interests are no match for party politics and provincial/municipal jurisdictional disputes, so it is important to appreciate the limited capacity of non-state actors.

Appendices

Table 5 Water and Sanitation across South Asia (Improved Access)

		Water				Sanitation			
		Urban		Rural	National	Urban	Rural	National	
		Improved		Improved	Improved	Improved	Improved	Improved	Unimproved
Country	Year	Total Improved (%)	Piped on Premises (%)	Total Improved (%)	Total Improved (%)	Improved (%)	Improved (%)	Improved (%)	Open Defecation (%)
Bangladesh	1990	87	26	75	77	58	34	39	33
	2010	85	20	80	81	57	55	56	4
India	1990	88	49	63	69	51	7	18	75
	2010	97	48	90	92	58	23	34	51
Nepal	1990	96	43	74	76	37	7	10	80
	2010	93	53	88	89	48	27	31	49
Pakistan	1990	95	56	81	85	72	7	27	52
	2010	96	58	89	92	72	34	48	23
Sri Lanka	1990	91	37	62	67	85	67	70	14

Source: World Bank, 2014

Table 6 Water and Sanitation across Regions (Improved Access)

		Water					Sanitation			
		Urban		Rural		National	Urban	Rural	National	
		Improved		Improved		Improved	Improved	Improved	Improved	Unimproved
Country	Year	Total Improved (%)	Piped on Premises (%)	Total Improved (%)	Piped on Premises (%)	Total Improved (%)	Total Improved (%)	Total Improved (%)	Total Improved (%)	Open Defecation (%)
Total for SAR	1990	90	53	66	8	72	57	12	24	67
	2010	96	51	88	13	90	64	30	41	41
Total for LAC	1990	95	87	64	37	85	80	38	68	18
	2010	98	92	81	61	94	84	60	80	4
Total for World	1990	95	81	62	18	76	76	29	49	25
	2010	96	80	81	29	89	79	47	63	15

Source: World Bank, 2014

Table 7 South Asia Population Trends

	Total Population mn 2007	Population Growth % 2007-2015	Urban Population mn 2007	Urban Population Growth % of total	Urban Growth %	GDP Growth Rate 2000-2007	Number of Slums in mega city	Slum Populations
India	1125	1.3	329	29	2.5	7.8	1,000+	12,000,000
Pakistan	162	2.1	58	36	3.3	5.6	800+	7,600,000
Bangladesh	158	1.6	42	27	3.7	5.7	700+	2,000,000

Source: World Development Indicators; Authors Compilation

Table 8 Population Growth in Dhaka

Year	Total Population	Number of Slum Settlements	Slum Population
1975	2,200,000		
1993		2,100	
1996		3,007	
2005		4,966	3,400,000
2007	13,500,000		
2011	12,500,000		
2025	22,000,000		

Source: Metropolis, 2009 and Source: CUS, 2006

Table 9 Recommendations for Institutional Reforms across Dhaka

Area	Administrative Reforms	Political Reforms
Autonomy	Create an independent LG commission that makes policies (reduce spatial and service delivery responsibilities of DCC, depoliticize the institution)	Spread out the representation of ward leadership, increasing voter numbers in order to encourage participation.
Alignment	Align all zonal office jurisdictions with agency responsibilities such as police, water, transportation, housing, etc. to facilitate horizontal communications between separate departments.	Delegate town planning to the DCC deputy mayor (elected by the WCs) and council.
Authority	Align all DCC functions away from quasi-governmental organizations, improve financial management through the ILGC guidance	Increase power and authority to the mayor and council as well as to the deputy mayor, council members and ward commissioners.
Policy Capacity	Improve training of DCC staff and develop policies, procedures and formal agreements with NGOs and NFPs for extension of DCC operations	Establish a metropolitan government structure with city based policy and program development and administration capacities

Source: Siddiqui et al, 2008, Authors compilation

Table 10 Dhaka's Polarized Land Statistics

	Criteria		
90%	Private sector Housing	Housing and Low Income	10%
20% of land	Wealthiest 5%	Poorest 5%	2% of land
80% of land	High income groups (30% of population)	Low income groups (70% of population)	20% of land
10-20 people/acre	Wealthiest land	Poorest land	1,000-1,500 people/acre
1,000+ households	Large slums (20%)	Small slums (80%)	10-50 households
75%	Slums on private land	Slums on public land	25%
60%-65%	Slums with services	Slums without services	30%-35%
		Slums w/o water	15%
		Slums w/o drainage	20%
		Slums w/o toilets	25%

Source: Siddiqui et al, 1993, CUS, 1988, 2005; Islam, 1985

Table 11 History of Dhaka's Slum Policies

Year	Policy	Actor
1989	Slum problem and solutions	Land Ministry
1993, 1999	Housing policy	GoB
1996	Study of urban poverty	ADB

Source: Siddiqui et al, 2008. CUS

Table 12 History of Dhaka's Water and Sanitation Policies

Year	Policy	Program Elements
1998	National Policy for Safe Water Supply and Sanitation	While recognizing the authority of DWASA, it specifies room for NGOs and private sector to extend service delivery. Decentralization is emphasized as well as pluralism in planning. Cost recovery for DWASAs as well as social safety nets for the hard core poor are specified.
1998	National Water Policy	Governs all of the agencies and institutions to improve water management and encourages DWASAs for social awareness and that safe water is a valuable resource.
2004	National Water Management Plan	private sector value outlined in capital project delivery
1992	National Environment Policy	Environment must be safeguarded and hence conservation and protection of water resources is critical.
2004	National Policy for Arsenic Mitigation	Guidelines for arsenic mitigation nationwide with reference to NGO and non-state actor engagement.
2005	National Sanitation Strategy	Strategy to foster demand for effective sanitation through health and hygiene education and promotion. Special support to the hard core poor are outlined along with slum service extension as defined from land tenure ship, public private partnerships for service delivery to slums, enhance coordination, build sufficient public toilets and lease to NGOs and private sector.
2005	Pro Poor Strategy for Water and Sanitation	Defines the basic level of WSS service up to which government should provide subsidy. The minimum here is outlined as 20 liters with water points located within 50 m of household premises. Basic level for sanitation is one hygienic latrine per household.
2005	Sector Development Program for Water Supply and Sanitation	Aims to fulfill minimum WSS needs for all citizens by 2013. Investment plan for WASH program over next 10 years.
2004	WASH Sector Development Framework	Forum for coordination and implementation with devolution of authority to LGIs, autonomy to WASAs and city corporations and involvement of NGOs and priority for hard core poor.
2005	Poverty Reduction Strategy Paper (PRSP I)	WASH issues for human development to accelerate poverty reduction.
2009	Poverty Reduction Strategy Paper (PRSP II)	Medium term policy of new government to complement the previous document. More integrated water resource management through GO and NGO cooperation.

Source: DSK, 2013

Table 13 DWASA MoU with NGOs

Component	Roles and Responsibilities
Objectives	Develop a sustainable environmental friendly low cost human sludge management system through public private partnership
	Engage private organization in human sludge management as a business
	Prepare organic fertilizer by managing human sludge
	Scale up the system in other cities and towns
Outcomes	Environmental friendly low cost human sludge management system.
	Private organization involve in human sludge management
	Other cities and town adopt the system
	Produce organic fertilizer
	Partnership between public and private
Implementation	The facilities shall be developed by the public utilities DWASA. The treatment site shall be given by DWASA/DCC at the periphery of Dhaka city. An environmental friendly treatment system shall be constructed by DWASA. Cleaning and Transportation device (Vacutug) shall be purchased by DWASA.
	DSK shall manage the system on a revenue neutral basis. DSK shall collect sludge from the household/ institute/ industries by properly cleaning septic tank/ pit. Awareness and demand will be created by DSK. DSK shall charge service from the households which meet the running and maintenance cost of the system.
	DSK, DWASA and DCC motivate private entrepreneurs to enter in this business. Initially Govt./ donor can provide some sort of incentive benefit/ promotional benefit to create their interest in this business. From growing demand DWASA shall provide treatment facilities to the private business.
	DWASA play a coordination role to oversee and support to manage of the system properly and effectively. DWASA and DSK also shall take responsibilities to motivate other city/ town authority to introduce this system through PPP.
	Build, Operate, Transfer model - Initially the facilities develop by DWASA and manage by DSK. Gradually private entrepreneurs shall be involved. The whole system shall be transfer to the private party as a new business venue to run commercially.
	Initially, service fees will be fixed by DSK in-consultation with DWASA. When private entrepreneurs will be involved, the fees will be fixed by the entrepreneurs.
Piloting	Initially, two/three years period will be the pilot phase in one areas (Mirpur) in Dhaka city.
	During the pilot interested private entrepreneurs involve in the system and gradually make them interest towards business. At the end of the pilot phase Private entrepreneurs will start business and gradually increase business capacity.
	After successful piloting the scale up in other part of Dhaka city and other cities / town shall be taken scale up activities by introducing PPP model
Financing of Infrastructure Development and Management	Capital cost shall be provided by DWASA as part of its "LIC" support project. Initial promotional cost also covers by DWASA project
	The management cost shall be provided by DSK by collecting service fee.
	When private entrepreneurs will involve in the business, they will arrange transport (DWASA can arrange interest free loan). Use of treatment facilities will be free initially but later on DWASA can charge fees for using treatment system.
	A mechanism shall be developed to produce organic fertilizer and its business plan.

Source: DSK, 2013

Table 14 Housing tenure of the urban poor in Dhaka (1995)

	Dhaka			All Urban		
	Hard-core Poor %	Moderately Poor %	All poor	Hard-core Poor %	Moderately Poor %	All poor
Owner	16.4	16.2	16.3	28.8	25.5	27.7
Tenant in private house	42.4	49.6	45.4	45.6	48.4	46.6
Government tenant	5.6	5.2	5.4	5	7.6	5.9
sub tenant	5.2	5.7	5.4	3	5.5	3.2
rent-free	9.3	5.7	7.8	7.6	5.2	6.8
Illegal	20.2	16.1	18.5	9.5	8.8	9.3
Others	0.9	1.5	1.1	0.5	1.1	0.7
Total	100	100	100	100	100	100

Source: Islam et al, 1997

Table 15 OPP Timeline of Reported Milestones

Year	Reported Events
1980	AHK consolidates planning resources and maps obtained from KDA planners and NIPA offices, where the OPP was initially to be situated. He also documents the inadequacy of engagement between institutional actors and citizens of Orangi.
1981	Low cost sanitation model begins
1984	Health and family planning, women entrepreneurs and family enterprise begins
1988	Low cost housing begins
1991	KMC consults OPP RTI on an ADB funded sewage project and advice to SKAA continues as well.
1992	Loans from foreign agencies are given to family run and women run enterprises and informal sector businesses with most loans repaid. Transparency is shown and the names of defaulters published. Low cost housing and sanitation lines established with benefits of engaging local materials suppliers reported. By engaging and upgrading the existing machinery of poor housing development, rapid returns experienced with little state process delays. Replications in Shikarpur, Sukkur, Lahore and Hyderabad.
1993	External and internal components laid in various Karachi and outside projects with public officials from police as well as KDA offering support in permits for lines to be laid for water and sewage infrastructure.
1994	Social and technical assistance provided across Karachi, Lahore, Hyderabad and Sukkur. Failure of KDA and HBFC documented as insufficient in providing housing for the poor. Training and education of donors, state officers, journalists and academics increases. Documentation and communication between state and community actors increases. More colonies and settlements across urban areas engaged with some intervention on demolition cessation coming from the ministers who had visited OPP partner NGOs. More engagement with the KMC on project reviews such as donor funded project work, specifically the ADB. KMC and KWSB projects with donors receive some consultation from OPP RTI. Coordinating meetings with SKAA and KMC on housing and sanitation lines work and ensuring quality assurance.
1995	Detailed profiles of candidate colonies and katchi abadis in need of support is disclosed. Sukkur consultancy stops as approach deemed too different from OPP RTI model
1997	Increased training and work with SKAA on OPP approach across Karachi. Savings in the order of 15 to 30% documented as a result of simplified designs and low cost solutions and models. Issues with loans mitigated through pre-screening with legitimate CBOs and affiliates. OPP stopped loans for a few years and is putting more emphasis on recovery rather than simply finding loans to give out.
1998	More technical training and entrepreneurial support in surrounding urban settlements. Intense Collaboration with SKAA continues with work being done in several settlements and Goths, planning, external water and components being developed and implemented with minimal issues. Issues with OCT trust and micro enterprise continue to badger the OPP and stalls on new loans continue.
2000	Work in SWAT, Lodhran, Rawalpindi and Faisalabad continues with more work with government staff from municipal agencies, mainly local WASAs. KWSB engaged throughout Karachi on work being contracted out and inspections regularly being done by OPP RTI and KMC and KWSB staff. Manzour colony is an interesting case of constraint, where state officers refuse to demolish houses and contractor pressure has led to design changes to save and pocket money by contractors, state officials, etc. This supports the OPP RTI initiative of keeping project costs low, to avoid the presence of greed and corrupt practice. Research and study of the KWSB dependence on loans and its corrupt practices are published in a report.
2001	Work in various abadis continues along with advice to SKAA, KMC and DMCs on implementation of development planning. Work with KWSB has exposed the donor driven and consultant oriented agendas of outsourced planning and engineering, which amounts to several million rupees for unfinished work.
2008	Low cost model is now being replicated by CDGK, PKAUI and other donor and state authorities including NGOs and CBOs. Advisory services for KWSB SIII is continuing. Surveys and documentation are also increasing with state officials and SKAA, KMC and CDGK.
2012	More Goths based work being done as well as on nalas and the construction of box drains to protect open sewage from spilling into the streets.

Source: OPP Annual Reports

Table 16 Water Supply and Sanitation in Karachi

Measures	2005
Population in Karachi	12,750,000
Demand of water	680 MGD
Supply of water	540 MGD
Shortfall	140 MGD
filtered water	350 MGD
Water lost through distribution (unaccounted for)	35% to 50%
sewage generated	370 MGD
sewage treatment installed	151 MGD
sewage actually collected	90 MGD
over 80% into the Arabian sea, untreated	280 MGD

Source: ADB, 2005.

Table 17 Karachi's Area and Housing Make Up

Measures	Units
Non Residential	74%
Residential	36%
Formal development for 38% of pop	27%
informal development for 62% of pop	9%
Houses 120 sq yards or less	88%
Houses on 120 to 400 sq yards	10%
Houses on 400 to 2000 sq. yards	2% (21% of residential land)

Source: Hasan, A., 2004a

Table 18 Milestones in Pakistan's Local Governance Development

Period	Policy Developments
1700s	Madras was the first municipal corporation
1930s	City of Karachi Act passed
1960s	Basic Democracies Ordinance enacted
1970s	BDO abolished
1970s	LGO Ordinance established but not implemented
1980	Zia enacts LGO
2000	LGO enacted Musharraf with non-party based elections
2006	second non-party based elections
2009	democratic governments refuse to recognize local governments
2010	party based local elections?

Source: Siddiqui et al, 2004

Table 19 Karachi's Post Partition Demographic Transformation

	pre 1951	post (1951)	Current (2015)
Population	4,500,000	1,137,000	24,000,000
Languages			
Sindhi	61.20%	8.60%	
Baluchi	8.60%		
Urdu/Hindi	6.30%	50%	
Punjabi	4.30%		
Gujrati	3.50%		
Religions			
Hindus	51%	2%	
Muslims	42%	96%	
Christians	3.50%		
Parsis	1.10%		

Source: Gazdar, 2003

Table 20 Solid Waste Management Pilot in Karachi (OPP RTI)

Solid waste generated	6,500 tpd
separated at source	800 tpd
Recycled	1,500 tpd
burnt as fuel for kilns	450 tpd
used as land fill for reclamation	250 tpd
number of recycling units	435
yearly turn over	1.2 billion rs
Employment generated for families in pilot	
Kabaris	15,000
middle dealers	800
main dealers	1,000
street pickers	20,000
dump pickers	1,000
Problem	
Garbage is not collected from kutchra kundis (waste collection depots) as scavengers and contractors pay KMC staff to not pick it up	
Picked garbage is sent to recycling and not land fill. The recycling units are in Sher Shah and the peri urban katchi abadis	
Solution	
There is a pressing need to recognize the recycling industry and relocate it near land fill sites.	

Source: Hasan, 2014

Table 21 Housing Trends and Demands in Karachi

Population growth per year	600,000
Natural	270,000
Migration	330,000
Housing demand per year	80,000
Formal sector supply	30,000
Accommodated in Katchi Abadis	32,000
Densification	18,000

Source: OPP RTI, 2011

Table 22 OPP Low Cost Sanitation Model

City	Community	Roles and Responsibilities
City lays main line	Community told to lay theirs, based on component sharing (water) or low cost sanitation (sewage) model.	Community leader identified, a trust for savings set up
		OPP RTI works with the leader to establish a plan and feasibility study.
		Money collected by the community leader (difficult part)
		Materials obtained
		Resources hired – mason, laborers and digging, pipe laying commences
		Secondary branch line laying is completed
City connects to branch	Laneway branch ready	Secondary branch lines laid connecting to city line

Source: OPP Annual Reports

Table 23 KWSB and OPP RTI – Issues and Opportunities

KWSB	Issues	OPP RTI
Quantity of Work	While the shared roles are appreciated, there is disagreement on the pipe that has been laid by the OPP RTI and communities vs. pipe laid by KWSB.	Quality of Work
Revenue Collection	KWSB claim that larger customers are carrying the burden of bill payments, while the poor complain of low pressure and are getting away with not paying. They claim that the poor receive better service than other neighborhoods.	Low Pressure
No Comment	The OPP claim that the KWSB needs to address illegally operating tankers and the hydrants they pilfer water from.	Illegal pilferage
Lack of security	KWSB staff members are not as forthcoming on how to deal with illegal hydrants and the lack of police security for KWSB inspectors and field personnel.	No Comment
	KWSB staff also admit to not being able to understand its own limitations, for which reason they have engaged civil society members through the URC in efforts to open dialogue with communities that are under serviced.	Lack of capacity
Policy Research	KWSB staff point to the knowledge generated by donors and institutes studying the KWSB context for knowledge retention.	Policy Research
Lack of capacity	The response by the KWSB to such engagement is telling of its position on retaining some functional integrity and responsibility for infrastructure and yet, admitting to its shortcomings in being able to engage lower income communities.	

Source: OPP, 2013; KWSB, 2014

Table 24 Solid Waste Supply Chains in Karachi

Source	Step 1	Step 2	Step 3
Waste Generators	Waste Pickers	local junk shop	junk dealers
	Informal waste collectors		
	Iterant waste buyers		
	formal waste collectors		

Source: Hasan, 2014

Table 25 Solid Waste Generation in Karachi

KHI solid waste	Solid waste generation in Karachi	
MSW	10,000 tons per day	
Treated	4,500 tons per day	
burning, dumping, storm water drains	5,500	
DMC	Collection	transfer and transport
KMC	Treatment	recycling, disposal, land fill

Source: Hasan, 2014

Table 26 McKinsey recommendations on Mumbai

Recommendation	Specific Implementation Considerations
Make MMRDA MPC combination work	While the amendment of the Indian Constitution in 1992 recognized local government as a constitutional entity, a large city like Mumbai requires that it have a metropolitan planning committee (MPC). This has not happened as the MMRDA already exists.
	The municipal commissioner (MCGM) and the state government standing committee (MMRDA) are often always at odds regarding the state of planning, which results in a lot of delays, reversed decisions and not much planning initiative (Pinto, M., 2008; Ruet, J. et al, 2009).
MPC should house the development plan	The MPC, as per the constitution, should in preparing the draft development plan, inter alia have regard to 'matters of common interest between municipalities and the panchayats, including coordinated physical planning of the area, sharing of water and other physical and natural resources, the integrated development of infrastructure and environmental conservation'. The MMRDA is not likely performing any of these more operational and inclusive responsibilities at functions (Phatak and Patel, 2005).
	While the 74 th constitution has tried to empower lower tier municipalities away from the process freeze and wrangling of state government politics, it failed due to pressure and resistance from state governments. While the pressures to decentralize continue, they are still far from achieving autonomy from even the largest administrative units, namely the MCGM (Pinto, 2009).
	Demarcate responsibilities of municipal authorities and ULBs
Make the city self-governing	The constitution envisages that municipalities be self-governing, however the state government has not assigned functions listed in the twelfth section and rather, the state government has retained most of these functions with itself. The government can make changes to the DP without reference to the local authority. The following all took place among the initiatives of the state government and under its dominance (Phatak and Patel, 2005).
	(Slum rehabilitation authority scheme (1995),
	(Changes in FSI for redevelopment of cessed buildings (1999),
	(Alterations in DCR regarding redevelopment of textile mills (2001)
Devolution of power to specific departments and municipal capacities	Article 243S indicates that ward committees in larger cities should have devolution of powers and functions, however in Mumbai the 16 ward committees have not been constituted nor have they received discernable functions (Phatak and Patel, 2005).
	Accelerate internal generation of funds through land monetization and PPP.
	Need cascading plans and for starters, a concept plan that can be binding on development plans
	Such an approach might work, but at the level of the local government, there are many departments at work. As related to the previous point on cascading development plants, there is
	☐ One urban development department
	☐ Two secretaries (one town planning and one municipal administration)
	☐ Department of housing
	☐ Department of water supply and sanitation
	☐ Department of industries
	☐ Department of environment.

Mayor in Council Model	Install a modified mayor commissioner for all corporations in the region and corporatize key services such as MCGM and TMC. The current system is derived from colonial rule, where the system gave elected councillors a voice in civic affairs, while the real power remained in the hands of a government appointed officer, in this case, the commissioner of the state (Phatak and Patel, 2005).
	There is a need for decentralized governance that engages all stakeholders, state and non-state and allows for a participatory process of planning and consensus based collaboration among units of governance. This should also include ward committees, the litmus test of real political power being devolved. Unfortunately at present, the state still hangs onto administrative, fiscal and economic power, avoiding its decentralization (Phatak and Patel, 2005).
	The caveat in Phatak and Patel's analysis is that they base the recommendation on the ability of stakeholders to collectively look for the greater good rather than fall into rational and self-serving political positions, as often takes place in city governments where council has more authority and lacks the guidance from higher orders of the state [1].
	The Kolkota model, where the state commissioner works for the elected mayor and represents the state's interests, may work, and create a three tiered system, where checks and balances are also engaging of state government mandates (Phatak and Patel, 2005).
	Phatak and Patel point to the mayor in council model that is held in Vancouver as well as Toronto. However, fragmented agendas between left and right leaning members has paralyzed any creative decision making from some time in both jurisdictions, thereby questioning the role of such a model or its effectiveness, without a long term vision.
Regular Budget	Install a capital investment program of \$7.3 billion per annum from MMRDA.

Source: McKinsey, 2010

Table 27 Investment by Sector

Period	Year	Total Outlay	Per Cent of Investment by sector				
			Agriculture /irrigation	Power	Industry/ Minerals	Transport and Communication	Housing/Urban Development
third plan	1961	85.8	20.6	14.6	20.1	24.6	1.5
annual plans	1966	66.3	23.8	18.3	22.8	18.5	1.1
fourth plan	1969	157.8	23.3	18.6	18.2	19.5	1.7
fifth plan	1974	394.3	22.1	18.8	22.8	17.4	2.9
sixth plan	1980	1104.7	22.5	16.7	15.5	16.2	2.6
seventh plan	1985	2214.4	20.4	17.3	13.4	17.4	2.3
annual plans	1990	583.7	19.7	19.5	10.9	18.9	2.9
annual plans	1991	647.5	19.7	22.4	10.1	20	2.1
eighth plan	1992	4341	20.6	18.3	10.8	18.7	2.4
ninth plan	1997						
tenth plan							

Notes:

Total outlay in Rs. Billion

Agriculture/irrigation includes agriculture and allied activities, rural development, irrigation and flood control

Transportation includes all rail and road transport, post and telegraph and telecommunications

In housing/urban development, the latter was 1.1 percent, 1.3 percent, 1.2 percent and 1.2 percent respectively for the seventh, 1990, 1991 and eight plans.

Source: Government of India (1995)

Table 28 Water and Sanitation Statistics for Mumbai

Indicator	Statistic
Availability of water	261.74 liters per capita per day (2007 to 2010)
MCGM Supply	3,300,000,000 LPCD
Slum supply	90 LPCD
Elite enclaves	300 to 350 LPCD
Ministry legislated	135 LPCD
Water and Sewage Exp.	1,094 rupees per capita per year (470 to 2375 to 1,094 Rs fluctuations)
Sewage collection	42%
Sewage to open creeks	68%

Source: PAD IDRC, 2012

Table 29 Mumbai Population Statistics

2010 Population	24,000,000
2030 Forecasted Population	33,000,000

Source: Metropolis, 2009

Table 30 India Slum Rehabilitation Policies

Year	Policy
1971	Slum Act
1972	Slum Improvement Program
1980	Slum Upgrading Program
1985	PM Grant Project
1995	Free Scheme through Shiva Sena

Source: SPARC, 2011

Table 31 Estimated Employment in the Organised and Unorganized Sectors – Mumbai, 1961

Industry	Organized Employees	Unorganized Sector			Employees	Total Workforce
		Total	Employees	Others		
Primary Production	0.5	30.1	15.9	14.2	1.4	32
Manufacturing	466.7	194.3	122.1	72.2	27.5	688.5
Food and Beverages	14.5	10.4	6.5	3.9	1.9	
Tobacco	2.3	7.9	2.2	5.6	0.6	
Textiles	267.7	27.6	7.7	19.9	6.3	
Printing	14.7	8	6.8	1.2	2	
Petroleum	11.2	5.4	5	0.4	0.4	
Chemicals	29.4	11.5	9.6	1.9	2.4	
Non-Metallic Minerals	13.2	9.1	7.3	1.8	0.5	
Metals and Engineering	95.5	41	31.6	9.5	7.8	
Miscellaneous	18.2	73.3	45.4	27.9	5.8	
Construction and Utilities	57.3	14.2	2.3	11.8	2.5	73.9
Trade and Commerce	56	200.3	88	112.3	47.5	303.8
Wholesale trade	10.8	18.8	7.7	11.1	8.5	
Retail Trade	5	173.8	80.3	93.6	23.6	
Finance and Commerce	34.3	7.7	0	7.7	5.4	
Transportation	101.2	85.5	44.6	40.8	2.6	189.3
Communication Services	154.5	226.5	170.7	55.8	14.7	395.7
Public Administration	81.3	0	0	0	0	
Education	31	1.2	0.1	1.1	0.7	
Medicine	9.5	11.4	8.5	2.9	1.8	
Personal Services	8.2	174.5	142.4	32.1	9.4	
Other Services	23.9	39.4	19.7	19.7	2.8	
Unclassified	1.3	2	1.3	0.7	0.1	3.5
Totals	837.6	752.3	444.9	307.4	96	1686.7

Notes: Column 1 Employees in the public sector and private sector establishments employing more than 25, including identifiable military personal and excluding identifiable non residents

Column 3 difference between 'employees in non-household industry' given by the census and column 1

Column 4 single workers, family workers, workers in household industry, cultivators and agricultural laborers as reported in the census

Column 5 employers as reported by the census

Column 6 total workers reported by the census. Sum of columns, 1,2 and 5.

Source: Jhabyala, 2005

Table 32 Data Sources by Service Context and Mega City

Service/City	Dhaka	Karachi	Mumbai
Housing/ Shelter	Dhaka City Corporation	Karachi Municipal Corporation	Municipal Corporation Greater Mumbai
	Government of Bangladesh	Ministry of Sindh	State of Maharashtra
	Concern International, Slum Dwellers International	SAIBAN, Orangi Pilot Project RTI, Slum Dwellers International	Society for Protection of Areas Resources, Slum Dwellers International
Water/ Sanitation	Dhaka Water Sanitation Authority, Dhaka City Corporation	Karachi Water and Sewerage Board, Ministry of Sindh	Municipal Corporation Greater Mumbai
			State of Maharashtra
	Dhastha Shashthrya Kendra , Asian Development Bank, WaterAid	Orangi Pilot Project RTI , Asian Development Bank, WaterAid	Sulabh International , WaterAid
Solid Waste Management	Dhaka City Corporation	Karachi Municipal Corporation	Municipal Corporation Greater Mumbai
	Government of Bangladesh	Ministry of Sindh	State of Maharashtra
	Waste Concern, Asian Development Bank	Orangi Pilot Project, World Bank	

Source: Authors compilation

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Abbreviations and Acronyms

ADB	Asian Development Bank
AHK	Akhtar Hameed Khan Foundation
<i>'Basti'</i>	Informal Settlements
BCAS	Bangladesh Centre for Advanced Studies
BMC	Bombay (Brahmaputra) Municipal Corporation
BRT	Bus Rapid Transit
CBO	Community Based Organization
CDGK	City District Government Karachi
CDGL	City District Government Lahore
CDN	Community Development Network
CLC	Commons Law Company
DCC	Dhaka City Corporation
DSK	Dhastha Shasthya Kendra
DWASA	Dhaka Water and Sanitation Authority
FLAG	Foundation for Law and Governance
GOP	Government of Pakistan
GOPu	Government of Punjab
GOS	Government of Sindh
<i>'Goths'</i>	Peri urban settlements (villages) that surround the urban centre
ICLS	International Conference for Labour Statisticians
ICRIER	Indian Centre for International Economics Research
ICS	Indian Civil Service
ILO	International Labour Organization
IMF	International Monetary Fund
INGO	International Non-Government Organization
IS	Informal sector
JICA	Japanese International Cooperation Agency
JNNURM	Jawahrlal Nehru Urban Revitalization Movement
KA	Katchi Abadi (slum dwelling or community)
<i>'Katchi Abadi'</i>	Informal Settlements
KDA	Karachi Development Authority
KKB	Khuda Ki Basti (God's House)
KMC	Karachi Municipal Corporation
KMHB	Karachi Municipal Housing Board
KMTA	Karachi Municipal Transportation Authority
KTC	Karachi Transportation Corporation
KU	Karachi University
KWSB	Karachi Water and Sewerage Board
LDA	Lahore Development Authority
LRT	Light Rail Transit
LUMS	Lahore University of Management Sciences
<i>'Mastaan'</i>	Slum lord representing criminal interests in a low income settlement
MCGM	Municipal Corporation of Greater Mumbai
MLI	Multilateral Institution

MM	Mahila Milan
MMRDA	Metropolitan Mumbai Rehabilitation and Development Authority
MOL	Ministry of Labour
MQM	Muhtada Qaumi Movement
MUH HDC	Mahbub Ul Haque Human Development Centre
NGO	Non-Government Organization
NWFP	North West Frontier Province
OPP RTI	Orangi Pilot Project – Research and Training Institute
OPP	Orangi Pilot Project
P&D	Planning and Development Department
<i>‘Panchayat’</i>	Local council or unit of organization at the town or city level
PIDE	Pakistan Institute of Development Economics
PILDAT	Pakistan Institute of Legislative Development and Transparency
PILER	Pakistan Institute of Labour Education and Research
PKAA	Punjab Katchi Abadi Authority
PPP	Pakistan People’s Party
PRMP	Punjab Resource Management Program
PURC	Punjab Urban Resource Centre
RAJUK	Dhaka Capital Development Authority
SAARC	South Asian Association for Regional Cooperation
SAIBAAN	Social Housing Organization
SDI	Slum Dwellers International
SDPI	Sustainable Development Policy Institute
SKAA	Sindh Katchi Abadi Authority
SPARC	Society for the Protection of Area Resources
SS	Shiv Sena
<i>‘Tehsil’</i>	Division of state administration at the lower levels of state
TMA	Tehsil Municipal Authority
TVA	Tehsil Volunteer Associations
UN	United Nations
UNDP	United Nations Development Program
UNICEF	United Nations International Children’s Emergency Fund
URC	Urban Resource Centre
UU	Urban Unit
WASA	Water and Sanitation Authority
WB	World Bank
WSB	Water and Sewage Board
WSP	Water and Sanitation Program
WTO	World Trade Organization