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Fluid Hegemony: A Political Ecology of Water, Market Rule, and Insurgence at
Bangalore's Frontier

by

Malini Ranganathan

A dissertation submitted in partial satisfaction of the

requirements for the degree of

Doctor of Philosophy

in

Energy and Resources

and the Designated Emphasis

in

Global Metropolitan Studies

in the

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of the

University of California, Berkeley

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Fall 2010

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by Malini Ranganathan

Abstract

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Doctor of Philosophy in Energy and Resources

University of California, Berkeley

Professor Ananya Roy, Chair

Since the turn of the millennium, the city of Bangalore (officially Bengaluru) has experimented with a series of neoliberal, market-oriented reforms to overhaul the institutional, pricing, and financial aspects of its urban services. The city's water, in particular, long considered a service that must be subsidized by the state, has been targeted under interventions that seek to commercialize, rationalize, and privatize delivery, while simultaneously deepening certain forms of regulatory oversight. Supported by a melee of international development actors and administered by state-level experts, these policy changes have been especially focused on reforming the city's outskirts, where unruly growth and conflicting governance arrangements have produced highly differentiated patterns of land tenure and water access. Analysis of why certain water policy imaginaries are ascendant today, how programs of reform are conceived of and by whom, and to what ends they proceed in this dynamic peri-urban frontier landscape is essential to an understanding of metropolitanization in the Global South more generally.

Yet, critical scholarship on Bangalore and elsewhere has largely neglected the articulations between new infrastructure policies and the local politics of peri-urban frontiers. This dissertation addresses this gap through a multi-sited ethnographic study of policy-making and practice affecting the governance of drinking water at Bangalore's peripheries. It investigates two case studies: (1) a program that sought to reengineer municipal management of citizen complaints, and (2) a project that aimed to extend piped water to residents financed, in part, through the debt market and upfront cash contributions from peripheral residents. The study draws on archival research, in-depth interviews, and participant observation to interrogate the underlying logic, material significance, and political contestation surrounding these projects in the peripheral localities of Bommanahalli, Byatarayanapura, and KR Puram.

This research argues, first, that reforms derive not only from the fiscal concerns of the current moment, but also from a preoccupation with disciplining the conduct of local government and citizens in line with market principles. Crucially, this is a regime of rule that is deeply inflected with the enduring legacies of state-led development. It is the concoction of the developmental approaches of yesterday and the pro-market approaches of today that marks the homegrown logic of neoliberalism in India. Second, for all the rhetoric purporting to have

overcome the incompetencies of a previous era, today's neoliberal interventions are marked by profound contradictions and limitations. A narrow focus on financial criteria, for instance, has resulted in a disconnect between the promise and material reality of water several years after new market-based policies and programs were instituted. Third, the grounded workings of new water policies cannot be understood without grasping the politics of the *peripheralized middle class*—a sizeable cross-section of the middle class that is propertied, but that nonetheless does not enjoy the same degree of tenure security as its elite counterparts. Through collective organizing, members of this social grouping contest and ultimately compromise over cost recovery-focused water pricing policies in order to legitimate their property claims in this globalizing and increasingly exclusionary city. The research thus reveals that the outcomes of water policies are contingent on historical geographies of struggle and insurgent claims to space in the places where they unfold. Overall, this dissertation elucidates how neoliberal hegemony in the urban waterscape is fluid and mutable—prone to becoming imbued with a diverse set of interests and to taking shape in and through a terrain of citizenship politics.

These findings, relevant for other rapidly urbanizing regions of the world, point to the need to rethink urban water praxis such that it valorizes diverse ways of knowing, anticipates the points of friction between water and spatial policies, and is sensitive to how and why institutionalized top-down schemes actually take root at the grassroots level.

To my parents, who instilled in me a sense of curiosity about the world

and

In memory of Joseph T. Ollapally

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List of Acronyms

ADB: Asian Development Bank
ALF: Alternative Law Forum, Bangalore
AusAid: Australian Aid Agency
BATF: Bangalore Agenda Task Force
BBMP: Bruhath Bengaluru Mahanagara Palike (Greater Bangalore City Corporation)
BDA: Bangalore Development Authority
BEL: Bharat Electronics Limited
BJP: Bharatiya Janata Party
CAF: Citizens Action Forum
BWSSB: Bangalore Water Supply and Sewerage Board
CITB: City Improvement Trust Board
CITU: Center for Indian Trade Unions
CMC: City Municipal Council
CMAK: City Manager's Association of Karnataka
CPI (M): Communist Party of India (Marxist)
DC: Deputy Commissioner
DMA: Department of Municipal Administration, Government of Karnataka
DYFI: Democratic Youth Forum of India
FIRE-D: Financial Institutions Reforms and Expansion (Debt market component)
FRBM: Fiscal Rectitude and Budgetary Management (an act)
GBWASP: Greater Bangalore Water and Sanitation Project
GOK: Government of Karnataka
GOI: Government of India
HMT: Hindustan Machine Tools, a public sector undertaking
IAS: Indian Administrative Services
IFC: International Finance Corporation of the World Bank
ITI: Indian Telephone Industries, a public sector undertaking
IT: information technology
KMRP: Karnataka Municipal Reforms Project
KIADB: Karnataka Industrial Areas Development Board
KUIDFC: Karnataka Urban Infrastructure Development Finance Corporation
KUWASIP: Karnataka Urban Water Supply Improvement Project
KWSPF: Karnataka Water and Sanitation Pooled Fund
MLD: million liters per day
NGO: non-governmental organization
OECD: Organization for Economic Cooperation and Development
PGRM: Public Grievance and Redressal Module
PLACE: Participatory Local Area Capital Expenditure
SPV: Special Purpose Vehicle
UDD: Urban Development Department, Government of Karnataka
ULB: Urban Local Body
USAID: United States Agency for International Development
TMC: Town Municipal Council
WSP: Water and Sanitation Program of the World Bank

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CHAPTER 1

Introduction: Governing a Water Crisis in the “City of the Future”

1.1. Retrieving Bangalore

After a staggering three years without an elected city council, Bangalore¹ finally went to the polls in March 2010. The right-leaning Bharatiya Janata Party trounced the opposition, sweeping 111 out of 198 city wards—thereby clinching its hold on both the state of Karnataka and its capital city. Once the celebratory dust had settled, an urban water “crisis”, by now an all too familiar trope, seemed to loom larger than ever, especially in peripheral areas (Deccan Herald 2010). Here, on the city’s urban frontier, piped water is still an ungraspable “mirage” for the majority (Times of India 2009).

When this research began in 2006, newspapers at the time, much like now, routinely carried reports about the city’s unending list of water woes, blaming them variously on an “inefficient and lethargic government” (Kumar 2006), “lack of bureaucratic or political will” (Times of India 2006), and a downright “abdication of responsibility” by government authorities (Shivanand 2007). Such statements merely echoed a standard narrative about Bangalore at the turn of the millennium: this was the city of “crumbling” infrastructure (Halarnkar 2004a), a technology hub “choking on its own success” (The Economist 2005) cursed with a government that just “doesn’t seem to really care” (Mishra 2005). Once a bucolic city of gardens and bastion for the scientifically inclined—famously dubbed the “city of the future” by India’s first prime minister—Bangalore had decayed into a pensioner’s nightmare, a paradise lost. Indeed, the confidence framing the late 1990s’ Dot Com boom had come to be displaced by a foreboding sense of doom about where the city was headed in the new millennium.

Yet, I was drawn to Bangalore and its troubled outskirts precisely because the pessimism and declensionist rhetoric that pervaded popular reports seemed incongruous with how the city is portrayed in influential circuits of development expertise as a “best practice” case in governance and water management (ADB 2006; World Bank 2004a). Banking upon a momentum of on-going efforts at remaking governance in the 1990s, at least five major international lenders² over the past decade have funded or provided intellectual input into a series of interventions to overhaul the pricing, institutional, and financing aspects of Bangalore’s urban services—its water sector, in particular. For instance, during the two months that I spent in Manila in 2007 at the Asian Development Bank (ADB)—the largest lender to the country after the World Bank—I was struck by how upbeat a myriad of specialists were about Bangalore’s governance experiments. In their view, the city’s experiences with public-private partnerships, participatory

¹ Although the official name of the city is “Bengaluru”, at the time of the writing of this dissertation, the anglicized name “Bangalore” was still predominantly used in the English print media. I thus retained the latter in the pages that follow.

² Asian Development Bank (ADB), Australian Agency for International Development (AusAID), Japan Bank for International Cooperation (JBIC), United States Agency for International Development (USAID), and the World Bank, including its Water and Sanitation Program (WSP).

governance, and water charges to transform “citizens into customers with rights”³ had much to offer other cities. From this vantage, Bangalore is not a crisis-ridden city so much as it is a trailblazer—a city whose reconfigurations between state, market, and civil society are to be closely watched, invested in, and quite possibly emulated.

At a very basic level, this dissertation sets out to disrupt both these narratives and retrieve Bangalore from their hegemonic hold. Not attempting to explain the city’s enduring water crisis *per se*, I seek instead to expose how particular discourses of crisis, inefficiency, and unruliness have been marshaled to justify a set of disciplinary interventions or “reforms” in municipal water governance. These are interventions that are characteristically *neoliberal* in their attempt to invigorate state practices with a market-based ethos, as well as to inculcate in subjects an ethic of financial responsibility and accountability via private sector-inspired mechanisms. As a globally reverberating political-economic project, neoliberalism has found expression in various aspects of statecraft in India’s cities over the last two decades. Bangalore, India’s so-called “Silicon Valley”, is a paradigmatic site for these transformations. The city’s water, in particular—long considered a service that must be socialized and harnessed by the state for industrial growth—has been targeted under experiments that seek to commercialize, rationalize, and privatize delivery, while simultaneously deepening certain forms of state and regulatory oversight. Few other resources garner as much attention: water is and always has been one of Bangalore’s more dire concerns given the lack of proximate surface supplies. Few other resources, moreover, enable such deep intellectual engagement with the political and ethical questions at the heart of neoliberalism and projects of state restructuring.

Little academic research to date has probed the restructuring of Bangalore’s water, the agents involved, and the implications of this process. Scholars attempting to come to terms with the politics of infrastructure and governance in this globalizing city more broadly have offered two sets of analyses until now. The first set inadvertently reinforces the assumptions of the prevailing narratives delineated above. Drawing on the contributions of Manuel Castells (1996), some scholars suggest that the “informational mode of development”—a privileging of high-technology sectors, a heightened flow of information through society, and the insertion of city-regions into the global economy—exacerbates internal socio-economic and infrastructural disparities. For Shirin Madon (1997), the “impact of information-based globalization” in Bangalore has been particularly detrimental for the region’s poor. Likewise, for Ivonne Audirac (2003: 23), Bangalore’s current trajectory of enclave-style development, wherein only a few islands of prosperity have continuous water supply, illustrates the “polarizing tendencies of the New Economy”. The city according to this storyline is becoming deeply divided as a result of economic restructuring—emblematic, if you will, of a “splintering urbanism” (Graham and Marvin 2001). To alleviate the city’s contemporary civic pressures, scholars have in turn heralded the promise of a civil society falling “outside the sphere of the state and the economy” (Madon and Sahay 2000: 177). Thus Madon and Sahay vest great hope in an ADB-funded project involving the use of information technology and citizen participation to enhance the efficacy and accountability of Bangalore’s city government.

I find this type of assertion to be problematic not only because of what Gillian Hart (2001) calls a crude “impact model” of power—wherein inexorable “global” forces are seen to

³ See <http://www.adb.org/water/actions/ind/bangalore-slums.asp>

descend upon the “local” as if it were a passive container—but also its remarkably ahistorical reading of space in Bangalore. As I show here, the city’s built environment and infrastructure networks have been differentially shaped *throughout* its colonial and post-colonial periods. Rather than overstate the effects of liberalization, then, the fragmenting of urban space and networks needs to put into historical perspective. Equally problematic is the uncritical promotion of civil society as a remedying “third force”, when, in reality, the boundaries between state, market, and society are far more fluid. As Mohan and Stokke (2000) have remarked, moreover, under a revisionist and kinder neoliberalism, critics on both the left and the right have converged on the emancipatory potential of citizen participation—and I would argue, more recently, on a normative, technicized framework underlying accountability. Borrowing from Mahmood Mamdani (1996: 19), I contend that this type of approach—“more programmatic than analytical, and more ideological than historical”—begs for an interrogation of participation and accountability in their “actual formation, rather than as a promised agenda for change”. This is a particularly urgent call in light of how commonsensical such notions have become via neoliberalized prescriptions for “good” governance.

A second, more critical set of approaches attending to Bangalore’s predicament responds in part to Mamdani’s (ibid) call by problematizing the rise of “extra-governmental” rule (Ghosh 2005: 4915) as a solution to the city’s infrastructural crises. Focusing on the entry of business leaders into urban policy-making via a public-private partnership known as the Bangalore Agenda Task Force (BATF), several authors have called into question the elite vision of citizenship rendered by such market-based models. In Lalitha Kamath’s (2006) analysis, for instance, the BATF relied on technocratic tools for urban reform that circumvented electoral politics and ultimately undermined the needs of the poor. Janaki Nair (2005: 345-347) further suggests that in its current metropolitan phase, “two broadly contending forces” are attempting to stake their claim to Bangalore. On the one hand are the more “muscular middle class associations”, the “newly renovated citizens, who are amply aided by a technocratic vision of change offered by the leaders of the new economy”, and on the other are “citizens-in-the-making”—the poor, for whom democratic politics are the only resource. In a similar vein, Solomon Benjamin (2008; 2004) draws a distinction between the “anti-politics” of neoliberal governance programs on the one hand—those that are rooted in sanitized visions of participatory planning that appeal only to the elite—and the subversive “politics by stealth” of Bangalore’s poor on the other.

This dissertation is situated broadly within this second set of critiques, but offers a different perspective. This is an ethnography of the workings of water reforms at Bangalore’s outskirts—specifically, the institutionalization of notions of market discipline, accountability, and citizen participation in urban water policy. But rather than demarcate a separation or even opposition between the “anti-politics” of institutionalized programs and the “politics by stealth” of the peripheral localities wherein such programs touch down, I underscore their dialectical or mutual constitution. In other words, this study takes as its point of departure the multiple *entanglements* between the institutionalized and technocratic tools of reform *with* the insurgent politics of the city’s fringes.

My focus on the city’s fringes—its “peri-urban interface”—is intentional in two ways. During the initial stages of my fieldwork, I found that the more I delved into the plethora of

internationally and domestically financed infrastructure projects in Bangalore, the more I discovered that the majority are directed at the city's peripheries where municipal water problems are particularly intractable. Concentrating on the peri-urban interface allowed me to understand how certain framings of crisis and failure provide the justification for a sanctioned set of reform "solutions".

But there was also another reason for focusing my research on the fringes. As Leitner et al. (2007: 311) put it, frontiers are metaphors, "liminal zones of struggle between different groups for power and influence—each seeking to expand their influence by shaping these zones on their own terms". Bangalore's periphery is a frontier landscape *par excellence*—a zone of rapid urbanization where the city's future is indeed in the making. This is an area where the boundaries between illegality and legality and exclusion and inclusion are entirely negotiable. Here, a discordant jumble of villages, "unauthorized" residential subdivisions, and luxurious "planned" complexes jostle one another for space and resources. It is also here, at the frontier, where various agents with historical relationships to the land are attempting to collectively engage state authorities to negotiate their belonging in the city—what, following James Holston (2008; 1999), can be referred to as practices of "insurgent citizenship". I use the frontier both to signify a zone of fluidity between city and hinterland, and as a trope to uncover how new water policy imaginaries gain traction; how they become interwoven with terrains of insurgent citizenship, and to what ends.

The dissertation examines two case studies implemented at Bangalore's frontier: (1) a municipal reforms program known as Nirmala Nagara and (2) the Greater Bangalore Water and Sanitation Project (GBWASP). The first project, funded by the ADB, aimed to "reengineer" various inefficient municipal functions including the management of civic grievances around water. The second, supported by the US Agency for International Development (USAID) and the World Bank, aimed to extend piped water supply to peripheral Bangalore using a market-based participatory financing framework. Breaking with over a century of state-sponsored waterworks and distribution projects, finances for this project were sourced, in part, through municipal bonds and cash contributions from beneficiaries for the cost of pipes supplying their homes.

With an eye to investigating the workings, articulations, and contestations of these projects, I pursue three sets of questions. The first concerns the epistemological orientation of these projects and the political-economic circumstances that made their emergence possible. What are the various rationalities, discourses, and technical practices that frame water supply as an arena for corrective action and who was involved? What systems of knowledge production validate their continued deployment? How can we understand their ascendancy at a specific historical conjuncture? The second is interested in the material significance of these projects for those affected. (How) do reforms affect the actual dynamics of water access and allocation? Who benefits and who is left out as a result? Finally, the third set of questions is concerned with the struggles and compromises that shaped these projects, both within the state and between citizens and the state. How do projects configure relations of power between and among citizens and state(s)? How are institutional and pricing reforms constituted and contested by insurgent politics at the peri-urban fringe?

This research argues, first, that reforms derive not only from the fiscal concerns of the current moment, but also from a preoccupation with disciplining the conduct of local government and citizens in line with market principles. Crucially, this is a regime of rule that is deeply inflected with the enduring legacies of state-led development. It is the concoction of the developmental approaches of yesterday and the pro-market approaches of today that marks the homegrown logic and staying power of neoliberalism in India. Second, for all the rhetoric purporting to have overcome the incompetencies of a previous era, today's neoliberal interventions are marked by profound contradictions and limitations. A narrow focus on financial criteria has resulted in a disconnect between the promise and material reality of water several years after new market-based policies were instituted. Finally, the grounded workings of new water policies cannot be understood without grasping the insurgent politics and associational practices of the *peripheralized middle class*. Through collective organizing, members of this social grouping contest and ultimately compromise over cost recovery-focused water pricing policies because they leverage their conduct of payment to legitimate their property claims and rightful belonging in the city.

The central contribution of this work lies in the fact that a vast majority of literature on the urban middle class in India has focused on how the “new” and more elite, English-speaking segments have profited from globalization and economic liberalization, but we know very little about how the more marginalized fractions of the middle class have fared, nor even how they perceive market-led change in the services they depend on most. In making a fresh contribution to the literature, I contend that the peripheralized middle class is a social grouping we must take seriously if we are to understand the future shape of cities everywhere. I use the term “peripheralized middle class” to describe the lower and vernacular segments of the middle class that inhabit the informal and poorly serviced fringes of Bangalore. Unlike terms such as the “middle class poor” or the “lumpen middle class” (Bayat 2007), my use of the term “peripheralized middle class” refers to a cross-section that is propertied, but that nonetheless does not enjoy the same degree of tenure security and material benefits as the elite middle class. This liminal class position—of being propertied yet without secure tenure, of being moderately well-off yet excluded from the substantive aspects of urban citizenship—provides the conditions of possibility for a specific kind of politics to emerge. This is a politics that, in turn, helps to explain how market-based water reforms are encountered at the grassroots. I show that the bid to transform citizens into customers with rights by charging peri-urban dwellers unprecedentedly high fees gains traction not because it produces economically “responsibilized” subjects as some scholarly strands might interpret it, but because peripheral agents align their goals of securing the right to live in the city with a broader one for cost recovery. As the Marxian philosopher Antonio Gramsci (2000 [1971]) put it, hegemony constitutes the everyday processes whereby the subordinated identify their diverse interests with a more universalizing agenda. Overall, this dissertation elucidates how neoliberal hegemony as it relates to the urban waterscape is fluid and mutable—prone to becoming imbued with a diverse set of interests and to taking shape in and through insurgent claims to space.

The broader significance of this work lies in the ubiquity of peri-urban development across the world. The United Nations Habitat (2008) estimates that on average five million residents are added to developing cities every month, mostly on their outskirts. Urban sprawl as witnessed in much of Asia today is characterized by higher-end suburban development catering

to a “world-class” sensibility on the one hand, and more affordable lower-to mid-range settlement—the type that I investigate in the pages that follow—on the other (UN Habitat 2010). Various terms, “irregular”, “unauthorized”, “illegal”, “informal”, and in some post-colonial contexts, “spontaneous” or “auto-constructed”, the latter is indeed the mode through which most shelter is secured in most of the developing world. Importantly, as evidenced by research from Latin America to the Middle East to South Asia, informality is not only the domain of the poor or of slums (see especially AlSayyad and Roy 2004; Bayat 2007). Rather it is itself an internally differentiated phenomenon, and one that increasingly applies to middle-income groups.

To finance infrastructure in informal areas, fiscally constrained governments are turning to the private sector, the debt market, and consumers themselves. As the private sector’s reluctance to enter less profitable areas and popular resistance to privatization have been increasingly borne out by recent history⁴, it is financing from the market and the propertied—i.e. those that can be seen as potential “stakeholders” according to project rhetoric—that are likely to be banked on in the foreseeable future. When the unauthorized peripheries are overlain with neoliberal reforms and their new market-mediated forms of subjectification, the limits and possibilities of such policies come into sharp relief. This pages that follow aim to expose these policy outcomes, and the processes that set them in motion.

In sum, the stakes for understanding the politics of water reforms and their imbrication with the politics of peri-urban frontiers are high given the types of geographic, socio-economic, and policy trajectories cities everywhere are witnessing. It is imperative that we provocatively question the rationales, discourses, and significance underlying such trajectories, not only for invigorating theoretical debates, but also for informing progressive praxis. Before fleshing out more fully the contours of my argument and my methods, I turn first to the framework of power that I develop and the literature that informs it.

1.2. Relational Flows of Power: Gramsci and Foucault in Conversation

Gramsci and Foucault ask us to build bridges between wider questions of legitimacy and hegemony and specific, subjectifying practices and techniques of power...The two theorists pose difficult questions around what can be concluded from sites of resistance to socially unjust changes in the water sector (Ekers and Loftus 2008: 713).

Empirically and theoretically, at the heart of this study lies an analysis of how relations of power are enacted at multiple scales and across multiple spaces. I understand power relationally for practical reasons: the price paid for water, the debt incurred on building water infrastructure, even the quantity and quality of water negotiated in the city are the result of asymmetrical interactions and relationships of power distributed unevenly in space (Massey 2005). In the profusion of critical social science literature on power, politics, and water in recent years, two

⁴ Even the most ardent supporters of privatization acknowledge the private sector’s disappointments. An influential report on infrastructure reforms written by Ioannis Kessides (2004: 6) of the World Bank states “as with all economic elixirs, privatization has been oversimplified, oversold, and ultimately disappointing—delivering less than promised”. USAID (2005) has also recently admitted that private sector participation in water and sanitation has not been as forthcoming as was expected in the 1990s.

main theoretical traditions that parallel those in the wider scholarship on neoliberalism can be distinguished: one that is broadly Marxian and another that is broadly Foucaultian.

First, urban political ecologists have typically viewed the flow of water through space via a Marxian lens that combines political-economic analysis with attention to the history and materialities of water. Focusing on the dialectical moves between creation and destruction, accumulation and dispossession, and nature and society explicated by the likes of Harvey (1996) and Smith (1984 [2008]), scholars such as Swyngedouw (2004) and Gandy (2002) have shown how inseparable water is from the rise of modernity and capitalist urbanization. Research taking on the neoliberalization of water, furthermore, has focused on the contingent, path-dependent, and contradictory workings of water reforms on the ground (e.g. Bakker 2003; Sangameswaran 2009; Smith 2004). This body of research draws, in particular, from theoretical contributions about neoliberalism in its “actually-existing” formations rather than as a monolithic and coherent form of rule (e.g. Larner 2000).

Others, such as Michael Goldman (2007), draw on Gramsci’s ideas to shed light on the making of globalized hegemonic and counter-hegemonic water regimes. He suggests that in the current moment, a seemingly diverse set of institutions including NGOs, transnational corporations, and research analysts have converged on a global consensus for market-oriented water reform—one that insists that private firms can do no worse than the public sector, and will likely do better.⁵ Yet, the transnational network through which such hegemonic discourses around water are reinforced also foments anti-privatization struggles; crucial, therefore, as Peter Evans (2008) suggests are the alliances at the global level that act to counteract the hegemony of pro-privatization arguments.

I find this set of broadly neo-Marxian perspectives useful because it permits insight into how patterns of water access were shaped throughout Bangalore’s late colonial and post-colonial history. It also aids in an understanding of the political-economic forces that precipitated a market orientation of India’s water sector in the 1990s. Marxian narratives, however, generally do not account for how relations of power are normalized in everyday routines. Whereas Gramsci insisted that hegemony is consolidated and contested in the day-to-day lives of people through a nexus between state and civil society, few studies delve into the reproduction of hegemony in the more mundane aspects of the urban waterscape (for an exception see Loftus and Lumsden 2008). For example, the relations of power immanent in water bills and in the attempted constitution of the subject through discourses of financial responsibility have typically not been probed in this literature.

A second strand that can be distinguished, then, is Foucaultian—one that examines the productive power of the many quotidian discursive and practical techniques that govern subjects and their actions in the waterscape. For several urban scholars, it is Foucault’s analytic of governmentality, a neologism for “governmental rationality”, that is of greatest explanatory value in deciphering the regimes of knowledge and the ensemble of “technologies” that structure human conduct (e.g. Kooy and Bakker 2008b; von Schnitzler 2008). The art of government, as

⁵ Note that although Goldman’s characterization of the global water “consensus” might have been true of the 1990s, today’s emerging consensus is marked by much greater caution about privatization and an insistence on reforming the public sector through notions of the New Public Management.

Foucault famously put it, implies “the conduct of conduct”—the practice of structuring the behavior of subjects so as to achieve desirable objectives. Importantly, the art of government is not primarily located in what we have come to call “the state”, but rather manifests in a host of capillary nodes dispersed throughout society. Technologies of government, moreover, while designed to achieve sensitive political goals, are often represented and validated by an array of seemingly indisputable scientific truths (Gordon 1991; Miller and Rose 2008 [1991]). Thus von Schnitzler (2008) argues that pre-paid water meters, now widespread in Johannesburg, were conceived of within a context of economic liberalization as devices to remedy the “culture of non-payment” among Black South Africans. Rather than seeing them as a neutral means to an end, pre-paid meters are governmental technologies that are deeply invested with the historical and political legacies of late apartheid. As I argue here, the institution of a new cash contribution policy to fund the capital costs of water in Bangalore, and the specific disciplinary measures enacted in the event of non-payment, are similarly couched in a language of scientific impartiality. A close historic reading, however, reveals that cost recovery measures emerged at a very specific political-economic conjuncture in Karnataka, and belie a set of cultural preconceptions about the peripheralized middle class.

Recently, scholarship on neoliberalism has sought to bridge Marxian and Foucaultian approaches in order to come to terms with both macro and micro aspects of power, as well as to provide nuanced critique on the reworking of relations of rule. The productive tensions between governance and governmentality—between Marxian accounts of economic transformation and Foucaultian attention to market-mediated subjectivity—may offer more robust accounts of neoliberalism than any one approach. Wendy Lerner’s (2003: 511) agenda-setting piece on the need to apprehend broader political-economic changes and the reconfiguration of the state *in conjunction* with “why people (sometimes) act as neoliberal subjects” has been influential in this regard. Ekers and Loftus (2008: 698) further argue that it is a *rapprochement* between Gramsci and Foucault that enable a purchase on the “everyday relations to water as being imbricated in the operation of hegemony and in the maintenance of subtle forms of rule”. The resonances between Gramsci and Foucault, despite their differences, are profound, with both assuming a relational nature of power, and both treating resistance as existing within relations of power and not outside of it. It is thus that Ekers and Loftus (ibid) call for a research approach to water politics and power that leverages the productive tensions between Gramsci and Foucault and that establishes “connections between the specificities of power and broader questions around hegemony” (ibid: 710).

Some critical social science scholars have taken this marriage forward in an explicit manner—although more often with respect to development writ large and not explicitly to water. Tania Murray Li (2007: 25), for instance, combines a Foucaultian lens on governmental expertise and techniques that embody “the will to improve” Indonesia’s highlanders, with a Gramscian approach that attends to “how and why particular, situated subjects mobilize to contest their oppression”. The intersection between what she terms a Foucaultian “practice of government” and a Gramscian “practice of politics” is her principal subject, one that she claims is inspired by, but nevertheless destabilizes, the totalizing “anti-politics” framework of James Ferguson (1990).

Li's influence on my own work must be acknowledged here. I am persuaded by the notion that a governmentality framework can be "part of an analytical toolbox" as Rose et al. (2009) suggest—good for examining the rationalities of rule but less useful in deciphering "how programs are actually implemented" (ibid) or the political agency of subjects. There are, however, some theoretical and methodological caveats. Although I appreciate Li's (2007) attention to the reciprocal relation between the practice of government and the practice of politics, the richness she accords to the latter through detailed ethnography of the Indonesian villagers targeted for "improvement" is not matched by her account of the former. That is, the voices of the myriad agencies, bureaucrats, and experts that steer programs of improvement are largely unheard, except for through document analysis. This methodology does not provide a sufficient sense of the guiles and frustrations of the so-called programmers themselves, and indeed, the delicate operation of hegemony *among* experts. As a result, it is difficult to get a sense from her account of the complexity and multiple layers of the Indonesian state. As Bebbington (2010: 231) puts it, it is not unlikely that "government itself is the world that some programs seek to transform"; relations *between* levels of the state might therefore must be assessed as much as those between the state and its citizens.

In this dissertation, I engage both Marxian and Foucaultian strands to attend to the *whys* and *hows* of relations of power in the context of neoliberal water reforms in Bangalore today. First, I draw on both theoretical traditions in a historical reading of Bangalore's water and spatial development. Second, turning to the contemporary moment, I complement the notion of hegemony with that of governmentality to illustrate both the broader political-economic transformations in Karnataka in the 1990s, as well as the specific market-based governmentalities through which relations between levels of the state and between citizens and the state were targeted. Third, I draw on key Gramscian conceptualizations of articulation and agency to demonstrate how subjects—in this case, the peripheralized middle class—both resist and partake in projects of their own rule. My use of the term "articulation" here follows Stuart Hall (1986)'s Gramscian reading of political change and struggle. For Hall, articulation implies a linkage or connection between ideological, cultural, and political elements at a particular historical conjuncture, but one that is not absolute or essential for all time. Here, I am interested in how market-oriented reform transpires not according to particular pre-determined outcomes, but as a result of its contingent interlocking or articulation with the politics of the periphery. The fluid nature of neoliberal hegemony is such that subjects are recruited into projects of their own rule not because they are duped, but because emergent interests are harnessed through compromise, consent, and coercion.

In this way, I join the existing literature in showing that neoliberalism is not a coherent end-product, but rather evolves through a parasitic relationship with existing political, cultural, and social formations (Peck et al. 2009). The approach taken here thus accords analytical priority to the contested processes through which neoliberalism becomes the established system of rule in a particular time and place. Before discussing my methods, I expand on the three main components of my dissertation that are informed by a theoretical marriage between Foucault and Gramsci.

1.3. The Urbanization of Water and the Production of Difference

“The history of cities”, as Matthew Gandy (2002: 22) pithily suggests, “can be read as a history of water”. To trace the flow of water across urban space—to map the patchy ways in which it is available in copious amounts in some areas while it remains elusive in others—is to illuminate the production of spatial difference and the complex, historically sedimented land relations that inflect post-colonial societies. The notion that difference is fundamentally *produced* moves beyond environmentally deterministic, ahistoric explanations that locate uneven patterns of water access in “natural” forces—the topography, the rate of population growth, the limited quantum of supply, for example. Instead, to say that difference is produced is to acknowledge the ideational and discursive dimensions and political-economic imperatives that give rise to unevenness over time—and, in turn, contribute to normalizing its existence.

It is widely claimed that Bangalore’s naturally undulating terrain is the reason why some parts consistently suffer from poorer water pressure while others enjoy seemingly continuous supplies. It is also acknowledged that the city, currently estimated to be home to nearly ten million people, is fast depleting all of its existing surface and ground water supplies, and that the state-owned utility sources its supply almost exclusively from the Cauvery River located some 100 km south of the city. It is true that Cauvery water is highly unevenly distributed in the city, and that topography plays a role, but far less frequently is it realized that the material differences underpinning Bangalore’s waterscape are inextricably connected to a history of colonial and post-colonial planning through which difference has been reproduced and managed by the state over time. My research draws on archival records to elucidate enduring spatio-political historical legacies in Bangalore’s present-day waterscape. I contend, following a political-ecology tradition, that this history is an invaluable starting point to grasping how neoliberal water reforms articulate and take root in urban space.

The dissertation traces how the city expanded its frontiers and urbanized and domesticated its water supply over the last century. It maps out the urbanization of water from a period of colonial textile-led capitalism, to public sector-driven heavy industrialization after independence, and finally to an era of technology-led liberalization at the end of twentieth century. The study historicizes not only the planned, formal projects of infrastructure development—the high modern waterworks schemes on the Arkavathy and Cauvery rivers and city improvement projects throughout the 20th century—but also the informal or extra-legal forms of service delivery and settlement that evolved *in tandem*. I argue, following Roy (2003a), that these informal modes of accessing land and water do not lie outside the state and its planning apparatuses, but have been, and continue to be, deeply imbricated with state formation.

I show, first, that colonial projects of rule in the late 19th century sought to inculcate a sense of hygiene and morality in the insalubrious “natives”. The mentalities underlying these projects of rule essentialized differences between colonial and native spaces by claiming that differences lay intrinsically in cultural, racial, and religious factors. Colonial projects were claimed to correct for these innate tendencies through what Foucault (2003 [1979]) termed the domain of “biopolitics”. But as Gyan Prakash (1999) reminds us, colonial biopolitical interventions—the grid alignment of urban space, centrally treated piped water, and sanitary sewers, for example—largely benefited the city’s elite non-native populations in “planned” pockets. This contradiction set in motion the peripheralization and informalization of

Bengaluru's indigenous *pettah* [locality] at the older heart of the city. An inherited logic of planning in the post-independence era reproduced patterns of spatial differentiation found at the core at the city's outskirts throughout the 20th century.

As the city expanded to pursue public sector-led industrialization from the 1960s onwards, unauthorized "revenue layouts" with no access to modern infrastructural amenities began to crop up on the peripheries alongside so-called "planned" urban extensions. These unauthorized layouts, formed by subdividing agricultural land without the requisite permissions, catered to various subordinate groups—including, importantly, a subordinated public sector bourgeoisie that partook in the making of Bangalore as India's "Science City". Thus began the formation of what I am calling the *peripheralized middle class*—a grouping that wanted to realize the dream of home ownership, but was unable to do so via the developmental state and its parastatal wings alone. Instead, it secured this dream through collusions with local village governments, landowners, and the district collector—local state and non-state agents that were simultaneously attempting to consolidate their authority vis-à-vis the developmental state by abetting in these illegalities. Because the city's parastatal authorities did not cater to unauthorized layouts, water access has *always* been highly uneven at the city's outskirts. Rather than being provided upfront, water supply in unauthorized areas has typically been negotiated with an array of local government entities and "mafias". What we see therefore is that the post-colonial "state" itself has always been deeply fractured and internally inconsistent. In attending to the heterogeneity of the state, I adopt a Gramscian perspective that eschews an understanding of the state as "an actor with a unified intentionality" (Moore 1993: 381).

Turning my gaze, finally, to the contemporary moment, I seek to underscore what is *new* about the nature of settlement irregularities and water access at Bangalore's periphery. What are the ruptures and continuities that mark the continued production of spatial and infrastructural inequities in the city today? I argue that what is *new* about the formation of the frontier is not that an internally inconsistent state abets in its development, nor that the peripheralized middle class is even implicated. Rather, what is new concerns the form, intensity, and logic of unauthorized development. In addition to the ubiquitous revenue layout that accounts for 90% of residential settlement at Bangalore's periphery, today, higher-end corporate consumers are also involved in unauthorized development and the unregulated sourcing of groundwater. In the contemporary moment, however, some illegalities are deemed more illegal than others. The illegalities of the peripheralized middle class are being harshly penalized while those of higher-end, transnational violators are downplayed. A key contribution of this ethnography is to show how struggles by the peripheralized middle class over tenure claims in this globalizing and increasingly exclusionary city become entwined, quite unexpectedly, with neoliberal pricing reforms in the water sector.

1.4. Market Mentalities, Financial Brokers, and Techno-politics

With its multiple land tenure regimes, its competing sanctioning state entities, and its clandestine water and land dealings, Bangalore's urban frontier is indeed an opaque and messy terrain. What is fascinating, though, is not so much this opacity itself, but the attempt to discipline and render the frontier intelligible through particular rationalities and micro governing practices. The study sought to examine how notions of "good" governance at the turn of the

millennium—specifically the rhetorical focus on enhancing local government accountability in service delivery—were instituted at Bangalore’s unruly outskirts through a municipal reforms program known as Nirmala Nagara Yojane [‘clean city program’]. Via calculative rationalities that aimed to retrofit local government with a “customer-service mentality”, this was a program that bore a strong resemblance to the Bangalore Agenda Task Force, a public-private partnership created by pro-industry Chief Minister SM Krishna to “reengineer” the city’s governance with the expertise of its technology leaders.

My focus was on one governing technology, “e-grievance redressal”, which sought to systematize the range of possible complaints citizens could lodge about water supply and other municipal services through an online interface. By collating aggregate data, the e-grievance system generates grievance statistics that are purported to be an authentic representation of reality—a practice that Timothy Mitchell (2002) calls “enframing”. By forging a distinction between the “real world” and an “objective” representation that seeks to capture it, enframing practices such as e-grievance reports acquire an extraordinary air of certainty. On the basis of such reports, the system sets fixed timelines by which local engineers have to respond to grievances or else face disciplinary sanctions. A record of how many complaints are resolved within the stipulated timeframe is then transferred to higher levels of the state government and used to rank participating municipalities. Such contractualized relations of accountability, Nikolas Rose (1999) suggests, has typically followed the erosion of the welfare state in advanced liberal democracies. That is, neoliberal governments no longer consider citizens as passive recipients of welfare and entitlements, but call on them to play a proactive role in the services they obtain through established contracts between individual “client” and “service provider”. The appeal and scale-up of the e-grievance system throughout Karnataka is premised, moreover, on its amenability to “governing at a distance” (Miller and Rose 2008 [1991]: 41)—its potential to instill calculative logics in lower-level bureaucrats to conduct themselves in consonance with a broader agenda for governance reform.

Based on detailed fieldwork in Bangalore’s peripheral municipalities, I show that the impersonal interface of the e-grievance system underestimates the symbolic and performative aspects of accountability that are enacted in everyday, face-to-face interactions with elected representatives and frontline functionaries. The element of state spectacle entailed in confrontations between citizens and the state, for instance, is fundamental in reproducing the imaginary of the local state and, in turn, its legitimacy. The e-grievance system, on the other hand, undervalues the *affective* relations that develop between citizens and elected representatives. This is especially the case for peripheralized middle class residents that hail from the same socio-economic and linguistic background as the functionaries to whom they make their appeals, a phenomenon that been referred to as the “porous” bureaucracy (Benjamin 2004) and its “feet of vernacular clay” (Kaviraj 1984). I argue that rather than enhancing *downward* accountability—that is, from the local state to its citizens—the e-grievance system induces far greater *upward* accountability of the local state to higher levels of the state apparatus. In other words, it is leveraged as a means for higher echelons of the state apparatus to monitor and surveil local governments. Following Akhil Gupta (2005: 29), I contend that it is critical that we tap into locally embedded meanings of corruption/accountability—meanings that hold salience in the everyday lives of people—rather than vest so much of our hope in “internally mobile narratives

of transparency and efficiency” if we are to comprehend what really drives state institutions to be responsive.

I find that far from producing self-activating, locally accountable government actors, the deployment of neoliberal governmentalities in Karnataka has entailed a contradictory double move. On the one hand, a variety of dispersed governing modalities point to the decentralization of state power. On the other hand, the virtual disarticulation of these modalities from the actually existing everyday relations of accountability means that local government is increasingly beholden to and dependent on dictates emanating from the state apparatus and its extra-governmental partners. The tendency to centralize relations of rule between levels of the government is not unusual for Karnataka: indeed, the state has a long history of creating state-owned parastatals (for water, land, industry, etc.) that lack local representation. What this shows, however, is that extant political and cultural formations may be cobbled together with neoliberal forms so as to reproduce old hierarchies and relations of power. The study elucidates, moreover, that this is not an anomalous situation: the concomitant decentralization and centralization of power is a recurring theme in internationally supported neoliberal water and municipal reform agendas more generally.

The study contextualizes this simultaneous decentralization/centralization phenomenon by tracing a new political-economic conjuncture in the mid-late 1990s following the downsizing of the developmental state. This was a period widely perceived as a fiscal crisis across Indian states wherein contingent forces came together to focus attention on financial discipline and local resource mobilization in cities and their water sectors. I show how this process ultimately thwarted contemporaneous ideological projects for political decentralization. By appearing commonsensical and beyond reproach, specific policy scripts issued during this period presented a TINA (“there is no alternative”) vision of commercial infrastructure development and reform in the country. Tapping into capital markets—the use of long-term debt or municipal bonds—to finance water supply instead of intergovernmental fiscal transfers was hence perceived as the only solution to India’s infrastructure crisis, along with higher user charges and privatization where appropriate. Borrowing from the market, however, carries with it stringent repayment clauses and mechanisms to divert municipal cash flows towards repayment. It also necessarily opens up cities to new forms of financial scrutiny.

The dissertation thus combines attention to neoliberal techno-fixes like e-grievance redressal with a focus on what I suggest is the growing *financialization* of the urban water sector—a term that connotes the creeping influence of capital markets, their intermediaries, and processes in contemporary economic and political life (Pike and Pollard 2010; Sayre 2008). It shows how pivotal one quasi-state financial intermediary, the Karnataka Urban Infrastructure Finance Development Corporation (KUIDFC), has been to this process, particularly in leveraging the bond market and channeling international loans. As an entity that is simultaneously part of yet distanced from the state—that can simultaneously wield “the might of government”⁶ yet speaks the language of business actors—KUIDFC poses new challenges to how we imagine the state (cf. Ferguson and Gupta 2002). It is a new, rescaled form of contemporary statehood, exemplifying what Brenner (2004) might call a “new state space”.

⁶ Interview with ex-KUIDFC official on August 1, 2007

Indeed, KUIDFC represents a financialized state space that is playing an increasingly decisive role in urban water policy-making today.

Through in-depth interviews with senior bureaucrats and technocrats at KUIDFC, the study sought to illuminate the epistemological orientation and machinations of these financial brokers. It illustrates the modalities through which they “render financial” (cf. Li 2007); the inscription devices through which financial tools like bonds and beneficiary capital contributions are calculated and operationalized in order to build cost recovery into the water sector (Rose and Miller [1992] 2008). Acknowledging that programs of rule should not be accorded excessive coherence, however, the study also sought to draw out the nature of multivocality and contestation *within* programs of rule and *among* programmers. As Foucault (1994: 142) noted, “every relationship of power implies, at least in potentia, a strategy of struggle”. Thus I show that the process of enrolling allies into and establishing consent for the market-based approaches embedded in the Greater Bangalore water project was fraught with contestation erupting from both within and without. Unable to win consent for water privatization because of dissent from the water board itself, the project ultimately went ahead in a diluted form. The ethnography thus shows how fluid the establishment of hegemony ultimately is, wherein programs of rule more often than not are shaped and constituted by the very appropriations and messy practices that they engender.

1.5. The Insurgent Politics of the Peripheralized Middle Class

A central concern of this dissertation is to unravel how neoliberal water reforms articulate with and through the sedimented history and politics of the places in which they unfold. Despite their depoliticizing rhetoric and truth claims, neoliberal programs of rule do in fact become politically charged arenas in which relations of rule become reworked and reassessed. We therefore have to understand how market-based reforms become embedded in a terrain of civic life and meaning. In the case of the reform projects studied here, it is to the situated practices of the peripheralized middle class that we must turn.

Most existing studies have neglected the study of the more marginalized segments of the middle class, focusing instead on what has come to be called India’s “new” middle class or its “new rich” (e.g. Fernandes 2006). Yet, the “new” or more elite middle class continues to comprise a numerical minority not only with respect to the wider Indian polity, but also *within* the middle class. In reality, India’s middle classes are far more heterogeneous. The city’s lower and indeed *middle*-middle classes are also more numerous than the more elite, securely propertied, globally travelled, primarily English-speaking middle class minority in Bangalore. It is the subordinated fractions of the middle class that are likely to be the main target of a variety of infrastructure projects in the foreseeable future. After all, these are the groups that inhabit poorly serviced settlements in which the bulk of infrastructural and reform interventions will take effect in the years to come.

The study thus makes a new contribution to the existing literature by elucidating the stories and positionalities of the peripheralized middle class: its linguistic composition, its occupational profile, reasons for why its members chose to settle in Bangalore’s poorly serviced peripheries, its class consciousness, and its associational politics. We will meet, for instance,

Lakshman Kumar, a Communist Party cadre and civic organizer who rallied senior officials to downwardly revise the cash contribution policy for the Greater Bangalore water project; Shama Rao, an indefatigable public sector retiree and association president who always pays his taxes on time and ran for ward elections; and Agnes Perreira, a Saudi-returned nurse who personally tracks all local government expenditures and revenues on water on her living room wall. All these individuals and the neighborhood associations they represent inhabit informal settlements with dubious legal standing—places with deplorable municipal services that are dangerously flood-prone. Although propertied, they are not contenders for India’s much-hyped “new middle class”, but they are also by no means “the poor”—certainly not relative to standards in urban India.

I show that the politics of the peripheralized middle class differ substantially from that of the so-called “new” middle class. For example, rather than directing their frustrations at the poor and “unclean” elements of the city as studies on Delhi and Mumbai’s “bourgeois environmentalists” suggest is true of the elite middle class (e.g. Anjaria 2006; Baviskar 2002), Bangalore’s peripheralized middle class exhibit far more antipathy at the wealthy. Highly sensitive to their own marginal positions vis-à-vis the globalizing elite, the ethnography found that members of the peripheralized middle class are wary of the all-too prominent moorings of Bangalore’s new economy—the “IT sector”, “call center people”, “big people”, “big apartment buildings”, and the “richer classes”, for example—particularly when it came to the “wasteful” water consumption of the new rich. These class subjectivities, in turn, played out in their associational strategies and the contestations over new water policies.

My findings on the fluid, multiple, often contradictory, strategies and positionalities of the peripheralized middle class complicate the scholarship on middle class associationism in India. Contrary to common assumptions in the literature about the distance that associations maintain from electoral politics, the ethnography found that the strategies of the peripheralized middle class blur lines between the more “civilized” technocratic activities found in the associations of civil society *and* the messy terrain of electoral maneuverings found in political society. This blurring results in an assemblage of practices resembling what James Holston (2008) calls “insurgent citizenship”, characterized not by acts of radical resistance, but by acts of subversion that seek to extend treatments afforded to “those city people”—i.e. those living in Bangalore’s core—to the periphery. One pertinent example is what I call the “conduct of payment”—the act of furnishing a litany of taxes, fees, and charges to the local state—in the expectation of being regularized and authorized by the state. Like Holston, I apprehend this vision of rights as inextricably bound to propertied notions of citizenship.

I argue that the conduct of payment lies at the heart of how we decipher the politics of the peripheralized middle class, and in turn, how neoliberal water reforms are negotiated and take root. The study shows that a number of people at the periphery did indeed come forth with upfront cash payments as part of the Greater Bangalore water project, often contributed collectively following persuasion by their neighborhood association leaders. I found that despite the disturbing equity aspects of these payments—the fact that in many cases upfront payments comprised a significant fraction of annual income—people came forth with payment because they held the expectation of being deemed “legal”. In other words, because their tenure status was in question, the act of paying for water was thought to fend off threats to their legitimacy.

The fact that there are critical intersections between water and land policy at the peri-urban interface must thus be accounted for in any future water reform agenda.

By delving into the situated practices of the peripheralized middle class, including their particular forms of associationism, this dissertation provides a lens into how neoliberal policies vis-à-vis infrastructure provision intersect with existing social, cultural, and class formations. In the current moment, market-oriented water reforms articulate with neighborhood struggles around land tenure, as well as over new socially regressive land policies that are directed at the peripheralized middle class. It is precisely because of these multiple entanglements that market-oriented water reforms gain traction in cities like Bangalore today.

1.6. Methodological Considerations in the Study of Policy and Practice

This dissertation is a critical ethnography of municipal water reforms in peri-urban Bangalore. It interrogates both the production of policy by experts, as well as its co-constitution with practice—that is, how policies play out in particular arenas, and in turn, how practice remolds policy (Mosse 2005). The act of doing and writing a critical ethnography necessarily entails iterations between theory and method. Theory is used to guide the logic of gathering data—the selection of questions, cases, and sites for example—and is also used to interpret observations in the field of what people say and do in their own time and place. Conversely, insights from the field are used to extend or reconstruct theories and concepts (Burawoy 1998).

The ethnographic approach adopted here insists on interconnections between multiple sites: the hallways of development finance from Manila to Bangalore, the offices of bureaucrats and consultants, the field stations of water engineers, the filing cabinets and complaint desks of municipal governments, and the neighborhoods of peripheral Bangalore. These are all interlinked nodes in socially produced space that participate in and shape the discourses and materialities of reform (Hart 2004). Multi-sited ethnography, as Marcus (1995: 99) defines it, is “an exercise in mapping terrain”, but one that does not claim to portray “the world system as a totality”. Rather, multi-sited ethnography implies that “any ethnography of a cultural formation in the world system is *also an ethnography of the system*” (ibid, emphasis added). This, then, is a particularly apt approach to the study of policy and practice in which the goal is not only to specify the effects of particular projects, but also the globally mediated policy processes, calculations, and intrigues that set it in motion.

The object of study in a multi-sited ethnography is necessarily “mobile and multiply situated” (ibid: 102). What you might lose from not having a prolonged, intimate engagement with any one village or city neighborhood, you gain from an examination of the trans-local movement and translation of particular objects, metaphors, and stories. In Marcus’ (ibid: 106-110) advice, such ethnography should use the “follow the...” technique: follow the people, follow the metaphor, follow the thing, follow the conflict.

In many ways, this study followed how macro-concepts such as “reform”—and its signifiers of accountability, participation, and financial discipline—come to be imbued with particular meanings and operationalized in specific ways in contemporary Bangalore. But this study’s multi-sited and multi-scaled ethnographic strategy also tracked the movement of a very

concrete object based on the advice of Peter Robertson, a Senior Capacity Development Specialist at the ADB: “follow the money”. Robertson, an Australian national who typically dressed in Pakistani clothes because of his prolonged engagement with development loans to that part of the world, was one of the more interesting and subversive characters I met at the ADB. In an institution inclined to view the world through narrow engineering and economics lenses, Robertson occupies a relatively marginalized, yet still influential, position in its organizational hierarchy: he is a senior specialist in the Governance wing under its Regional and Sustainable Development Department.⁷ With a wealth of experience in disbursing loans and working with sovereign and local governments, Robertson provided me with the following advice one day when I told him that I was interested in unpacking both reform policy-making and its outcomes with respect to urban water:⁸

Follow the money when you want to analyze the system. Map the relations of government. Where is decision-making actually happening? Where are funds flowing? What is the shape of the whole structure? What currently exists which directly influences services to be developed? Where do elected representatives have influence? Where can citizens claim space?

Coming from an institution not known for its self-reflexivity—certainly not in comparison to the World Bank from where more internal critique emanates—I found Robertson’s advice refreshing. As an ethnographic tactic, “following the money” is indeed a multi-sited exercise. Money in the form of loans, grants, interest rates, guarantees, bonds, consultant fees, and cash contributions to building water infrastructure courses through a multi-scaled network of actors, sometimes encountering a stubborn knot or sometimes simply evaporating, much like the flow of water through a networked urban grid.

And so I did: I followed the money from the ADB housed in Manila’s plush business district to the Karnataka Urban Infrastructure Finance Development Corporation (KUIDFC) in Bangalore, a financing intermediary that manages external loans. I followed the money into the offices of consultants housed in the water board’s head office on Bangalore’s busy KG Road. I followed the money into foundations and NGOs charged with innovations in participation and accountability as part of the projects that I studied. I followed the money collected from households in Bangalore’s peri-urban localities through the industrious efforts of neighborhood associations. I followed the money from project beneficiaries to local water depots and local

⁷ The Governance wing falls under Regional and Sustainable Development, which in turn falls under the Vice-President for Knowledge Management and Sustainable Development who reports directly to the President of the ADB. There are four other Vice-Presidents: Operations I, Operations II, Private Sector and Co-financing, and Finance and Administration. Operations I and II handle regional loans to South Asia, East Asia, South Asia, and Central and West Asia (<http://www.adb.org/About/management-staffing.asp>).

⁸ He provided this advice in the context of a conversation we were having about a presentation we both attended earlier that week on the ADB’s role in fostering accountability in local governments. At the presentation, Robertson had strongly disagreed with another professional’s assessment that politics, political issues, and politicians writ large thwart the achievement of accountability. He suggested that such a statement was indicative of the stigma attached to (or unwillingness to recognize) political-economic issues at the ADB.

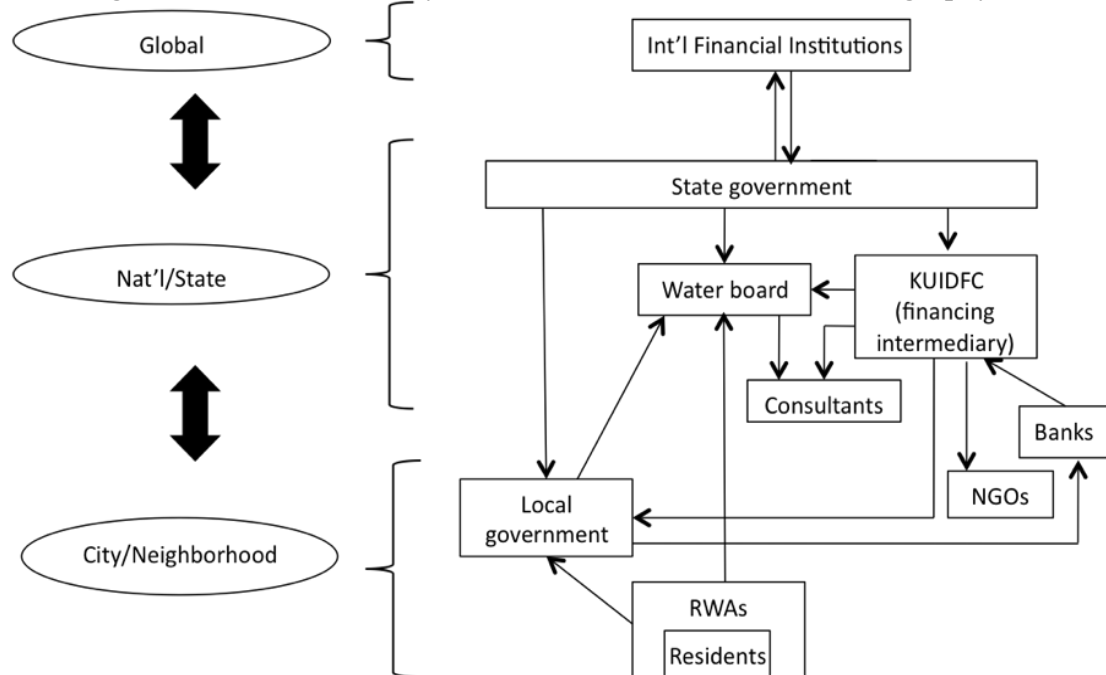
government offices. Indeed, following the money became a critical aspect of the logic of “the field” in this dissertation (see Figure 1)

As can be seen from the arrows in Figure 1 (a simplified schematic of flows of money through the system), tracking financial flows required me to undertake research at multiple sites, transcending multiple scales.⁹ Fieldwork was carried out over a total of 16 months comprising one nine month trip in Bangalore in 2007 followed by shorter trips of three and two months in 2008 and 2009 respectively, in addition to two months at the ADB in 2007. My core methods involved open-ended and semi-structured interviews with bureaucrats, engineers, and other experts in their places of work and on their rounds in the field; politicians in their party offices; and residents and association representatives in their neighborhoods and homes. I relied on two research assistants for translation help when necessary: Vinodha, a retired bank employee and now a freelance translator, and Lakshmi Prasanna, a Master’s in Sociology completing her MPhil in Social Work in Bangalore.

I started at the level of the state government. Through interviews at the Urban Development Department of the state government of Karnataka, Bangalore water board, and KUIDFC, I acquainted myself with the vocabulary of the projects I was interested in. I also made use of a library that KUIDFC maintains for project appraisal documents, consultant evaluations, and other documentation pertaining to the urban infrastructure loans it executes in the state of Karnataka. This proved to be an invaluable archival resource for gleaning the textual framing of governmental interventions, although this source had to be supplanted by personal interviews with KUIDFC and government officials in order to develop a deeper account of the production of policy and program expertise and the tenuous nature of hegemony.

⁹ I am aware of Ferguson and Gupta’s (2002: 983) critique that scholars typically imagine a topographic metaphor that positions global institutions and the state as “up there” and civil society as “on the ground” or a zone of intermediation between the grassroots and the state. Their point is not that this verticality is false, but “to draw attention to the social and imaginative processes through which state verticality is made effective and authoritative” (ibid). The arrangement of Figure 1 similarly does not take for granted this verticality between scales, but instead acknowledges that it is constructed both by my own imaginative processes as well as those encountered in the field.

Figure 1. “Follow the money”: Multi-sited and multi-scaled ethnography



I simultaneously began to investigate the translations and appropriations of these projects at the level of the local government, local water board offices, and neighborhoods in three peri-urban localities¹⁰: Bommanahalli, KR Puram, and Byatarayanapura¹¹ (see Figure 2). I first selected Bommanahalli at the southeastern margins of the city because this is an area that exemplifies uneven peri-urban growth dynamics with its high concentration of tech parks and apartment complexes and its proliferation of unauthorized residential subdivisions and their neighborhood associations. I later added KR Puram and Byatarayanapura as sites to corroborate findings in Bommanahalli and to take advantage of the active presence of neighborhood associations in these areas. Demographic and socio-economic details pertaining to all three sites, along with further details on my research strategies, can be found in Appendix A.

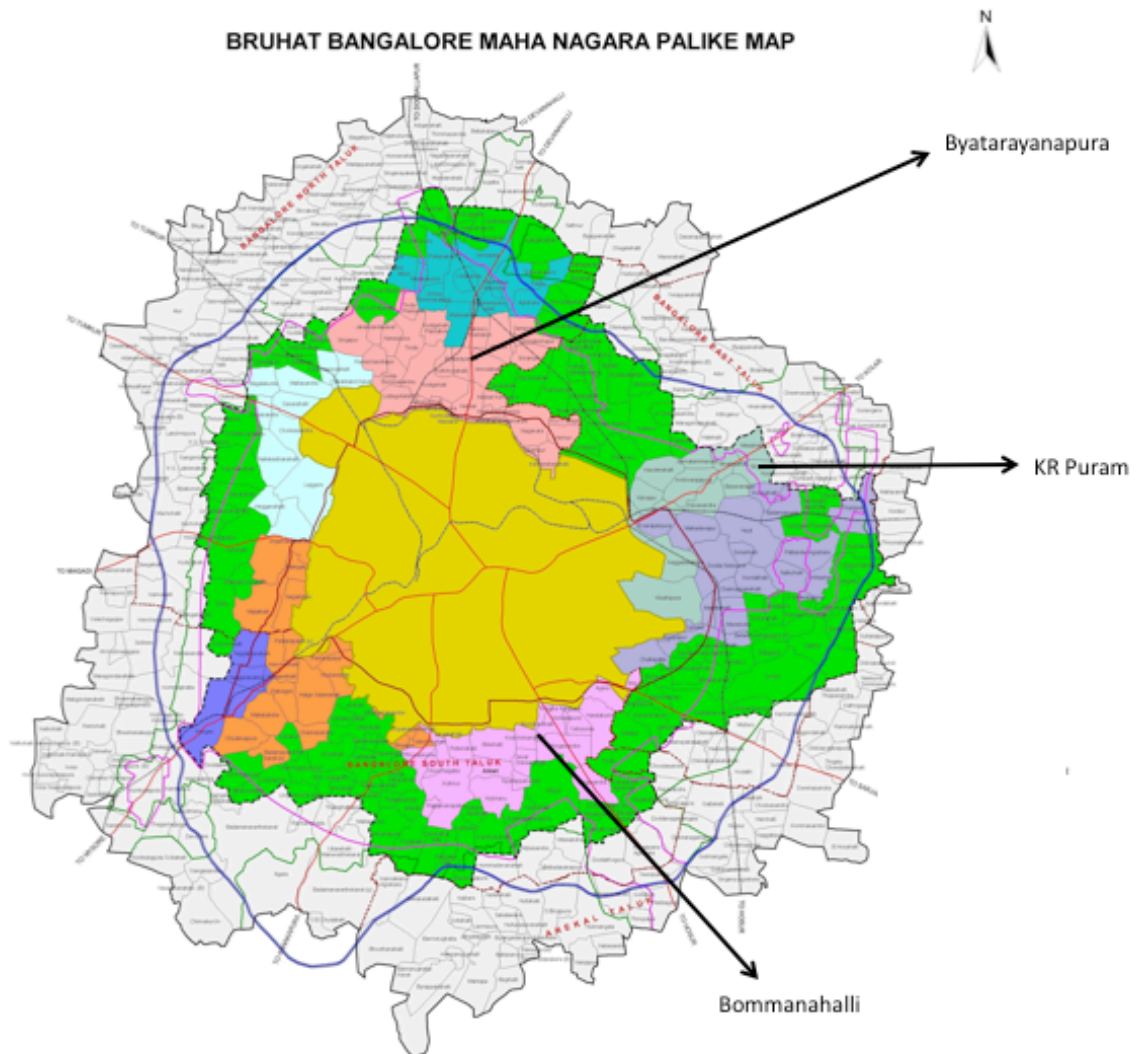
Through repeat visits over several months, I was able to develop an ethnographic presence and enough familiarity with local government employees and residents that they allowed me to examine a range of personal documents, including payment receipts for water, letters written to government officials in protest of various water and tenure regularization policies, and internal memos. On several occasions, I attended neighborhood meetings as a participant observer, engaging in casual conversation with the attendees about their civic concerns and their political strategies. Finally, I relied on visits to New Delhi and to Manila in order to gather insights not only into how discourses and strategies pertaining to water reform are transmitted through loans and “capacity building” initiatives, but also to trace how ideas

¹⁰ These municipalities were part of a total of eight municipalities and 110 villages that were consolidated into the Greater Bangalore city corporation in 2007. In the latest (2010) redrawing of the official map of Bangalore before the city elections, KR Puram is now part of Mahadevapura Zone.

¹¹ Pronounced “BY-tara-YAN-pura” by locals.

emanating *from* Bangalore, in turn, shape agendas in the rest of the country and in international agencies.

Figure 2. Map of Greater Bangalore showing field sites



Source: BBMP

“Global ethnographers”, insists Michael Burawoy (2000: 4), “cannot be outside the global processes they study”. They are implicated in the fields of power they surveil, always navigating their own liminal positionalities of “insider” and “outsider”, “self” and “other”, and “field” and “home”. Bangalore is a city I have returned to periodically my whole life and it is a city I call home. Home is, in fact, at the very peripheries that I study: at the crowded, southernmost edges of the city in an erstwhile village called Puttenahalli in Bommanahalli. Yet there are peripheries within peripheries. Early on in my fieldwork, I became acutely aware of my own complicity in the uneven structures I was critiquing and writing about. The well-serviced “planned” apartment complex that I lived in—with its back up electricity generator and reliable Cauvery water connection—is an anomaly amidst a sea of unauthorized subdivisions lying right

outside of it. The “inbetweenness” of these identities—of being a middle class resident of peri-urban Bangalore, yet one with a qualitatively different set of privileges than my neighbors; of being a PhD scholar from the US, yet an Indian who has family and roots in the city; and of being a researcher allied with the activist left, yet one who had also worked for and published under the auspices of the ADB—made it a challenge to position myself. However, these split and contradictory perspectives also provided openings and room to maneuver. In effect, they allowed me to come to terms with what Donna Haraway (1988: 585) calls “a commitment to mobile positioning”. A commitment to mobile positioning allows one not to “see” from the viewpoint of particular informants, but to recognize that *all* knowledge is situated and partial—including one’s own. The goal, then, is to interrogate the positionings of informants, to make connections with and between them, and to stitch together their stories with one’s own, however imperfect that process and outcome may be.

1.7. Dissertation Outline

I begin in **Chapter 2** by narrating a history of Bangalore’s periphery through the prism of water, space, and power. This is a starting point that I find indispensable to understanding how contemporary reforms articulate at the peri-urban interface. Why is water access so uneven here—oddly mirroring patterns in the older, core parts of the city known in Kannada as the *pettah*? What was/is the role of the state, both colonial and post-colonial, in producing and reproducing this unevenness as the city has expanded over time? Is the abetment and management of illegalities and “mafias” we are witnessing today a rupture or continuity with the past? Drawing on colonial records, newspaper microfilms, maps, and other archival material, in Chapter 2 I historicize both “planned” water infrastructure and city improvement schemes undertaken throughout the 20th century, as well as “unplanned” modes of service delivery and settlement patterns that evolved concomitantly. I invoke the trope of a frontier to underscore the city’s outskirts as constantly in the making, a moving target where formality and informality, legality and illegality, “planned-ness” and “unplanned-ness” are utterly mixed up. Historically, the frontier is where colonial governmentalities of hygiene and improvement of the native “other” were put to work; where the city’s industrial impulses were actualized; and where the post-colonial state catered to the demands for illicit home ownership of a public sector, and now peripheralized, middle class. We will see therefore that unauthorized “revenue layouts” have their origins in a period of state-led development dating to the 1960s. In the current moment, however, revenue layouts are being *re*-regulated in a manner that intersects with water reforms in unanticipated ways. This chapter sets the stage for examining these frictions later in the dissertation.

In **Chapter 3**, I examine how this unruly frontier—with its rampant growth of unauthorized extensions and deplorable services—was targeted for municipal reform under a program known as Nirmala Nagara from 2003 onwards. Following in the steps of the Bangalore Agenda Task Force, the mentalities of these reforms sought to “reengineer” the messiness of municipal operations through technical and managerial fixes. I illuminate one of the modalities through which this occurs: the case of e-grievance redressal. The e-grievance redressal system enframes complaints made by residents of Bangalore’s peripheries, relays them to engineers in charge, and summarizes these statistics visually—all with the aim of enhancing the accountability of local government. In this chapter, I problematize these assumptions. I show that

rather than bolstering the responsiveness of the local state to citizens, this is a governmental technology that is geared to disciplining the local state vis-à-vis higher echelons of the state apparatus. The capacity of the program to render municipal governments more intelligible and auditable, moreover, appeals strongly to the state government and international lenders seeking to scale-up reforms throughout the state. There is thus greater upward accountability induced by the system in question than downward—a phenomenon that can be understood in light of a broader tendency towards the centralization of state power under economic liberalization. I argue that if we are to grasp the actually-existing dynamics of accountability of the local state to its citizens, it is to the quotidian, affective, and performative arenas of everyday state formation that we must turn.

If internationally mobile narratives of efficiency, accountability, and transparency animate contemporary reform agendas, then so too do the imperatives of financial discipline. The workings of the two are in fact interdependent. In **Chapter 4**, I step back from the level of individual projects to interrogate the broader political-economic, epistemological, and institutional transformations underlying the deepening financialization of the water sector. I focus on one conjunctural moment—the state-level fiscal crisis of the 1990s—wherein the nature of financial flows from international lending institutions to the government of India, and in turn, from states to cities, was fundamentally altered. It is at this moment that the project of urban decentralization was reframed along narrowly economic lines, and the imperatives of “self-sufficiency” and “resource mobilization” took precedence over all else. What this has meant in concrete terms for the urban water sector is a turn to capital markets and the ascendance of disciplinary scrutiny from credit rating and other agencies—a trend that I show was derived from but nonetheless differed significantly from the US experience. Pivotal to this reformatting of water governance in Karnataka were the technocrats of KUIDFC—an agency that sits at the interstices of the state apparatus yet operates like a private company. Through in-depth interviews, I examine this rule of experts and their acts of rendering financial. I underscore how the disciplinary orientations and career trajectories of experts profoundly shape the way they see and want to fix urban governance and the water sector. I also complicate the agency of these experts, revealing that their machinations can often be at odds with the international financial institutions they act on behalf of and the foot-loose consultants they oversee. I argue that this more nuanced reading of development experts than is typical of the literature matters if critical scholars are to fruitfully engage the fault lines of neoliberal policy and practice.

These ethnographic insights provide the context for examining in **Chapter 5** the technopolitics of the Greater Bangalore Water and Sanitation Project, a project in which KUIDFC experts played a formative role. My central concern in this chapter is to assess the fragile and contingent processes through which neoliberal rule is accomplished. I trace the project’s key moments of translation from when it was abandoned for lack of funding in the late 1990s, to its subsequent reenactment through neoliberal logics in 2003 when USAID entered the fray, to its messy actualities and points of disjuncture as studied on the ground. Through interviews and readings of the sub-text of project documents and meeting memos, I examine how experts recruited a diverse set of domestic and international allies and positioned themselves as nodal points in the financial and institutional architecture of the project. I pay close attention to two technologies of payment that constitute the project’s financial model—municipal bonds and beneficiary capital contributions—and the calculative rationalities inscribed within them. I argue

that these political technologies are directed not only at the project beneficiaries in an attempt to reengineer the relationship between citizens and the state, but also at the local state. Finally, I look closely at the material significance of the project. Who gained access to water, who was left out of the supply schedule, and why?

In **Chapter 6**, I turn to the articulations between reforms—specifically the new policy mandating beneficiary contributions for building a water network in peri-urban areas—and the insurgent politics of the frontier. I show how the new payment policy has become the basis for resistance, renegotiations, and compromises between the peripheralized middle class and the state. I argue that such cost recovery policies ultimately gain traction not because subjects are successfully inculcated with a sense of financial responsibility—what Foucault’s followers have referred to as neoliberal moral “responsibilization”. Rather, borrowing from Gramscian understandings of agency, I find that the act of paying for water for residents that live under dubiously legal conditions of tenure security carries a much deeper set of political, social, and legal meanings and implications. Payment for water as mandated by neoliberal reforms is in effect a *bargaining chip* for peripheral residents: a means through which to claim greater recognition by state authorities and tenure security, particularly in the face of new, punitive regularization measures targeting revenue layouts in 2007. I further argue that we can understand this payment-as-claim-making strategy only if we look carefully at the history and politics of peri-urban associations—how bargains with the local state have historically been made, for instance, through electoral lobbying and leveraging tax and other payments. These insurgent citizenship politics of the peripheralized, informalized middle class are not easily slotted into existing analyses of India’s “new” middle class. I show that the stakes attached to water reforms in Greater Bangalore today thus cannot be understood outside of a history of socio-spatial relations at the frontier.

Chapter 7 concludes by summarizing the key arguments of the dissertation. It further suggests some ways to rethink a more balanced and viable urban water praxis—one that is alert to the actually existing formations of accountability and participation, to the necessity of interdisciplinary and power-sensitive policy frames that move beyond financialized criteria, and to the frictions between market-oriented water reforms and land reforms at the peri-urban frontier.

CHAPTER 2

On the Frontiers of Global Capitalism: Water, Space, and Power in the Making of the Peri-Urban

Frontiers are deregulated because they arise in the interstitial spaces made by collaborations among legitimate and illegitimate partners: armies and bandits; gangsters and corporations; builders and despoilers. They confuse the boundaries of law and theft, governance and violence, use and destruction. These confusions change the rules and thus enable extravagant new economies of profit—as well as loss.

-Anna Lowenhaupt Tsing (2005: 27-28)

2.1. Introduction: Towards a History of the Peri-urban Present

“The water mafia is active here,” said Santosh gravely as he leaned forward in his chair and lowered his voice as if to make sure that no one else would hear. Even though we were alone in his office on the northern outskirts of Bangalore, any utterance of the word “mafia” demanded caution. I blinked at the poster on the wall behind his desk advertising private water tanker service and then back at him. “Was *he* part of the water mafia?” I wondered to myself. Santosh was not only the president of his middle class neighborhood association in Byatarayanapura—one of three of my field sites located about 20 km north of the core city—but he was also *in* the highly lucrative groundwater business. He continued: “Not only a water mafia, but also a land mafia. I should know because my grandfather sold his land to the mafia. A politician said: ‘if you don’t sell your land, the government will acquire it’. So he reserved some for himself and the rest he sold to the land mafia”. Twice in one conversation now, Santosh had used the word “mafia” to refer to extra-legal markets in two different resources at Bangalore’s urban periphery, but what exactly did he mean, how and why had these “mafias” developed, and (how) was he implicated?

This chapter is about Bangalore’s peri-urban frontier and how it came to be. It seeks to explain how clandestine markets in land and water proliferated at the periphery throughout the 20th century—and particularly from the 1990s onwards—*alongside* modernist projects of urban planning, improvement, and infrastructure development. Similar to the frontier of Neil Smith’s (1996: 190) “revanchist city”, Bangalore’s peri-urban frontier embodies “the twin thrills of romance and rapacity: it is the place where the future will be made”. It is also a place where legality and illegality are utterly mixed up, much like Anna Tsing’s (2005) frontiers of spectacular extraction in the rainforests of the Indonesian Borneo. More than signifying a single place or even a process, a frontier for Tsing is a heuristic device; it is “an imaginative project”

(ibid: 32) embodying a series of productive confusions and twists.¹² Frontiers are generated from the shifting terrain between legality and illegality, governance and violence, planned and unplanned settlements, markets and mafias. Indeed, from Santosh's story and several others I had heard during my months of fieldwork in Bangalore, the peri-urban frontier sets the stage for awkward encounters among "legitimate and illegitimate partners" (ibid: 27). How did history give rise to this set of socio-spatial relations and associated patterns of resource use in this Indian city?

I find such a historical analysis to be a necessary starting point to understanding how neoliberal shifts in urban water governance articulate at the peri-urban interface¹³, a topic that I address later in the dissertation. Far too often, as Arabindoo (2009) and Mbiba and Huchzermeye (2002) have noted, donor-driven policy studies elide the historical and geographical specificity of peri-urban regions, offering instead only descriptive and generalized statements of their conditions.¹⁴ An important lacuna, for instance, is the failure to connect peri-urban water and sanitation challenges with historical processes of land development under capitalism in which the state continues to play a key role in producing both "formal" and "informal" settlements. Without acknowledging the power-laden and historically contingent connections between land and water, and, further, between agrarian and metropolitan change, the technical and financial options put forth by development specialists to improve environmental conditions at the urban periphery risk reinforcing existing inequities.

Taking a political ecology approach, then, this chapter develops a historical perspective of the relationship between resources and society at Bangalore's frontier.¹⁵ By that I mean the concrete ways throughout the city's 20th century history in which spatial and resource frontiers were expanded, the specific modes of production enabling this expansion, and the dialectical (or mutually constitutive) relations between resource frontiers and modes of production. My analysis privileges an investigation into the political-economic history, relations of power, and spatial practice that shaped, and were shaped by, Bangalore's urban natures during colonial and post-colonial periods.

¹² It should be noted that Tsing (2005) herself draws on previous, seminal understandings of the frontier, including Frederick Jackson Turner's path-breaking work on the American frontier as "the meeting point between savagery and civilization" (Turner 1994: 32, quoted in Tsing 2005: 32). However, Tsing, in addition to other scholars writing against an evolutionary understanding of the frontier as a mere progression from "wild" to "civilized", stresses the interdependencies between wild and civilized, rural and urban, and natural and human-made, as I do too here.

¹³ I use the terms "peri-urban interface", "peri-urban frontier", "urban periphery" and "urban fringe" interchangeably to refer to the roughly 500 sq. km of urban villages and municipalities that surround the Bangalore City Corporation that were officially subsumed by it in 2007.

¹⁴ For examples of such donor-driven studies, see the edited volume by McGregor et al. (2006) or the analysis of a series of case studies by Allen et al. (2006a) funded by the Department for International Development (DFID). While rich with empirical material, it is difficult to get a sense of the historical, political, and geographical specificity of these cases, nor the underlying driving forces and agents of peri-urban change.

¹⁵ For elaborations on historical materialism, particularly with respect to society-nature relationships, see Smith (1984 [2008]) and Harvey (1996). For specific applications in urban political ecology, see Keil (2003) and the collected volume by Heynen et al (2006), among other numerous examples.

Such an investigation follows in a lineage of works by, for example, Eric Swyngedouw (2004) on the role of cocoa- and oil-based political economies in the production of Guayaquil's (Ecuador's largest city) uneven waterscapes, and Matthew Gandy (2002) on the transformation of New York City's water supply as a critical input to urbanization. Running through these works is the role of a broadly conceived capitalist political economy in the production of nature and uneven geographic development, as theorized by Smith (1984 [2008]). David Harvey's (2003) notion of the "spatial fix" also comprises an important theoretical lineage for urban political ecologists writing on the history of space and infrastructure. For Harvey, the "spatial fix" suggests that to resolve crises inherent to capitalism (e.g. the over-accumulation of capital), societies periodically invest capital surpluses into the built environment and urban infrastructure, thus temporarily "fixing" the crisis, but only to reencounter it at a later date.

While these themes are important influences on my work, my analysis of Bangalore's case generates two insights that do not often appear in the (predominantly Marxian) urban political ecology literature. First, I argue that driving early 20th century expansion of Bangalore's spatial and water frontiers—both of which are undoubtedly connected as I will show—were not only the imperatives of colonial textile-based capitalism, but also projects administered by the British Raj to inculcate a greater sense of hygiene and morality in the "natives". As in other cities, projects of colonial governmentality were framed by the language of city "improvement" (e.g. slum removal and sanitation schemes), subsequently adopted and reworked by post-colonial regimes. Following Foucault (2003 [1979]) who maintained that the object of liberal government is to conduct the conduct of populations so as to *foster* life—what he termed the domain of "biopolitics"—scholars argue that public health measures from the 18th century onwards represented a direct extension of rule over the human body to rule over the city (e.g. Joyce 2003; Osborne 1996).

As post-colonial theorist Gyan Prakash (1999: 125) has argued, however, biopolitical projects under colonial regimes were predicated on racialized notions of difference between the European colonizer and native "other"; they thus "had to be radically discontinuous with the Western norm". Seldom backed by political will nor adequate finances, public health measures undertaken in the name of urban "improvement"—what I am calling here the biopolitics of improvement—from Delhi to Bombay benefited only a minority of the colonial and indigenous elite (Hazareesingh 2001; Legg 2007). Similarly, in Bangalore, improvement schemes to expand piped municipal water supply and underground drainage were extended selectively to "planned" suburban layouts following the turn-of-the-20th century plague outbreak. As I will show through a careful reading of archival material, the unwillingness of the colonial state to subsidize the cost of these layouts for lower income natives meant that socio-economic, material, linguistic, and racial differences were reproduced as the city expanded.

Second, I insist on a historicization not only of the planned, "formal" projects of infrastructure development—the multiple city improvement schemes that the city undertook throughout the 20th century—but also of the "informal" or extra-legal forms of service delivery and settlement that evolved *in tandem*, especially at the urban periphery. After all, "informality is not a pre-capitalist relic or an icon of 'backward' economies... [but] a capitalist mode of production, *par excellence*" (Roy 2008: xx, emphasis added). Without interrogating the explosion of unauthorized residential settlements known as "revenue layouts" and unregulated

groundwater mining in the 20th century—beyond narrowly conceived Malthusian explanations—we miss a significant part of the history of capitalist urbanization.

I suggest that while it is true that Bangalore's unauthorized revenue layouts and informal modes of water access multiplied in the aftermath of liberalization, contrary to what Graham and Marvin (2001) might have us believe, their origins are rooted in an era of state-led development. If the colonial state perpetuated material inequities between colonial and native spaces in the first half of the 20th century, the post-colonial developmental state in the latter half actively encouraged the demand for unauthorized settlement—particularly from the 1970s onwards. It did this even as it embarked on modernization schemes. Multi-layered and highly internally inconsistent, the post-colonial “state” was at once attempting to deter illegalities while also partaking in them, thus enabling a public sector middle class to secure home ownership. As Donald Moore (1993) remarks drawing on a Gramscian framework, it is not only the macrostructural, political-economic conditions, but also the everyday negotiations between landowner, politician, bureaucrat, and middle class aspirant that shape access to productive resources. A neglect of local politics and agency “may produce a misleadingly monolithic model of the ‘state’, conceiving it as an actor with a unified intentionality” (ibid: 381). Drawing from historical and field research, in this chapter I unpack Bangalore's politico-legal landscape and its involvement in water and land politics at the peri-urban frontier.

Finally I use these insights to reflect upon what is *new* about the formation of the peri-urban frontier in the contemporary moment. I find that what is new is not that an internally differentiated “state” abets in its development, nor that the peripheralized middle class is implicated, but rather what is new concerns the form, intensity, and logic of unauthorized development. Liberalization in the 1990s unleashed massive speculation in agricultural land, now available for settlement at Bangalore's periphery not only by the peripheralized middle class—now employed in the private rather than public sector—but also to the interests of multinational capital. I show that technology parks, resorts, and apartment complexes are all consumers of informal land and water extraction at the periphery, in addition to the ever-proliferating revenue layout. Today, however, revenue layout dwellers are vulnerable to *new* governmental projects of differentiation—this time predicated not so much on the biopolitics of improvement as on what I refer to as the politics of regularization. The politics of regularization, I argue, is a highly contentious process of selectively deeming peri-urban dwellers “illegal” or “legal” in order for the state to extract surpluses from them. In effect, I show how particular arms of the state continue to reproduce and manage axes of difference. I will use this analysis as a basis from which to explore the workings and re-workings of neoliberal water reforms in subsequent chapters.

I proceed in Section 2.2 with an investigation of turn-of-the-century projects of city improvement and modernization. I stress the importance of this period in understanding how patterns of socio-spatial difference were reproduced as the city expanded, and continue to play out today. In Section 2.3, I trace Bangalore's rise as a center for public sector-led industries and garment manufacturing. In particular, I focus on how unregulated and informal modes of accessing water and land evolved in parallel with, and *sometimes as a result of*, the “formal” activities of the parastatals set up by the developmental state. I also trace the rise of the public sector middle class—i.e. what I am calling Bangalore's now peripheralized middle class—in this

process. In Section 2.4, I discuss the effects of liberalization on intensifying illegalities at the periphery, and further assess the ruptures and continuities in the production of the peri-urban frontier in the contemporary moment.

2.2. Industrial Colonialism and the Biopolitics of “Improvement”, ~1900s-50s

To talk of land and displacement...and not to consider colonialism is to commit an unforgiveable, but not unprecedented oversight.

-Blomley (2004: 106)

Producing socio-spatial difference

In 1897, Lewis Rice, a British orientalist and then fellow at the University of Madras, produced a revised and expanded two-volume “gazetteer” for the imperial government on the princely state of Mysore of which Bangalore was a part until the formation of Karnataka in 1956. Containing a deluge of colonial statistics “both on people and resources, at every imaginable level and for every conceivable purpose” (Appadurai 1993: 317), Lewis’ tomes embody what scholars have remarked to be a veritable obsession by the British empire with classifying and rendering knowable its Indian population in order to sustain an illusion of bureaucratic control (e.g. Appadurai 1993; Cohn 1987; Ludden 1993). What is of interest here is Rice’s account of Bangalore’s distinct urban spaces established to maintain cultural, economic, and political separation between colonized and colonizer—spaces that continue to be reproduced in the city today.

To the east, in and around the village of Halsur (Ulsoor), Rice writes about the Civil and Military Station (previously, and now, referred to as the cantonment), established for Europeans and Eurasians in 1809 after the British fought and won their last decisive battle in southern India. Falling directly under the rule of the Imperial Crown, the cantonment was envisaged as “an isolated piece of British territory surrounded by foreign territory” (colonial report cited in Pani et al. 1985: 15). Its broad, tree-lined avenues for wheeled traffic, open parade grounds, and spacious bungalows were recreated along the lines of European urban aesthetics and planning norms. By contrast, to the west, outside the old walled city, he writes about a collection of villages referred to as the *pettah* [“locality” in Kannada]—believed to have first been settled by the local warrior chieftain Kempe Gowda and his descendants in 1537.

Administered by a city municipality that was permitted to hold elections only in 1892, the *pettah* was a “lively specimen of a Hindu town” (Rice 1897b: 45)—and all that the cantonment was not. With its “peculiar odors of eastern bazaars” and “universal babel [giving] evidence of the out-door life of the people” (ibid), the *pettah* presented a sharp contrast to the sanitized, orderly, and privatized spaces of the cantonment, with the exception of the bazaar *within* the cantonment known as Blackpally (today, Bangalore’s Shivajinagar), which was also a bustling “native town” (ibid).

The propriety of the *pettah* for Rice was an essential outcome of its “nativeness”. As he describes it: “Owing to the circumstances of its origin, the rapid growth of the town, and the various hands through which it has passed, the streets in the old part are often narrow and most irregular in appearance” (Rice 1897b: 44). As a result of this disorderliness, streets in the *pettah*

as a rule are “often very roughly paved and nearly always abounding in filth” (Rice 1897a: 263). For Rice, these contrasting urban spaces—one peculiarly “eastern” and the other with “somewhat the appearance of an English village” (Rice 1897b: 51)—embodied the innate qualities of the particular races that inhabited them.

The blatant silence in Rice’s account, however, is the stark discrepancy between the two areas in terms of municipal revenues and expenditures on basic urban services. The municipal budget statements in his second volume, for instance, reveal that on average, half as much per capita was spent on sanitation and public works in the *pettah* as compared to in the cantonment. That is, in 1894-95, Rs. 0.40 per capita was spent on “conservancy” (a house to house system of sewage collection) in the cantonment as compared to only Rs. 0.20 per capita in the *pettah*. Similarly, while Rs 0.80 per capita was spent on public works in the cantonment, only Rs. 0.40 per capita was spent for the same purpose in the *pettah* (see tables on p. 50 and 58 in Rice 1897b). Benefitting from miscellaneous sources of tax revenue (particularly on tobacco, slaughter houses, and property), the cantonment’s revenues were nearly double that of the *pettah* in any given year, even though their populations were comparable at 100,081 and 80,285 people respectively (ibid). The maintenance of socio-spatial difference was thus actively undertaken through colonial economics, even as academics such as Rice and his successors essentialized such difference as inexorably racial and religious.

Because of the perceived insalubrities of the *pettah*, interactions between natives and Europeans were curtailed, and physical and cultural differences between the two areas ran deep (Heitzman 2004; Nair 2005; Srinivas 2001). Even economic exchange between the *pettah* and cantonment was restricted on the grounds that “the activities of certain trades people [would] have proved a nuisance to the healthiness, cleanliness, safety and appearance” of the latter (cited in Pani et al. 1985: 15). As a result, drawing from an 1872 census report, Pani et al. (1985) state that 34.87% of the population in the *pettah* was employed in manufacturing, construction activities, and as artisans, as compared to only 11.05% in the cantonment. Even as the handloom industry for which Mysore was renown waned in the first half of the 19th century¹⁶, the *pettah* continued to be the node for commercial and trading activities in Bangalore, particularly for grain and cotton. In the cantonment, on the other hand, economic activities were oriented towards services rather than manufacturing, including government and administrative services, law, banking, and the military. The British also deliberately maintained a linguistic divide by

¹⁶ Pani et al. (1985) find that the major factors contributing to the decline of handloom textile production in the first half of 19th century include the closure of high-end markets with the defeat of the Mysore court, the importation of foreign silk, and export duties on domestic silk imposed through colonial trade policies. No longer seen as a profitable venture, by 1849, the number of handlooms in Bangalore had fallen by approximately half from nearly 5,000 at the beginning of the century.

ensuring that most of the inhabitants of the cantonment were of non-Mysorean origin and were thus conversant in either English or Tamil, but not Kannada (Pani et al. 1985).¹⁷

The discursive and material production of socio-spatial difference in colonial Bangalore is not unlike that of other cities. As several scholars have shown, racial, political, and economic forms of domination under colonial rule found expression through the production of urban space and architectural form (e.g. Abu-Lughod 1965; AlSayyad 1992; Jacobs 1996; King 1990). The framing of the native as quintessentially “other” in the colonial encounter not only deepened social and spatial segregation and difference, but also provided justification for infrastructural and town planning modernization schemes in the latter half of the 19th century—particularly in the arenas of water and public hygiene (Kooy and Bakker 2008b; McFarlane 2008). Writing on Bombay, McFarlane (2008: 421) shows how colonial planners were apt to use “the discursive power of colonial comparison”—the deliberate holding of local conditions to British standards—in order to assert superiority over the colonized. As I will show below, Rice’s initial accounts contrasting the native *pettah* and British cantonment served to reify the cultural superiority of European dwelling habits and, later reproduced by colonial sanitary engineers, provided powerful justification for public health measures targeting the displacement of native populations from the *pettah* and Blackpally to the periphery.

Textile-led industrialization and the first waterworks project

Unlike Bombay, which served as a commercial entrepôt for the British East India Company and colonial cotton trade from the 18th century onwards, Bangalore was a relative latecomer to industrialization. As Pani et al.’s (1985) economic history of the city shows, throughout much of the 19th century, Bangalore’s industrial growth remained quite unremarkable. The mainstay of the city’s economy, the handloom industry, experienced steady decline since the arrival of the British, and investment in its revival had either failed or was not forthcoming. This changed in 1877, however, when, against several political and economic odds, a British capitalist, later appointed as city’s municipal engineer, by the name of Standish Lee set up the first steam-powered woollens factory in the city. Because of its policy of direct rule in Mysore throughout much of the 19th century, the British government had a monopoly on labor power for the factor, which it drew free of cost from the Bangalore jail. But following rendition in 1881 to the Mysore king¹⁸, Lee was able to obtain tax concessions and subsidies for his factory to get it off the ground. Ten years later, when it was clear that a greater infusion of capital was needed, the factory was sold to the large Madras-based textile company Binny & Co. and subsequently scaled up. In the next few decades, Binny Mills, as the factory came to be

¹⁷ Even after the two parts of the city were united as a single municipality after Independence, by 1971, only 37% of Bangalore’s population spoke Kannada, the official state language; 25% spoke Tamil; 18% spoke Telegu; and 17% spoke Urdu as their first language (Heitzman 2008). Differences in religion, too, were and continue to be visible. For instance, while the popular *Karaga* festival celebrating narratives of the Mahabharata and goddess worship mainly occurs in the *pettah* and peripheral urban villages today, Roman Catholic festivals became the main public celebrations in the cantonment areas (Nair 2005; Srinivas 2001).

¹⁸ Accusing the then Mysore king of financial mismanagement, Mark Cubbon, the British commissioner, wrested power from him in 1831 and shifted the administrative capital to Bangalore. In 1881, the British handed power back to the Wodeyar monarchs who began a system of representative government that continued until independence.

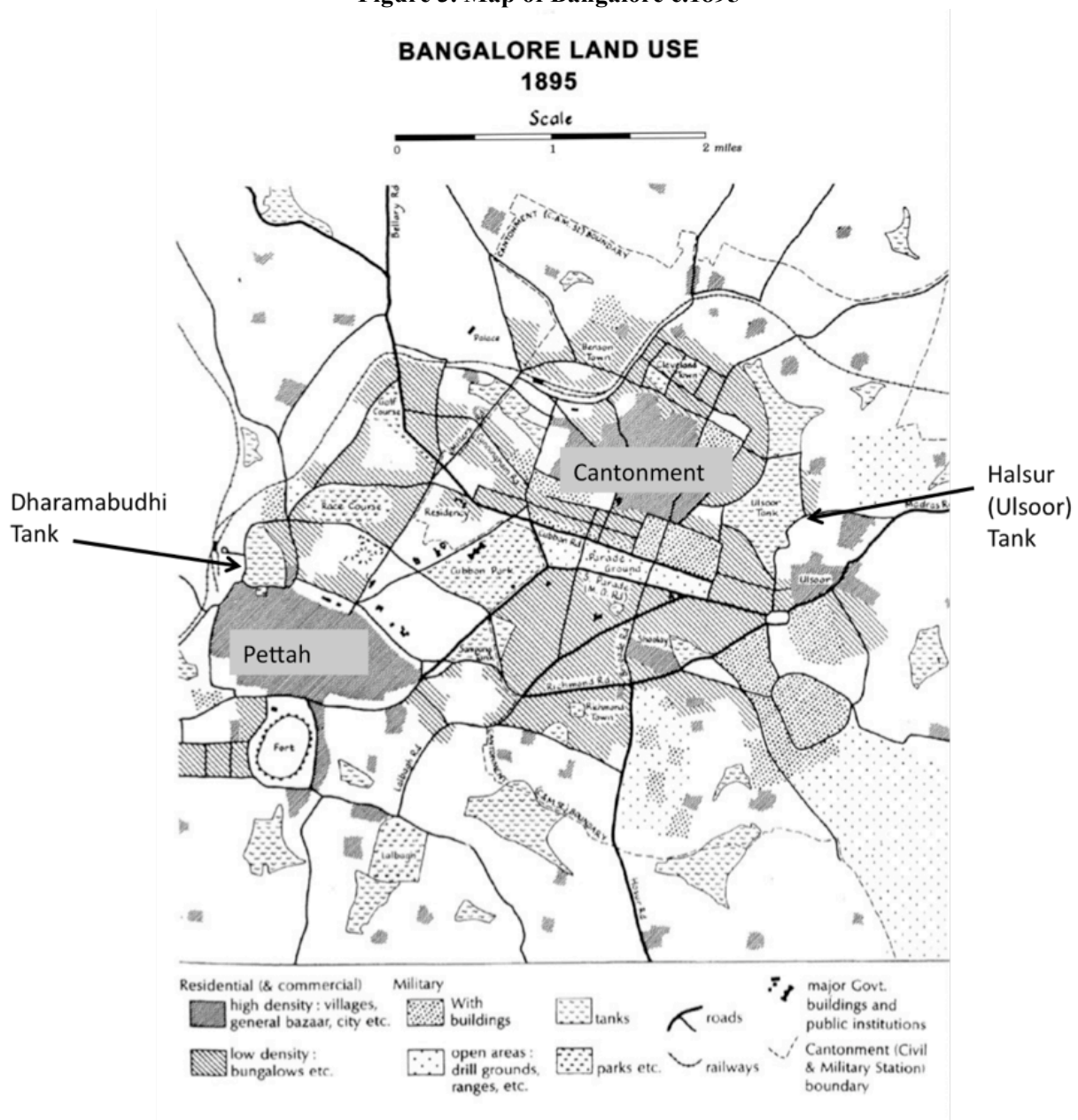
called, was followed by several other large textile mills owned by Indian entrepreneurs, including the Mysore Mills, Minerva Mills, and Sri Krishna Mills—all of which created new demands for infrastructure (particularly water, given its importance in textile production), land, and labor. As Harvey (1978) discusses, waves of capital accumulation associated with industrialization necessitate investments in the built environment in order to maximize profit and avert crisis. But as Sapana Doshi (Forthcoming) rightly points out in her study of Bombay's colonial water system, what Harvey does not account for is how new infrastructural investments in colonial contexts are guided by and reproduced constructions of difference.

As the city industrialized and drew an increasing number of textile workers to the *pettah* and Blackpally—areas that had thus far been poorly invested in by the colonial administration—water supplies and public hygiene came under mounting stress. Secure water supplies given the city's distance from any major surface water source was one of its most dire problems. For nearly a century after the arrival of the British, the *pettah* and cantonment had continued to depend on a system of interconnected natural and man-made tanks, or *keres* in Kannada. Dating to the city's 16th century origins, tanks provided a system of local water harvesting that had evolved together with the horticultural and religious practices of the region. In describing water supply in the *pettah*, Rice (1897b: 45) wrote:

The water supply of the native town was hitherto derived principally from the Dharmabudhi tank on the northwest. From this reservoir water was laid on to the streets and drawn out by the people as required from the square troughs or basins constructed at convenient points.

The cantonment areas, on the other hand, were “supplied from the large Halsur tank and wells adjacent to it, from which the water [was] pumped up by an engine to the top of a rock and thence distributed in pipes” (ibid: 52). From Rice's account, it is clear that while both areas depended on tanks (see location of major tanks in Figure 3), by 1897, piped water was still not available in the *pettah*. Both areas, however, faced imminent shortages, especially with growing demand from new residents in the *pettah*, drawn from surrounding villages who were now employed as mill labor.

Figure 3. Map of Bangalore c.1895



Source: Census of India (2001)

When it was clear that even the new reservoir built by the engineer Sankey in 1882 “would not suffice to provide for the water supply of the Civil and Military Station, much less for that of the whole of Bangalore” (ibid: 53), colonial administrators launched a prize competition for the best essay addressing the subject of Bangalore’s water supply. At the time, a further expansion of the local reservoir system was proposed. The competition resulted in nothing concrete, however, and short supplies and poor quality water continued to present an enduring challenge to colonial administrators. Finally, in 1896, the first major capital-intensive waterworks scheme for Bangalore was commissioned on the Hesaraghatta Reservoir of the

Arkavathy River, located 25 km to the northwest of the city. Benefitting from Industrial Revolution advances in steam-powered technology necessary to pump water from distant reservoirs, Hesaraghatta was the first urban water supply scheme to be located outside of the city, and the most expensive scheme the city had undertaken to date, costing at the time Rs. 20 *lakhs*¹⁹ (Hasan 1970). A century later, the Hesaraghatta was to run completely dry, as the city tapped most of the reservoir water and moved on to bigger and more ambitious schemes.

Behind this particular scheme, and driving a new paradigm of water engineering and urban planning throughout the country more generally, was the *dewan* (minister) Seshadri Iyer, one in a series of engineer-statesmen who were to transform the city's industrial and infrastructural landscapes over the next 50 years. Trained in the best scientific institutions, Mysore's *dewans* were pivotal in imbuing colonialist and subsequently nationalist thought with notions of modernity and progress. Seshadri Iyer, in particular, played an instrumental role in the country's first hydroelectricity project on the Cauvery River and Bangalore's first waterworks scheme. And as I show below, his role in the spatial reconstitution of the city following the outbreak of the plague and in the institution of a new planning logic were critical in mediating the actual conditions of water access we see today.

"A gospel of fresh air and sanitation"

Between 1896 and 1914, the plague killed eight million people in India as part of a South Asia-wide pandemic. Chandavarkar (1998) finds that although it did not claim the most lives—diseases such as influenza, cholera, and tuberculosis had far greater mortality—no other disease generated as much fear and pandemonium in India, and no other catalyzed as much state intervention in the built environment.

When the plague swept through Bangalore in 1898, it is estimated to have killed 10,000 people, thereby reducing the combined population of the cantonment and *pettah* by 10% (Heitzman 2004). The disease prompted the drastic eviction and demolition of houses and congested streets in the *pettah* and Blackpally, and the widespread deployment of "improvement" discourse, practice, and institutionalization—what Stephen Legg (2007) in his study of Delhi's colonial governmentalities calls "improvement *techne*". Across the colonial world in the wake of the plague, improvement *techne* became synonymous with widespread urban renewal.

Akin to the parastatals of the post-colonial era that I discuss below, dedicated agencies called "City Improvement Trusts" were established at the turn of the century to deal with insanitary conditions, based on the premise that "strong executive action unencumbered by accountability to representatives of local self-governing institutions was the only way to achieve decisive results in civic affairs" (Kidambi 2001: 58). Bombay, for instance, created a special agency known as the Bombay City Improvement Trust to carry out anti-plague measures in 1896. Modeled on the Glasgow Improvement Trust of 1866 (see Home 1997), the Bombay City Improvement Trust's main activities were focused on slum clearance and re-housing the poor in high-density *chawls* (tenements). But, as Hazareesingh (2001) notes, the former activity tended

¹⁹ 1 *lakh* = 100,000

to dominate over the latter in a climate that prioritized profit over social housing, thus not only reinstating poor living conditions, but in many cases, worsening them.

Several studies have elucidated how colonial perceptions of and responses to the plague were class-specific and motivated by deeply ingrained racial and cultural bias. Swanson's (1977) classic work on South Africa, for instance, shows how the plague epidemic served as a societal metaphor to justify attitudes towards "disease-ridden" Black South Africans and Indians. The ensuing "sanitation syndrome", as Swanson dubs it, both roused and rationalized efforts to segregate poorer Indians and Africans in South African municipalities. In Bombay, Kidambi (2004) argues that in the context of uncertainty over the etiology of the disease²⁰, the views of health officials and engineers were informed by the belief that the disease had an identifiable locus in the city's insanitary slums.

The notion of "miasma" popularized in Britain in the mid-nineteenth century provided a central trope in beliefs about the propagation of disease in the tropics (McFarlane 2008). Miasma theory insisted on the spread of disease through bad odors, including via cesspools of sewage, rotting carcasses, and poor ventilation—all purported to be *inherent* characteristics of the dwelling habits and culture of poorer natives. Miasma theory had a political advantage as well: essentializing native dwelling habits helped to downplay the economic neglect of native areas under colonial policy. Even after it was conceded that fleas on rats transmit the plague, colonial planners insisted that the "germinating cause" (Stephens 1923: 7) lay in overcrowding and poor ventilation typical of poorer neighborhoods. As a seedbed for politicization and popular revolt, congestion and overcrowding also presented a threat to colonial security (Chakrabarty 2002). The focus of the anti-plague offensive in several colonial cities thus lay not only in elaborate quarantine and public health measures largely targeting the poor, but also in demolishing congested slums thought to breed plague *and* opposition, and in building new housing schemes according to revised byelaws.

The emphasis on managing population welfare through public health measures under colonial rule can aptly be explained by Foucault's (1985 [1976]) notion of "biopower"—first touched upon in *The History of Sexuality* and later elaborated upon in his lectures on governmentality (Gordon 1991). Biopower, argued Foucault, refers to relations of power emerging in the modern era that aimed to *foster life* via the regulation of the individual body and population welfare (as opposed to previous regimes in which the sovereign maintained the right to *take life*). The regulation of population, which he called "biopolitics", was conceived of by enumerating and diagnosing populations in the abstract, such as through birth rates and death rates. It also entailed reform in a wide range of sectors from sanitation to housing to police services (Legg 2005). But at the core of *colonial* biopolitics, several scholars contend, is not only the production and maintenance of difference, but also the curtailing of "the full range of liberal governmental tactics" (Legg 2007: 150), largely because of tensions between biopolitical aspirations and the economic prerogatives of colonial regimes.

²⁰ See Chadavarkar for a description of the competing medical explanations about the origins of the plague in circulation at the time, before it was finally accepted in 1907—in the face of considerable opposition—that the plague was spread by fleas on rats and not by the "barefoot native".

Bangalore's turn-of-the-century plague experiences have strong echoes of those in other colonial cities, and reflect precisely these tensions. The area that proved to be the main target of improvement schemes in the disease's aftermath was Blackpally, the native bazaar within the cantonment with a large Muslim working class population. JH Stephens, the engineer in charge of Blackpally evictions, wrote in great detail about his experiences in Bangalore—among other venues, in the magazine *Popular Mechanics*. Describing the events in Blackpally, Stephens (1922: 235) uses the “discursive power of comparison” to insist: “for while so many Mohammedens died, the plague hardly touched the English. It took some time for these people to understand that the principal cause of all the trouble was insanitary habits and manner of living”. Moreover, in essentializing native dwelling habits, he states:

Except for the small minority of the educated classes, India was still very much as it was centuries ago. Rites and sacrifices were still considered the purifiers of a town, and impure and filthy surroundings were contemplated with passive calmness *as almost a necessary part of existence* (Stephens 1922, emphasis added).

Through this language, Stephens produces colonized subjects as uneducated, superstitious, and dirty—badly wanting of succor from their “good friend the British government” (ibid). Believing that the plague as “not only a teacher, but a reformer” that could “[shake] the faith of the people in the protecting and purifying efficacy of rites and [prepare] them for a gospel of fresh air and sanitation” (ibid), Stephens fused the rationalities of public health engineering with Christian belief to justify draconic improvement measures. This, according to Comaroff and Comaroff (1989) was a project that aimed at the very “colonization of consciousness” (cited in Moore 1999).

Fraser Town, named after a resident of the cantonment, was the destination to which evictees were to be removed. Located on 50 acres of agricultural land about two miles north of Blackpally outside the main city, the settlement was built in line with modern principles of architecture and planning, which included “rational and preventive measures” (Stephens 1923: 8) of eradicating the plague. Wide roads, elevated platforms for bungalows to ensure proper drainage, hard roofs and floors to make them rat-proof, and raised basements were all part of the new norms for a “healthy and agreeable” (ibid) built environment (Figure 4). Moreover, plots were sold to occupants on the condition that two-thirds of the area was to be reserved for open space—something that required “great watchfulness to see that the rule was not broken” (ibid).

Figure 4. Early peri-urban extensions: Fraser Town



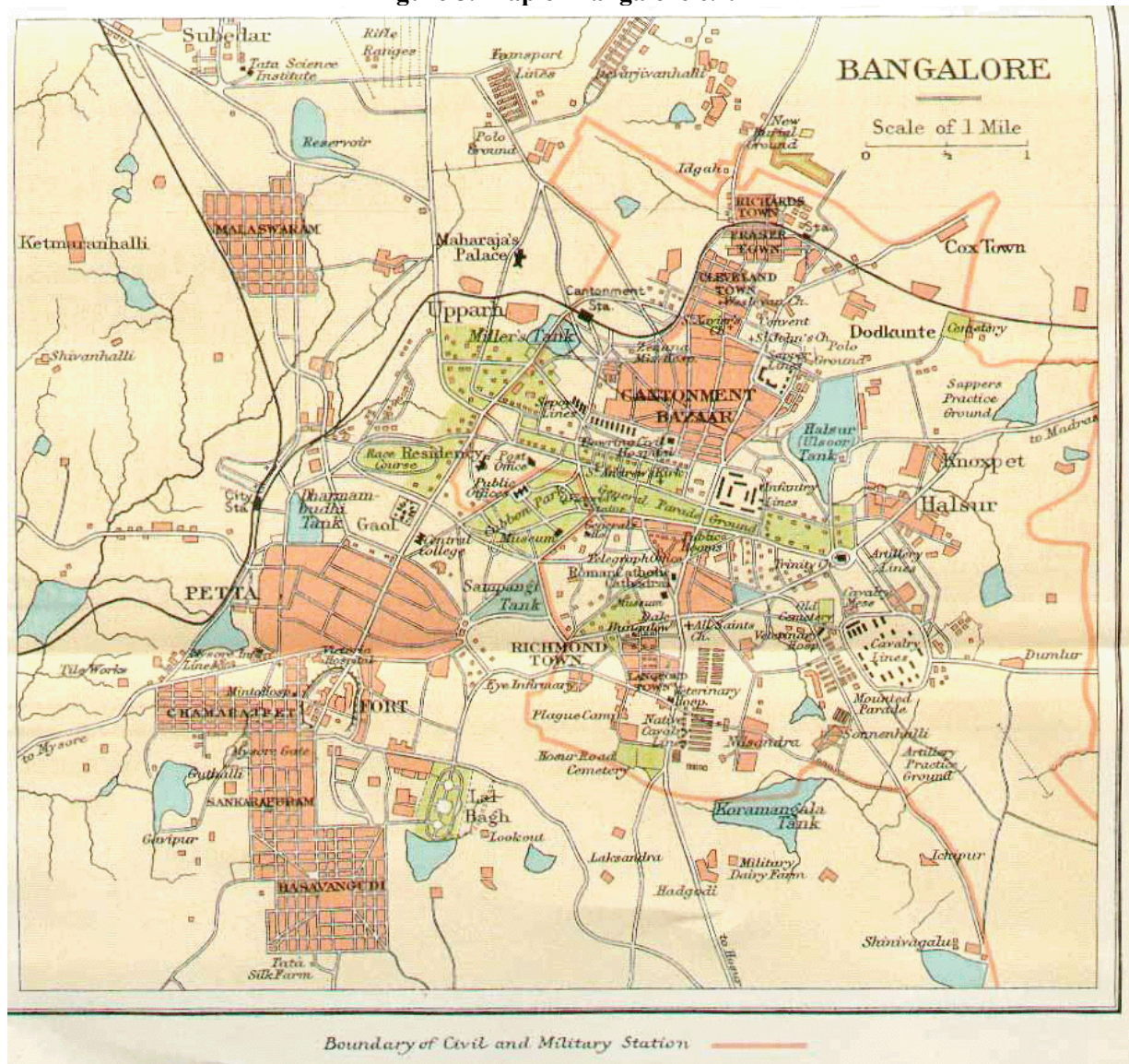
Source: Photograph appearing in Stephens (1922: 237)

Fraser Town was one in a series of suburbs to be built in the wake of the plague by Bangalore's municipality and City Improvement Committees, with financial assistance from the colonial government. In the months immediately following the outbreak, Basavanagudi lying to the south of the *pettah* was selected as the plague camp, but was subsequently transformed into a permanent "model hygienic suburb" covering 440 acres of agricultural land (Nair 2005: 51). Malleswaram, a layout on another 291 acres, was laid in the same year to the north of the *pettah* north of the *pettah*. Previously, the *dewan* Seshadri Iyer had overseen the design and building of the city's first suburban extensions known as Chamarajpet and Seshadripuram to the southwest of the *pettah* on 300 acres of agricultural land (see Figure 5). It was these initial experiments in "planned" urban development that advanced the city's urban frontier and that set in motion patterns of water access for generations to come. The suburban extensions, largely inspired by European planning ideals, differed from both the cantonment and the *pettah* in that they were based on an iron-grid alignment of streets that was amenable to a piped water system and water-borne sewerage.

A major reason why Bangalore's City Improvement Committees were able to assemble agricultural land and organize layouts—engulfing 26 villages in the years prior to and following the plague—(Hasan 1970: 180) was the passage of the Land Acquisition Act of 1898, the act whose powers Santosh had made reference to in the opening of this chapter. Akin to the doctrine of eminent domain²¹, the Land Acquisition Act allowed for the appropriation of land for public purposes and compensation at market rates (ALF 2003). The relatively greater abundance of land around Bangalore as compared to port cities like Bombay and Cape Town meant that urban expansion as a response to the plague was more feasible and actively encouraged by colonial planners as opposed to multi-story tenements.

²¹ Under eminent domain every state reserves the authority to appropriate, confiscate, or deprive the owner of the lands situated within the limits of its jurisdiction for purposes of public utility.

Figure 5. Map of Bangalore c.1924



Note: Map shows the new “grid-iron” extensions of Malaswaram (Malleswaram) in the north; Chamarajpet and Basavangudi in the south; and Fraser Town in the northeast. Source: Murray (1924)

What were the results of these early improvement schemes? In 1935, a study titled *Labor and Housing in Bangalore City* carried out at the University of Mysore found that approximately 5,000 housing sites had been created in 12 suburban extensions encircling the city, increasing the total area of the city by 50% as compared to 1891 (Srinivasan and Moorthy 1935). Over the same time period, the city’s population had grown by over 100%, largely because of in-migration from both “the well-to-do...who [came] there to take advantage of the climatic, educational, and other facilities”, and laborers from several rural districts of the Madras Presidency who came in search

for employment in the mills (ibid: 10)²². Those who migrated in search of mill labor—“the villagers with [their] hard and often fruitless labor over small and fragmentary holdings of land”—were also “those that [could not] afford houses on their own” (ibid). Monthly rents in the suburban extensions were too high for most workers earning an average of Rs. 19 per month (Nair 1998). But offering subsidies for housing the poor in the new extensions as a solution was out of question, since, as a colonial report of the time put it, “such a step would reduce the extensions’ value completely” (cited in Nair 1998: 222). Even in instances where the municipal authorities did make attempts to allot building sites to poorer classes in planned extensions, upper caste residents raised objections, such that, ultimately, the working class occupied very few suburban extensions.

Moreover, where town improvement had failed to provide adequate and cheap options for the poor in suburban extensions, the large private textile mills had also not been forthcoming with housing—and were not required to by law. “The mills provide practically nothing in the way of housing for the laborers they employ”, lamented the 1935 report; “...the mill workers have to house themselves as best as they can” (Srinivasan and Moorty 1935: 10). Thus, the combination of biopolitical programs targeting the “improvement” of the poor after the plague and the *laissez-faire* approach of colonial economics—as demonstrated both by the neglect of subsidized housing for the poor as well as the lack of labor laws requiring private mills to house their workers—had profound socio-spatial consequences for the city. As a result, the distribution of population between the old city and the new extensions was tremendously uneven: whereas the extensions accounted for 75% of the total area of the city by the 1930s, less than half of the city’s population lived there. The planned extensions were overwhelmingly occupied by the upper classes, while the *pettah*, Blackpally—and, increasingly, “new colonies of huts...on vacant land” (ibid)—were densely occupied by the working class.

This translated into widely uneven patterns of water access. By the 1920s, when it was clear that the Hesaraghatta Reservoir constructed at the end of the century was insufficient to meet the city’s growing industrial and domestic demands, M Visvesvaraya, one of Mysore’s most famous *dewans*, oversaw the second of the Arkavathy River extensions. Visvesvaraya envisaged that the construction of the Thippegondehalli (TG Halli) Reservoir on the river would provide a population of 300,000 people 20 gallons (90 liters) per capita per day, although even this was inadequate by the time the water came on-line in 1933 (Singh 1964). Because of the unevenness of the existing infrastructure in the town, however, the distribution of this supply remained inequitable: while the suburban extensions were serviced with piped water from both Hesaraghatta and TG Halli, laborers in tenements in and around the *pettah* continued to be “deficient of the essential conditions for decent living, namely, light, space, ventilation, privacy, sanitation and water supply” (Srinivasan and Moorty 1935: ii). Typically, they had to “look out for themselves in regard to water” (ibid: 31), and often being Adi-Dravidas (*i.e.* considered a lower caste), they were denied access to public taps. Note that in this period, borewell water was still not privately accessed because it was only after the Second World War that the diesel

²² Nair’s (1998) study shows that because of the broad-based landholding structure in Mysore, and relatively lower proportion of agricultural labor in Mysore (7.7%) as compared to the Madras presidency (19.8%), the former contributed relatively fewer agricultural laborers to industrial production as compared to the latter. As a result, nearly 50% of the labor force in the mills were non-Mysorean in origin (Srinivasan and Moorty 1935: 10).

pumpset technology necessary for groundwater pumping became commercially available. Most of the poor were thus dependent on the old tanks, although tank water had in many cases become too brackish for consumption (ibid) and increasingly endangered by industrial urbanization.

To conclude this section, Bangalore's frontier expansion in the first half of the 20th century was premised upon notions of "improving" the native "other". As visions of the capitalist modern were capturing the imagination of colonial engineers, so too, were racially conceived, biopolitical aspirations to reform the insalubrious habits of the natives. Unlike in Europe where colonial engineers had originally been trained, the biopolitics of improvement in Bangalore's case ultimately did not deliver on the promises of modernity for the majority. While improvement schemes and two waterworks projects on the Arkavathy River resulted in serviced grid-aligned sites for the upper class, affordable public housing, sanitation, and water supply continued to elude a majority working class population in the older core parts of the city. This included textile and other workers whose labor power was being exploited to fuel the city's industrial revival (Nair 1998). This essential fact continued to play itself out throughout the city's history. As Harris (2009: 819) has recently written about the experience more globally, "although the creation of City Improvement Trusts signified an interest in urban planning, their activities on the housing front were at best irrelevant to the needs of the masses". The gap between the modernist imaginary and material realities of urban life was perpetuated in part because of the refusal to invest substantially in public welfare projects. Indeed, the *laissez-faire* colonial environment served to entrench the socio-spatial differences inherited from the previous era. This history is critical to understanding Bangalore's contemporary politics of water, and to realizing the extent to which socio-spatial differences within the core were reproduced as the city expanded.

2.3. State-led Development and the Public Sector Bourgeoisie, ~1950s-80s

Planning the industrial city at the periphery

In the years leading up to independence in 1947, and subsequently, Bangalore's industrial and class structure underwent dramatic transformation. While the first half of the 20th century was marked by a period of private sector, textile-led industrialization—producing, for the first time, an urban proletariat—between the 1950s-80s, Bangalore became a center for public sector industries. This period saw the rise of a different actor: the public sector worker who came to identify explicitly with *middle class* values and aspirations, a fact equally critical to understanding contemporary socio-spatial trends.

Propelling much of the city's state-led industrial growth was a Nehruvian vision of modernization based on the promises of science and technology; indeed, for the first prime minister of India, Bangalore heralded a "city of the future". Based on decisions in New Delhi to locate strategically sensitive sectors away from borders and coastlands, many nationalized heavy industries were set up in the city during this time—the most significant of which were Hindustan Aeronautics Limited (1940), Indian Telephone Industries (1948), Hindustan Machine Tools (1955), and Bharath Electronics Limited (1956), with several more being added throughout the 1960s and 1970s. The presence of premier educational establishments, such as the Indian Institute of Science and other engineering colleges founded by Mysore's *dewans*, also provided

the research and development backing for the state's new technological enterprises. In line with the prevailing economic wisdom of the post-war era, the government controlled many of these crucial industries and prevented foreign corporations from penetrating the domestic economy by substituting Indian products for foreign imports (Heitzman 2004).

These economic shifts shaped urban space in new ways, even while certain legacies of colonial rule endured. While in the colonial period of textile industrialization, most economic activity was concentrated on the western edges of the city beyond the *pettah*, during public sector-led growth, the city began to expand several miles to the north and east—thereby “leapfrogging” large tracts of agricultural land (Batley 1989). Sustaining a legacy of “improvement” inherited from the colonial era, a new agency, the City Improvement Trust Board (CITB), was created in 1945, following which the *pettah* and cantonment were merged into a unified Bangalore City Corporation in 1949. The CITB's overall mandate was no different from the colonial City Improvement Committees described above; it, too, concerned itself with slum clearance and the building of planned suburban extensions. The language of modernity, as Dipesh Chakrabarty (2002: 66) observes—“even of certain ideas of beauty related to the management of public space”—transcends colonial and post-colonial imaginaries. Indeed, the urban planning and engineering achievements of the colonial *dewans* were upheld in nationalist thought as the very embodiment of modern India.

But in contrast to the meager housing record under colonial *laissez-faire* economics, under the post-independence statist paradigm of development, the CITB was *charged* with ensuring that an emerging public sector workforce was adequately housed—at least on paper. To this end, between 1945 and 1976, the CITB developed and sold over 60,000 sites in 124 layouts spanning some 12,000 acres of agricultural land (Batley 1989; Nair 2005). This included layouts such as Jaymahal to the north, “characterized by good bungalows with compounds meant for well-to-do persons”; Jayangar in the south, “mainly meant for the middle class”; and Rajajinagar in the west, a suburb meant for industrial workers (Singh 1964: 25).

The ease of acquiring agricultural land around Bangalore for residential schemes in the years following independence was due in large part to a stagnation and even decline in agricultural productivity throughout the country. Nehru's emphasis on heavy industry, argues Atul Kohli (2004), occurred to the relative neglect of investments in better irrigation and higher use of fertilizers, and it was not until Green Revolution breakthroughs that agricultural inputs became more available—although, as history has shown, these largely benefited richer farmers with larger landholdings. As a result, a number of smaller unprofitable farmers in the city's immediate vicinity growing dryland crops (e.g. *jowar* or *raagi*) were targeted for state acquisitions for residential layouts.

In addition to the CITB layouts, public sector factories were required to house at least 50% of their workers, since the CITB's achievements—especially in light of the unhoused proletarian population inherited from the colonial era—was still considered “numerically inadequate to the need” (Government of Mysore 1954: 23). In 1956, the Indian Telephone Industry, for instance, acquired 368 acres of land in the surrounding villages of KR Puram and Byatarayanapura (again, mostly from small landholders) to build the self-contained industrial township of Dooravinar. Housing 1,500 workers and their families, Dooravinar, like other

townships, was self-governed and self-sufficient—complete with its own schools, medical facilities, restaurants, and shops (Nair 2005). As such, there was little need for township inhabitants to travel to or develop connections with other parts of Bangalore.

As public sector workers began occupying Dooravingar and establishing connections with surrounding villages, many chose to settle in the area permanently—particularly after retiring. On modest pensions, however, they found that they were unable to afford sites in planned settlements, and therefore began to develop unauthorized housing settlements in the surrounding villages, often with the help of local government officials and politicians. I discuss the increasing informalization of public sector workers later in this section. For now, it is important to note that public sector-led industrialization, with its preeminent nationalized factories and well-serviced peripheral townships, also spawned several informal “local economies” (Benjamin and Bhuvaneshwari 2001). This included small-scale industries for recycling, machine tools, metal bodybuilding, and micro manufacturing—many of which were located in the villages surrounding the factories. A favorable post-war international trade environment for garment exports from the Third World, moreover, in conjunction with domestic policies encouraging small-scale industries, led to a spurt in garment production in peri-urban Bangalore (Pani 2009). The ancillary industries for public sector units provided cheap labor for garment factories, which in turn, encouraged the demand for low-cost housing at the periphery in unserviced layouts. To facilitate this industrial growth, in 1966, the state government set up the Karnataka Industrial Areas Development Board (KIADB) with powers to acquire land in peripheral areas for industrial interests. In its early years, KIADB helped establish estates for local industries (e.g. Peenya Industrial Area north of the city) with relative ease, but in later years, it became embroiled in intense conflicts over farmland as its activities expanded to accommodate an influx of multinational companies (see Jamwal 2006: 43-45).

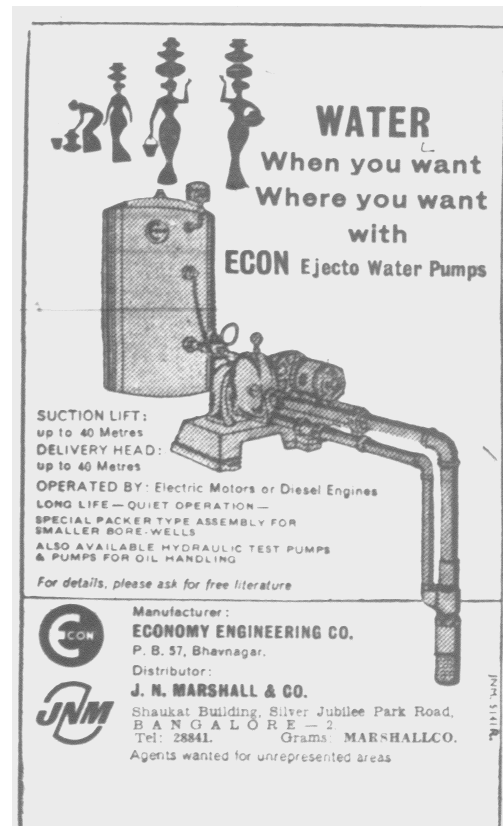
As the boundaries of the city were stretched through both formal and informal processes of industrial growth, new demands for water were generated. By 1961, the metropolitan population had touched 1.2 million, thereby tripling over three decades (Shashidhar 2001). Two further expansions to the TG Halli reservoir on the Arkavathy River were commissioned in the 1950s-60s to increase supply. However, once priority demands from industry were deducted, the new influx of water from TG Halli—distributed within the city by the Bangalore City Corporation—was not able to satisfy domestic demand (Singh 1964).

In the 1960s, residents routinely lodged complaints in the *Deccan Herald* about water availability, even in the so-called planned layouts.²³ At the time, it was not uncommon to find “pathetic scenes of housewives with scores of empty vessels remaining stranded for hours near public taps, unending complaints of hotelers and owners of boarding and lodging houses alleging non-availability of water, and scenes of frantic endeavors by the staff of the water supply department to dispatch water-loaded lorries to places of greater needs” (Hasan 1970: 189). It is therefore not surprising that around the late 1960s, advertisements for groundwater pumping technology started to appear more regularly in the *Deccan Herald* (see Figure 6). These early pumps could penetrate a depth of only 130 ft (40 meters)—sufficient to tap Bangalore’s aquifer

²³ See for instance “City cries halt to industrial expansion” in *Deccan Herald*, June 17 (1967), “CM will tackle City water problem” in *Deccan Herald*, Saturday 24 (1968a) and “Houses without amenities” in *Deccan Herald*, March 15, (1968b).

at the time—but would intensify in pumping capacity by over ten times over the next 40 years as the city’s water table fell below 1,000 ft.

Figure 6. Advertisement for groundwater pump in the 1960s



Source: Deccan Herald, March 15, (1968c).

By the 1960s, two problems had thus begun to loom large in the city: the growth of unauthorized sites, particularly in and around the CITB’s planned settlements and the government factories, and the city’s increasingly vexing challenge of surface water supply. The time had come not only to “look beyond TG Halli for a perennial source of water” (Hasan 1970: 189), but also to vest in new institutions greater powers to plan, fund, and develop the city’s resources.

From “improvement” to “development”: Consolidating power through parastatals

Several scholars (e.g. Desfor and Vesalon 2008; Schoenberger 2003) find that Harvey’s “spatial fix”—the tendency for societies to periodically invest in infrastructure and the built environment to avert crises inherent to capitalism—is often entangled with what Peck and Tickell (1994) call an “institutional fix”. An “institutional fix” refers to the qualitative reorganization of modes of state power in order to respond to economic pressures and ensure continued capitalist accumulation. Institutional fixes often result in the creation of new spaces of authority within the state at different scales—e.g. regional instead of local (cf. Brenner 2004). While the related ideas of “institutional fix” and “state re-scaling” are often invoked in the

context of neoliberalism, it is important to recognize the historical conjunctures *prior* to neoliberalism at which these fixes occurred. The formation of urban parastatals for the development of water and land in the 1960s-70s can be seen as a particular type of “institutional fix” at a critical moment in Bangalore’s post-colonial development trajectory.

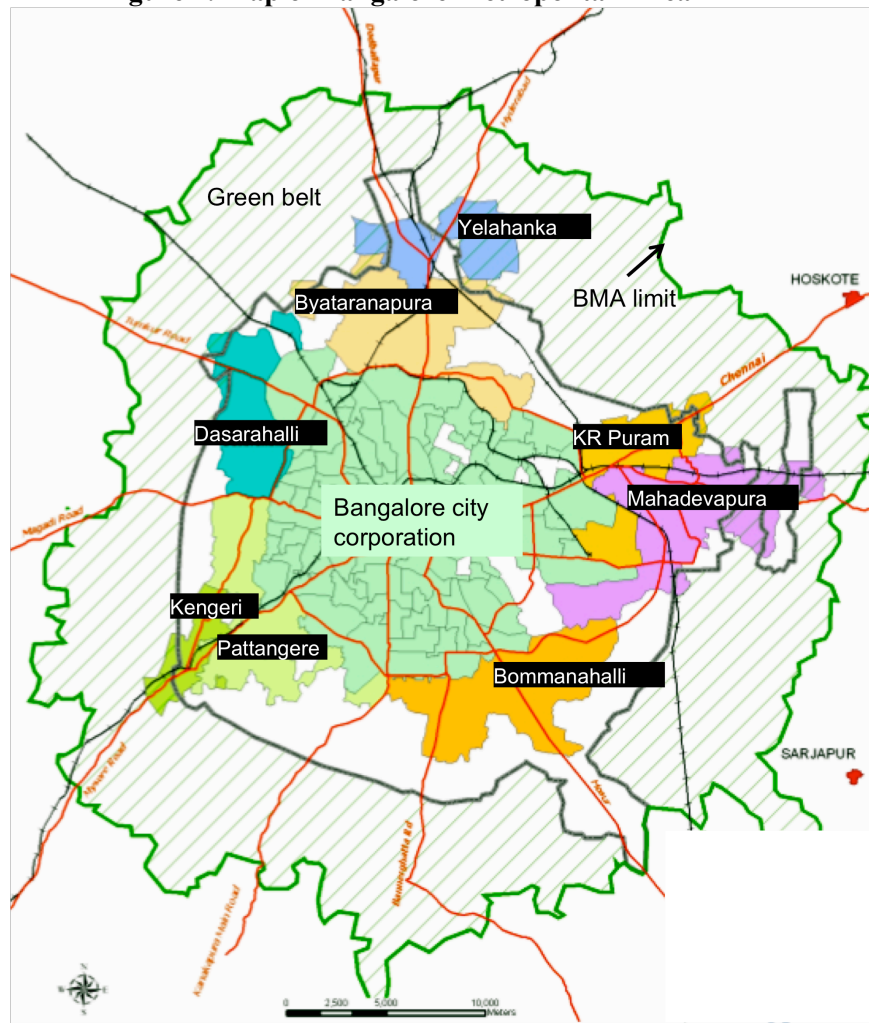
By the 1960s, a public debate was raging around the need for alternative water options—the most promising but also the most expensive of which was the Cauvery River located nearly 100 km to the southwest of the city. Given the costs of laying a new pipeline to the city, the state government began to solicit interest from the World Bank, whom, at the time, was heavily involved in financing capital-intensive water supply projects in the developing world. The prevailing wisdom of the time frequently offered by the World Bank, moreover, favored the formation of urban water parastatals, corporations in which ownership and management rest entirely with the state (Mani 2001).²⁴ Centralized and directly accountable to the State government but not to locally elected representatives, the institutional architecture of parastatals is not only highly conducive to development loans, but also allows decisions to be taken with little interference from the local government.

A visiting World Bank team that came to appraise the finances of the Cauvery project in 1962 thus “insisted upon the need for creating an autonomous board for handling the Cauvery Water Supply Scheme on commercial lines”²⁵. Two years later, under a Congress regime that favored the centralization of power, the Bangalore Water Supply and Sewerage Board (BWSSB) came into existence. The agency has a more extensive mandate than previous water-related agencies, both in terms of its jurisdiction and its core functions. Headed by a senior officer of the Indian Administrative Services, the BWSSB reports directly to the state government, but not to the city’s elected representatives. Specifically, it is tasked with the supply and management of water and sewerage for the Bangalore Metropolitan Area, an expanse that encompasses both the corporation area as well as the “green belt” flanking the city—the area that has seen the greatest illegal development activity over the past three decades (Figure 7).

²⁴ Note that experience throughout India on water parastatal formation is uneven. For instance, Bombay with its flourishing industry and larger tax base, did not find it necessary to set up a parastatal water board nor seek loans for water supply during this period. This is one reason why Mumbai’s water supply continues to be managed by the elected city government (NIUA 2004).

²⁵ http://www.bwssb.org/formation_of_board.html, accessed 5/5/2009

Figure 7. Map of Bangalore Metropolitan Area



Note: In 1984, the Bangalore Metropolitan Area covered an area of 1,279 sq. km, which included the urban conurbation of 449 sq. km (of which the Bangalore City Corporation is a part) and 830 sq. km of “green belt” area. By 2007 when the latest master plan was finalized, the conurbation area had increased to 786 sq. km and the green belt had shrunk to 455 sq. km. *Source:* AusAid and SCE Creocan, India.

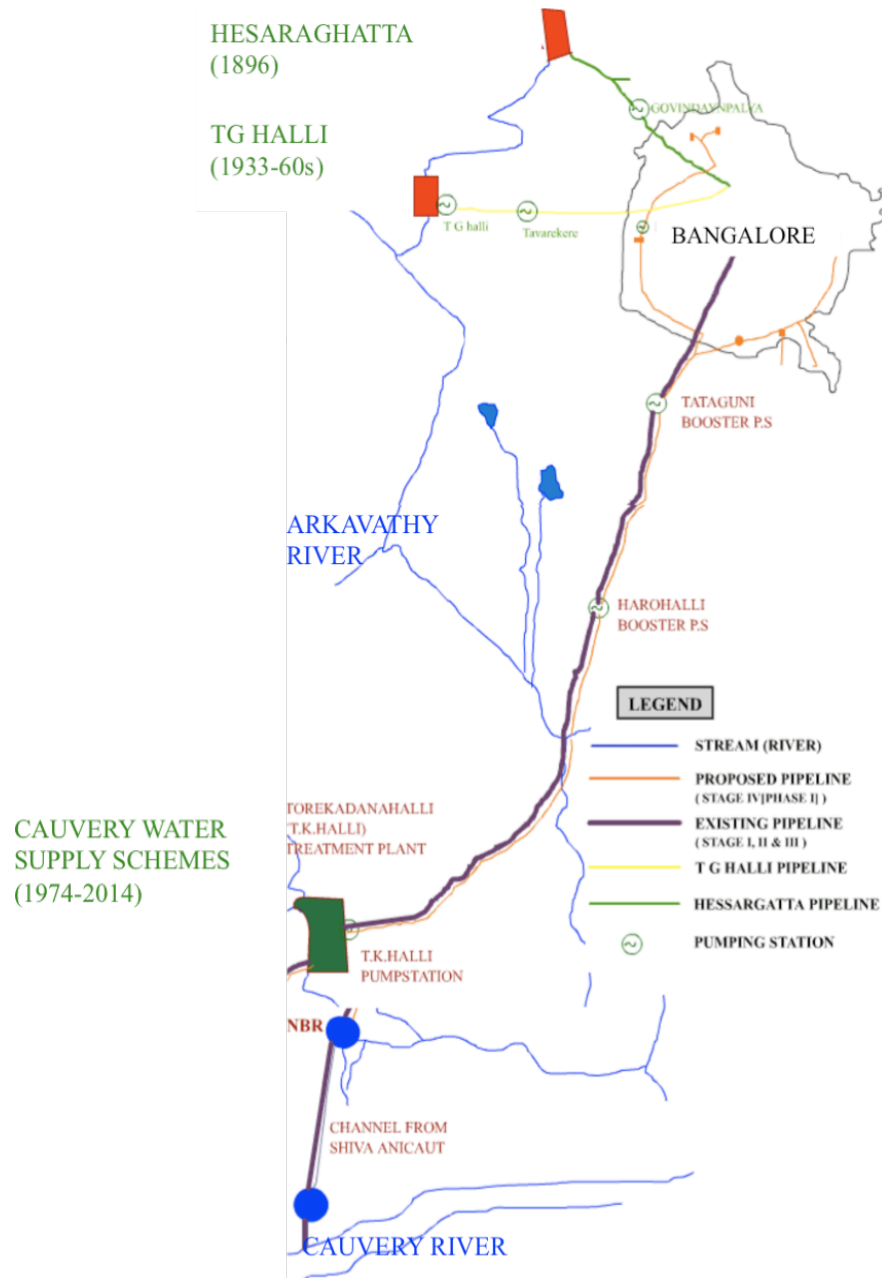
The BWSSB’s first major project completed in 1974 with assistance from the World Bank and the Government of India was “Stage I” of the Cauvery water supply scheme, which provides the city with 135 million liters per day (MLD). Water is pumped from the Cauvery River to the Torekandanahalli (TK Halli) treatment plant (see Figure 8), after which it is pumped to the city—climbing some 500 m uphill in total—at significant energy and capital costs. The importance of this first Cauvery waterworks project despite its costs—estimated at Rs. 26 *crores*²⁶, or more than 40 times the cost of the most recent Arkavathy project before it (Hasan 1970; Singh 1964)—was demonstrated by the fact that the chief minister of the time declared publically that “in the implementation of the Cauvery Scheme, *money is no consideration*” (cited in Hasan 1970: 190, emphasis added). This political perspective was to change dramatically over

²⁶ 1 *crore* = 10 million

the next three decades, as the Board implemented four more stages of Cauvery waterworks schemes and cost recovery increasingly became the *modus operandi*. The distribution of water supply from the latest of these schemes, “Stage IV, phase I” completed in 2002, and its governance, financing, and politics, is the subject that this dissertation investigates in the following chapters.

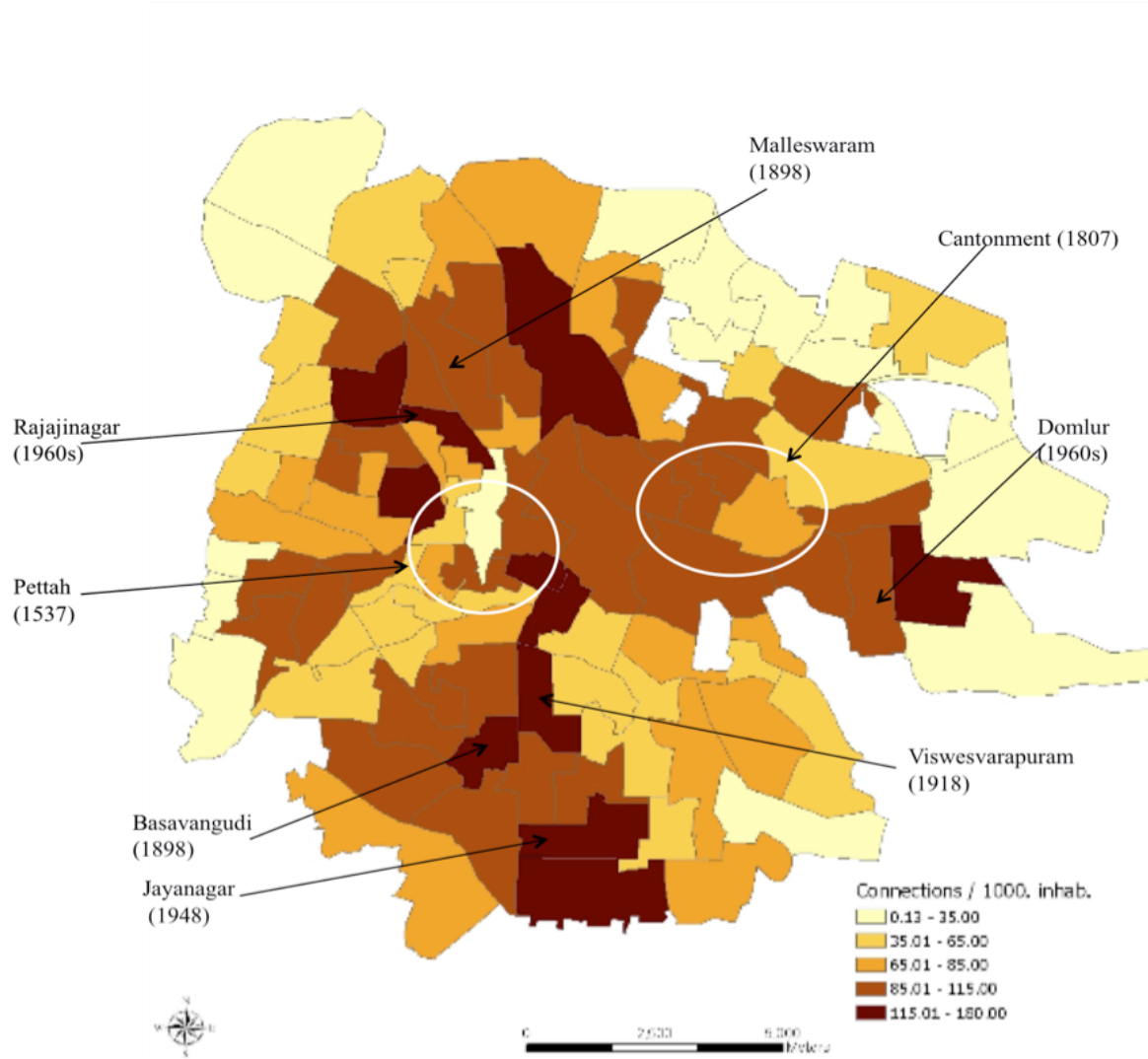
Today, although the BWSSB is responsible for managing and distributing nearly 900 MLD (the combined amounts from Arkavathy and Cauvery sources), utility water provision constitutes only a proportion (roughly 50% according to most estimates) of water consumed in the city, if its distribution losses (~40%) are accounted for (see Appendix B). Much of the remaining demand is met by groundwater from tankers, private wells, and public wells. The distribution of the Board’s 500,000 connections throughout the city, moreover, is highly uneven and is also strongly correlated with the degree to which areas are “planned”. That is, BWSSB connections are more prevalent in the CITB’s and more recently, the BDA’s, planned extensions than in areas that are not planned. Taking the number of BWSSB connections per 1,000 inhabitants as a measure of water access in the city (a common international standard), it is clear that, on average, areas such as Malleshwaram, Basavangudi, Rajajinagar, and Jayanagar have a greater incidence of connections—between 115-180 connections/1,000 people—than unplanned areas. In the heart of the old city lie areas with the lowest concentration of BWSSB connections anywhere, at fewer than 35 connections/1,000 people (see Figure 9).

Figure 8. Bangalore's water sources



Source: Adapted from BWSSB

Figure 9. BWSSB water connections/1,000 habitants in 2002



Source: SCE Creoccean

At the outer edges of the city, the concentration of BWSSB connections mirrors the distribution at the heart of the city in the old *pettah*: many areas here, too, have under 35 connections per 1,000 inhabitants. On the city's periphery, less than 10% of the population depends on the BWSSB for water. The patch-worked distribution of BWSSB connections throughout the city as can be seen from Figure 9 is a phenomenon that arises directly from colonial and post-colonial land use and planning legacies. In the absence of BWSSB-provided water, many households within the city—and the majority in peri-urban areas—opt for groundwater, either provided by the local governments of the outlying villages and municipalities, or from private sources. In turn, the ability to tap groundwater is strongly correlated with access to land, a subject to which I turn in the following section.

The formation of urban water parastatals in Karnataka during the 1960s was not the only sign of the reorganization and rescaling of power by the developmental state. In 1976, the state government of Karnataka amended the city's planning legislations to establish a new organization, the Bangalore Development Authority (BDA), thus replacing the CITB as the city's primary planning authority. By vesting all residential land acquisition and master planning powers in one agency that reported directly to the state government (note that previously the Bangalore city corporation and CITB had shared these functions), the creation of the BDA under the BDA Act of 1976 signaled the entry of "the most powerful land broker in the metropolitan area" yet (Heitzman 2004: 55).

Like the BWSSB, the BDA's jurisdiction covers the entire Bangalore Metropolitan Area (depicted by the outer green line in Figure 7), but in practice, the BDA's activities are mainly concentrated between the outer boundaries of the city corporation and the inner boundaries of the green belt (Batley 1989). Within this peripheral expanse, the BDA's procedure of land development is similar to the erstwhile CITB: it, too, is empowered to notify and compulsorily acquire land in order to develop it for the "public interest." Apart from compulsory acquisition, however, the BDA has at its disposal additional mechanisms for maintaining checks and balances on land conversions, and reallocating land. During the same decade of the BDA's formation, Congress Party's Chief Minister's Devraj Urs' (1972-80) passed the Karnataka Land Reforms (Amendment) Act (1974) and the Urban Land (Ceiling and Regulation) Act (1976)—both attempts at socializing and regulating land. While the former prevented non-farmers from owning land in the green belt area, the latter intended for land held in excess of 1,000 sq. m in urban areas to be acquired for the public purpose, with the main goal of "[preventing] concentration of urban land in the hands of a few persons and speculation and profiteering" (cited in Ravindra 1996: 45).

Via acquisition and transfer powers, in the first decade of its existence from 1976-1987, the BDA allotted a mere 41,921 sites across 20 residential layouts on the outskirts of the city (Batley 1989; Nair 2005). This amount fell far short of the requirements of the city, which the government estimated was 75,000 dwelling units a year (Nair 2005: 189). It also paled in comparison to the estimated 150,000 unauthorized sites in the city by the late 1980s (Batley 1989). As Schenk (1997: 218) comments, "this means that almost all housing activities...[at] the Bangalore fringe have been undertaken in spite of the claims of the overall planning and control of the BDA". The two main legal mechanisms—compulsory acquisition and the transfer of surplus land under the land ceiling act—were either circumvented or used as ways to encourage a market in unauthorized development. The lengthy process through which the BDA acquired land, frequently taking five to ten years from the date of "notification" to actual acquisition, often meant that the interim period was ripe for speculation and unauthorized construction. Via the Land Acquisition Act of 1894, land must first be "notified" (that is, officially demarcated) for acquisition by the BDA. Thereafter, the state government must certify that it serves a "public purpose" and recommend a due rate of compensation to the owner, following which acquisition is to take place. In reality, however, the gap between notification and acquisition can be anywhere from five to ten years because landowners frequently obtain stay orders from the court on further action by the BDA. By the late 1980s, there were 270 cases against the BDA pending in court (Ravindra 1996: 127), and by the late 1990s, the number had spiraled to 5,660 cases

(Nair 2005: 181). As a result, out of a total area of 18,643 acres notified by BDA between 1976 and 1988, only 50% was actually acquired by the authority (Ravindra 1996: 130).

The literature cites two main reasons for BDA's poor land acquisition rate and unimpressive record on the housing front. First, because of the low initial compensation award recommended by the BDA to land owners²⁷, instead of parting with their land, landowners often entered into hasty and illegal sale agreements. By quickly selling off their land after initial notification by the BDA, "land owners avoid the laborious process of official land acquisition and low official prices" (Batley 1989: 48). Since low prices mean that compulsory acquisition by the state is the least desirable way to cede land from the perspective of the landowner, *even the threat* (real or perceived) of imminent acquisition prompts hasty sales to private developers. This is exactly what happened in the story of Santosh's grandfather referred to at the beginning of this chapter. Fearing state acquisition and encouraged by a local politician, Santosh's grandfather sold his land to a private developer—or whom Santosh called the "land mafia" because of the developer's likely association with politicians and thugs, and control over large areas of land in the area.

Second, as Ravindra (1996) finds, the BDA was not able to make adequate use of the Urban Land (Ceiling and Regulation) Act to redistribute large landholdings so as to make land available for development. This is because several exemptions were built into the Act such that "valuable land which could have been utilized for public purposes and for housing weaker sections has been lost for private and commercial purposes" (ibid: 136). The "vague language" of the law that gave scope for "ambiguous interpretations" and the "discretionary power vested in the state government to grant exemptions" (ibid) resulted in an inordinately large amount of exemptions. In other words, the maximum cap on land ownership under the legislation was frequently flouted. According to his study, a paltry 4% of the land declared as surplus under the ULCRA (i.e. holdings above 1,000 sq. m) between 1976-1987 was actually acquired by the BDA and developed in line with the "public purpose". As Kohli (1984) and Pani (1982) have argued with respect to the political economy of land reforms in Karnataka more generally, far more was claimed about the redistributive impacts of reforms under Urs' regime than was actually achieved. Unlike the experience of left-leaning states like West Bengal, land reforms in Karnataka proceeded largely so as to protect the interests of the landed rural and urban elite; in effect, reforms "had stated objectives of change accompanied by stated loopholes to avoid change" (Pani 1982: 45).

The above points to the reasons why the BDA's track record in providing serviced sites with water, sanitation, and other infrastructure since its inception through formalized routes leaves much to be desired. But it must be noted that the agency has been far more successful at encouraging informal or unauthorized settlement at the periphery in the form of "cooperative house building societies". The policy of promoting cooperative housing emerged at a time of public sector-led industrial growth in which industries provided financial assistance for employee-owned schemes. The schemes were thus designed to cater largely to workers in

²⁷ Note that this is not only because of low compensation rates, but also because land acquisition in Bangalore is harsher than in other cities: while in Bangalore, the original landowner loses most of his/her land upon state acquisition, in cities such as Surat, a portion of land is returned to the original landowner after it is serviced (Kumar 2001).

government-run industrial undertakings, employees in government offices, and employees in quasi-government institutions such as nationalized banks (Ravindra 1996). Several cooperatives acquired land directly from farmers at the rural-urban fringe and greenbelt, which was not only unauthorized as per planning acts, but which also proved to be costly and difficult to service with water infrastructure. Yet the BDA sanctioned 97 cooperative housing schemes between 1976 and 1986—far less than the number it had developed itself during the same period—and the state government further relaxed planning regulations so as to ensure BWSSB water and other benefits to them (ibid: 131-134). This was particularly alarming for commentators at the time, especially given the fact that several cooperative housing schemes were not *bona fide*, relying on “bogus membership, bogus agreements with the landlords, and irregularities in the distribution of sites” (ibid: 134).

The lack of records and maps of sites under the jurisdiction of the BDA, moreover, facilitated its dealings, much to the frustration of land tribunals appointed to investigate its operations (Nair 2005). As Roy (2003a, 2008) suggests by the notion of “the politics of unmapping”, the absence of records about land can *itself* be a form of state power. In the case of Calcutta, the invisibility of land records allows the regime the “territorialized flexibility” it needs to pursue its various projects of accumulation. In Bangalore’s case, it is not through regime politics that unauthorized development proceeds, but through the fractured politico-legal landscape that emerged in the post-independence era, as I explain further below.

Explaining revenue layouts

As the previous section has shown, parastatals for urban water and land in Bangalore established during a period of state-led development catered to only a proportion of demands in the city. Particularly at the peri-urban frontier, unregulated and informal modes of accessing water and land evolved in tandem with, and *sometimes as a result of*, the “formal” activities of the BWSSB and BDA. This phenomenon is not unique to Bangalore, nor to India. Across India, between 40-70% of urban dwellers live in settlements that fall outside the purview of formal planning institutions (ALF 2003). In Brazil, Caldeira’s (2000) research shows that illegal subdivisions (*loteamentos*) proliferated on the outskirts of Sao Paulo to the extent that they were four times the number of legal settlements by the 1990s. But what *is* perhaps more surprising as discovered by AlSayyad and Roy (2004) in a comparative study in the Middle East, South Asia, and Latin America is that such forms of housing are increasingly being demanded by middle class residents. In this section, I examine in greater detail the reasons for what I am calling the informalization of Bangalore’s middle classes.

Amongst the first participants in unauthorized land development at the peripheries from the 1970s onwards were public sector workers. Take the example of Mr Shama Rao: I first visited Rao in a “revenue layout” of Ramamurthynagar in the summer of 2008. Ramamurthynagar is located just north of the Indian Telephone Industries township of Dooravinar in the municipality of KR Puram, some 25 km to the northeast of Bangalore. A

“revenue layout”, as I learned upon repeatedly hearing the term²⁸, consists of agricultural land, usually purchased from a farmer or a broker by a private developer, and carved into to a residential subdivision with minimal amenities (e.g. roads, drains, water supply, etc). These layouts possess varying degrees of legality, but are generally considered “unauthorized” by the BDA. Thus, Bangalore-based Alternative Law Forum describes revenue layouts as:

...the illegal settlements of the middle and upper middle class, (basically those upwardly mobile on the money ladder) as well those at the lower end. They access political patronage for services, can invest money in developmental processes and are more concerned about tenure security and access to basic services than the urban poor (ALF 2003: 91-92).

I visited Ramamurthynagar because its Resident Welfare Association (RWA) headed by the tireless Rao, its long-time president, had been featured in the English dailies for some years now for its struggles over service delivery, and, more recently, user contributions for the Greater Bangalore water project. A contact at *The Hindu* newspaper had given me Rao’s phone number, urging me to speak to him myself if I wanted to understand anything about the origins and local politics of Bangalore’s infamous “revenue layouts”. Because Rao was concerned that my research assistant, Prasanna, and I would not be able to locate his house situated deep within a maze of narrow and poorly marked neighborhood streets on the northeastern margins of the city, he met us at a corner teashop, and we followed him to his simple two-storied bungalow in a sleepy cul-de-sac of Ramamurthynagar. It was a classic balmy Bangalore day, and as we settled into some fresh limejuice on his outdoor verandah, we began to talk about his life, his neighborhood, and his activism.

Rao’s family had migrated from Maharashtra several generations ago (his grandfather was born in Bangalore). At home, his family switched easily between Marathi, which he still considered to be his mother tongue, Kannada, and Hindi, although he spoke to Prasanna and I primarily in English and Kannada. Prior to moving to the neighborhood, Rao had worked for the Indian Telephone Industries for 30 years and retired at a mid-level managerial level. When prompted about why he had moved to Ramamurthynagar, a collection of unauthorized revenue layouts, he responded:

I used to live in the ITI [Indian Telephone Industries] colony and came here after my retirement in 1987. After my retirement, I got 4-5 *lakhs* [Rs. 400,000-500,000] and with that I purchased this house and another house [points to the adjacent house]. With two houses, I could settle all my children...People who were earning Rs. 5,000 to 8,000 per month, people like me, they wanted a small place to stay. So what did they do? This is all agricultural land they purchased. All over Ramamurthynagar—no, all over the outskirts, it is like this. At Rs. 50-100 per sq. ft, you can buy a small site of your own—30 x 40 ft site or 60 x 40 ft site—for Rs. 2.5 *lakhs* [250,000]. You can get the DC’s [Deputy Commissioner]

²⁸ While there is little information on the origins of this idiosyncratic term, it can be assumed that “revenue layouts” stems from the colonial terminology of “revenue land”—i.e. agricultural land taxed accordingly. Revenue *layout*—typically used to connote urban settlement—implies that this land is now used for residential settlement.

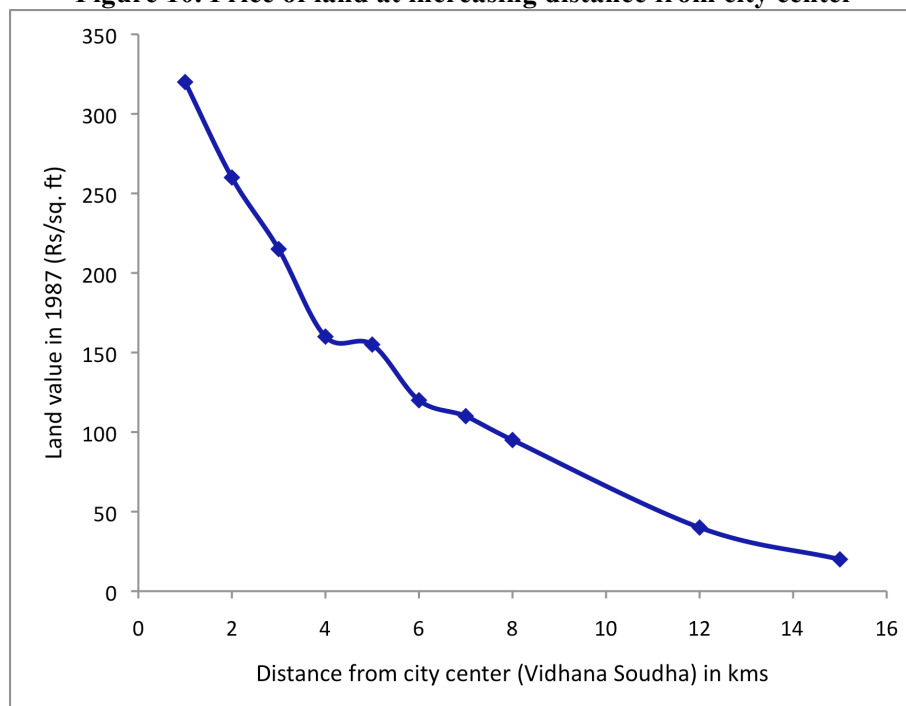
approval. What is the other remedy? When land is not available, somewhere you will have to go and buy. Just like you have to eat.

Rao's response helps to explain a few important dimensions of the revenue layout phenomenon. First, Rao settled in his neighborhood in 1987—prior to the year to which India's economic liberalization is typically pegged, i.e. 1991, and well before neoliberal infrastructure reforms took root. This empirical finding casts a shadow of doubt on Graham and Marvin's (2001: 103) assertion that a dramatic collapse in urban planning and the "modern infrastructure ideal" took place post-liberalization. In reality, patterns related to informal and indeed "splintered" (ibid) water access have a much longer and more complex history, stemming from colonial and post-colonial history (cf. Coutard 2008; Kooy and Bakker 2008a).

Second, in saying he had purchased not only one, but *two* houses in the late 1980s, Rao betrays strongly middle class aspirations around home ownership. I discuss the phenomenon and politics of the peripheralized middle class in greater detail in Chapter 6, but it is worth noting here the historical role of the public sector in fostering aspirations for home ownership. These aspirations, argues Nair (2005), arose out of a period of state-led development, in which the ideal of the low-rise plotted house common to public sector townships maintained a hold on employee imaginations. Revenue sites adjacent to peripheral factories in areas long-familiar to workers allowed them to reincarnate the dream of home ownership once they retired, even if these illegal sites demanded continuous engagement with the state to make them actually livable—engagement they were well prepared to undertake after 30 years of being intimately connected with the state.

The third dimension comprises the affordability and availability of revenue layouts. Given his post-retirement savings, even two plots of revenue land at less than Rs. 100 per sq. ft were affordable for Rao. In the late 1980s, land in revenue layouts cost up to 50 times less than in CITB layouts, now located in areas considered to be central (Ravindra 1996: 84). Moreover, there was and continues to be a negative correlation between distance from the city center and the price of land, no doubt pushing settlement further into the fringes over time (Figure 10).

Figure 10. Price of land at increasing distance from city center



Source: Ravindra (1996: 84)

Equally important is the issue of availability. What did Rao mean when he said “when land is not available, somewhere you will have to go and buy”? Clearly, land is “available” as seen by the fact that in the late 1980s, there was an estimated 150,000 unauthorized sites in revenue layouts (Batley 1989), and by 2007-09 when I was conducting fieldwork, the media routinely put the estimate anywhere between 500,000 and 1,000,000—the vast majority of which are located in Greater Bangalore (see for instance The Hindu 2009). What Rao meant, of course, is that *served* land—land falling under the jurisdiction of the BDA—is hard to come by. He further qualified his statement by the following:

Bangalore is getting so big and there are only two to three bodies that are supposed to provide housing. One is the Karnataka Housing Board. The second is the BDA. What else? The Karnataka Slum Clearance...whatever it is deals with slums. When they have miserably failed, where will people go? BDA calls for applications for 2,000 houses and it gets 200,000 applications. Where will the rest of the 198,000 people go?

As already discussed above, the BDA has been unable to meet the demand for serviced settlements over the course of its existence, but rather, has been involved in enabling cooperative group housing schemes—often tenuously legal—from the 1970s onwards. Here, Rao is pointing out the widespread perception of the failure of Bangalore’s housing and planning authorities to fulfill their formal mandates. Since the 1990s, moreover, many feel that the BDA seems to be

“reinventing itself to benefit the IT industry” by focusing on building roads and flyovers to connect technology parks to the central business district, rather than on housing (Kumar 2007)²⁹.

The fourth dimension emerging from Rao’s statement relates to his understanding of and dealings with “the state”, and the complex and opaque terrain of land legislation pertaining to urban fringe areas. I discuss the insurgent politics of the peripheralized middle class in greater ethnographic detail in the chapters to come. Here, a few clarifications about “the state” are in order. When Rao mentioned “the DC”, or the Deputy Commissioner, he was referring to an administrator at the *district*³⁰ level. As an inheritance from the colonial era called “collector” in some areas of India, the DC was once charged with the all-important task of revenue collection at the district and sub-district [*taluk*] levels. Today, the BDA presents a challenge to the politico-legal authority of the DC. Under Section 95 of the Land Revenue Act (1964), the DC is empowered to grant approvals for conversions from agricultural to residential land upon payment of a fee (this process is known colloquially as DC-conversion).³¹ But under the Town and Country Planning Act (1961) and the BDA Act (1976), conversions falling *inside* the jurisdiction of the planning authority (i.e. the Bangalore Metropolitan Area) can only be granted by the planning authority (i.e. the BDA). In practice, however, “the Deputy Commissioner has been granting permission for conversions *without reference to the Planning Authority*” (Ravindra 1996: 115, emphasis added). Note that *even after* amendments to the Land Revenue Act in 1984 mandating that the DC’s permission “would no longer be considered lawful” for conversions in the green belt area, “the Deputy Commissioner continues to give permission for conversion of agricultural land” on an ad-hoc basis (ibid). These are resolutely “unauthorized revenue layouts” in the eyes of the Government of Karnataka. To complicate matters, the *local* government—usually the City or Town Municipal Council—provides tacit sanction for revenue layouts by collecting property taxes and betterment charges in return for a minimal amount of infrastructure. This, in turn, gradually confers tenure security on the layout. Finally, village councils [*grama panchayats*] *also* sanction urban residential development, often beyond the permissible boundaries for village expansion, giving rise to the dubiously legal and totally unserved *grama thana* sites in which 9% in a sample of a sample of 44 interviewees lived (see Chapter 6).

What emerges from the preceding is that Bangalore’s peri-urban frontier is characterized by a highly fractured politico-legal landscape (Figure 11). Here, *multiple* and *competing* forms of authority exist at different scales (the parastatals BDA and BWSSB, the district-level DC, and

²⁹ Note that it is not merely that BDA’s supply of serviced plots is insufficient, but also that the eligibility criteria for BDA layouts are so restrictive, which further compounds the problem of availability (Batley 1989). For instance, the BDA website says that to be eligible for a site, “you should have domicile in Karnataka for not less than 15 years prior to the date of registration”, making it impossible for new immigrants to qualify. Furthermore, 28% of all BDA sites are reserved for defense, central government, and state government employees, greatly reducing the number available to the general public.

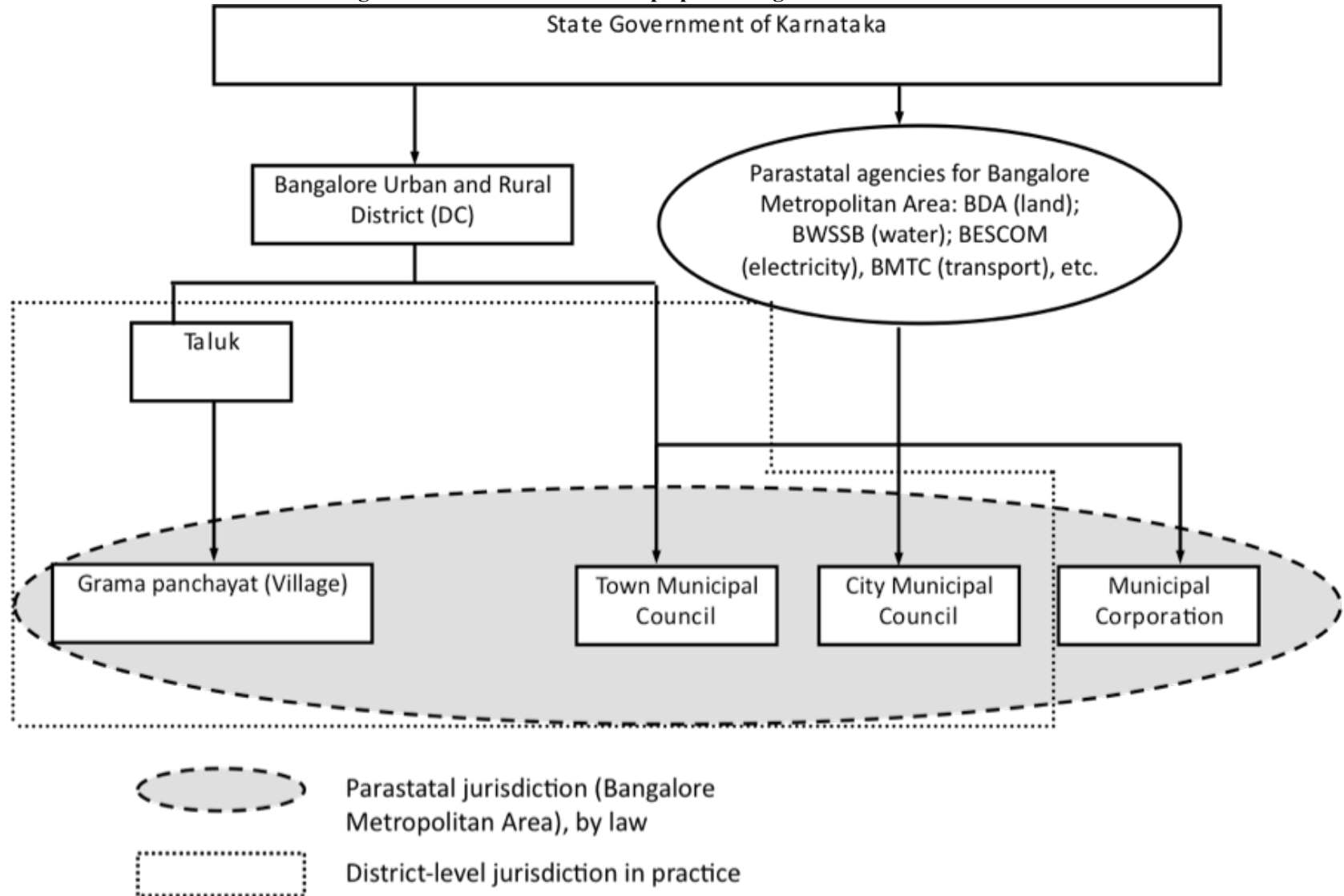
³⁰ Bangalore is divided into two districts for census purposes (Bangalore Urban and Bangalore Rural), which are further divided into 13 *talukas*. The DC of Bangalore Urban dealing with land is known, quite appropriately, as the Special District Commissioner.

³¹ Conversion must occur because non-agriculturalists were, until recently, not allowed to own agricultural land. To circumvent this law, land dealers would often enter into a general power of attorney agreement to sell with farmers. The dealer could then sell the land to a non-farmer while the title was still in the name of the farmer. This is an extremely risky bargain, however, and has resulted in violent incidences at the periphery.

the city or village-level local government). Each form of authority is involved in legitimizing the property claims of specific constituencies. Depending on whose perspective, these forms of property are seen as more or less “(il)legal”. Land tenure thus runs the gamut of what ALF calls “a spectrum of illegality” (ALF 2003: 20).

The stakes of this finding are important for two reasons. First, as discussed in the rich ethnographic work of Benjamin and Bhuvaneshwari (2001), the multiplicity of tenure arrangements at the periphery allow the poor, in particular, to consolidate their claims on land and thus on economically productive livelihood resources (especially for small-scale and home-based activities). This is not least because the upfront cost of an unauthorized revenue layout is far less than a “BDA-approved layout”, which must conform to the BDA’s norms for set-back, road width, open spaces, etc. As Blore (1989: 567) puts it, “public sector provision [by the BDA] of housing or serviced sites is traditionally front-end loaded. They often require sizeable down payments and the payment for services from the moment of occupation. On the other hand, “by deferring services, unauthorized housing is rear-end loaded” (ibid), in the sense that residents can move in *first* and incrementally add services *later*.

Figure 11. Institutional landscape pertaining to land and water



Second, and relatively less theorized in the existing literature on Bangalore, is what the existence of a spectrum of flexible tenure arrangements reveals about the nature of “the state” and its relation to property. Recently, Thomas Sikor and Christian Lund (2009) have put forth the proposition that in post-colonial societies characterized by normative and legal pluralism, property is a key arena through which everyday forms of state formation occurs and is contested. Specifically, they say:

The process of seeking authorization for property claims also works to *authorize the authorizers*, and, at the same time, institutions underpinning various claims of access—hence catering for particular constituencies—undermine rival claims to the same resources (Sikor and Lund 2009: 2, emphasis added).

In other words, claims to property by peri-urban dwellers work as much to secure access to land, as they do to shape the “scope and constitution of authority” (ibid). As was already mentioned, the BDA represents a direct challenge to the authority of the Deputy Commissioner because of overlap in their respective jurisdictions. That is, the Bangalore Metropolitan Area—the BDA’s jurisdiction—covers certain villages and municipalities in and around the green belt area, which, at one time at least, clearly fell under the DC’s jurisdiction. Faced with threats to *its* authority and encouraged by the demand of an aspiring middle class, the DC continues to sanction property outside of its jurisdiction. During the 1970s-80s, as the case of Mr Shama Rao has shown, these actions were largely on behalf of public sector employees. The BDA, meanwhile, unable to sufficiently leverage formal modes of land acquisition and redistribution, was *also* abetting in unauthorized development in the form of cooperative group housing schemes at the rural-urban fringe.

The urban frontier is thus a crucial arena through which various types of authority compete with one another and come to be established. Members of the peripheralized middle class play a significant role in these power struggles. A Gramscian reading of the state is useful here: as Hansen and Stepputat (2001: 3) have pointed out, for Gramsci, “state power emerged from the capacities, the will, and the resources of classes, or segments thereof.” Through his “integral” notion of the state, Gramsci encourages us to think about how power is consolidated in institutions and social groupings that are normally considered to lie outside of the state (Loftus and Lumsden 2008), such as, in Bangalore’s case, group housing societies and resident welfare associations catering to the peripheral middle class. As I have shown here, in the period of public sector-led development following independence, an alliance emerged between a public sector petty bourgeoisie and lower, more localized levels of the state. The complex history undergirding multiple land tenure arrangements at Bangalore’s periphery is crucial in understanding the contemporary politics of the peripheralized middle class, and in turn, their engagement with new water pricing policies. In this chapter’s final section, I turn to the production of the peri-urban frontier in the contemporary moment.

2.4. Liberalization and the Politics of Land, ~1990s Onwards

High-tech fetishism

Mr. Shamana Reddy was born and brought up in an agricultural family in the erstwhile village of Hongasandra; today, a collection of haphazardly developed revenue layouts located in Bommanahalli, off the high-technology corridor of Hosur Road. Like Mr. Shama Rao, Reddy, too, had worked for the public sector enterprise ITI for several decades, and had settled permanently on the urban fringes post-retirement. His life story is also the story of profound political-economic change. As he narrated it:

About 10 years ago, I retired from ITI after working there for 30+ years. Over that time, the staff strength decreased from 18,000 people to around 4,000 people.³² We had to downsize because of the entry of multinationals and a change in government policies. There was no more budgetary support for public sector companies. Today only private companies like Reliance and AirTel can compete—the industry is completely cellular. The main public sector companies like ITI, BEL, HMT have been pushed aside by globalization...This village also changed a lot. Even up to early 1990s, it was agricultural, but by mid-1990s, because of all the new industries, people started to look for jobs and left their fields. Many of the original families sold their land to developers (Interview on May 5, 2007).

Reddy tells a well-known story: that of how economic liberalization starting from the mid-1980s opened a number of electronics fields to private competition, thus threatening the monopoly position of Bangalore's major public sector companies. By the mid-1990s, ITI was in dire financial straits: its annual growth rate had fallen drastically, its already meager export earnings had narrowed further, and it was unable to compete in higher value market segments (Heitzman 2004: 170-2).

As heavy, public sector industries began their steady decline, so, too, was the digital age dawning in India—encouraged, in part, by then prime minister's Rajiv Gandhi's personal interest in liberalizing the microelectronics sector. With its critical mass of engineering talent, Bangalore became a natural destination for the production and marketing of the microcomputer. Early hardware and software company success stories included Azim Premji's Wipro Infotech, which he started through seed funds from a cooking oil business, and NR Narayana Murthy's Infosys Technologies, also launched from personal finances (Heitzman 2004). These and other companies established a comparative advantage in the global economy by off-shoring inexpensive and well-trained Indian engineers for short-term corporate engineering projects, mostly in the US—a strategy known as “body shopping” (Evans 1995; Heitzman 2004). By the start of the new millennium, it was widely estimated that Bangalore had 30% of India's information technology (IT)-related workforce, employed in more than 960 firms (cited in Keivani and Mattingly 2007) and accounted for around 30% of India's software exports. Several government concessions involving KIADB-acquired agricultural land, infrastructure, and tax

³² Note that Reddy's figures are likely to not be exact.

benefits were extended to IT industries and their new technology campuses—the most well known of which is the Infosys campus located off Hosur Road in Electronics City (established by the state government in the late 1970s). Apart from other concessions, the Infosys campus receives dedicated water supply from Stage IV, Phase I of the Cauvery water project at reduced industrial tariffs—a well-known “secret” that became the subject of heated debate and protest in surrounding revenue layouts that were still without piped water (see: The Hindu 2007a).

Much has been written about the emergence of Bangalore as India’s “Silicon Valley”. In particular, the literature has focused on inherent weaknesses in the state’s narrowly focused industrialization policies (e.g. Evans 1995; Heitzman 2004; Parthasarthy 2004; Saxenian 2000); the resulting deepening of socio-economic differences in the city as the state withdrew from social sectors (e.g. Audirac 2003; Benjamin 2000; Rozario nd). The fact that the IT sector accounts for a mere 10% or less of jobs in the city, while other economic circuits such as textiles and auto parts offer a far greater number of livelihood opportunities has led several commentators to come out strongly against the government’s fetishization of the IT industry. These critiques reflect a broader position in the academic literature that liberalization in India has not yet run counter to the varied interests of the country’s most powerful social groups, nor has it run in favor of the country’s poorer majority (Corbridge and Harriss 2000).

Rather than rehearsing these arguments here, my interest in this chapter is the concomitant shifts in urban land policy accompanying liberalization and the IT boom, and the emergence of a politics of regularization; in Kannada, the politics of *akrama-sakrama* [“illegal-legal”]. The politics of regularization, I will argue, selectively confers the status of “legal” vs. “illegal” on different forms of property in peri-urban Bangalore. In so doing, it deploys new discourses and instruments for *re-regulating* land—practices that have in turn become importantly rallying points for the peripheralized middle class.

Liberalizing and re-regulating land: Akrama or sakrama?

Although the socialized land policies of the Urs government in the 1970s produced fewer redistributive outcomes than they were purported to have, they still held some checks and balances on reckless conversions of agricultural land. Moreover, the demographics of the time meant that settlement irregularities were largely confined to a burgeoning public sector workforce, abetted no less by its kin in the “porous bureaucracy” (Benjamin 2004). From the 1990s onwards, however, whatever *semblance* there was to a developmental state gave way to a much more aggressive and overtly accumulationist state. Irregularities in large-scale land deals and development were sponsored not only by officials at the district and local levels, but by successive chief ministers of the state interested in propping up the technology industry, much to the ire of village *panchayat* leaders (see for instance Jamwal 2006; Srinivasaraju 2005).

Several major changes in land policy ensuring easier access to farmland were also made in the 1990s. Amongst the most important of these was an amendment to Section 109 of the Land Reforms Act (1961) in 1995 under then chief minister HD Deve Gowda. A farmer’s son self-proclaimed as a *mannina maga* (“son of the soil”), Deve Gowda made it possible for the first time, quite ironically, for non-agriculturalists to acquire agricultural land. The act the legislature passed under his government rationalized:

In the new environment of economic liberalization sweeping the country, it is felt necessary to enable the industries based on aquaculture, floriculture, horticulture, *and also the housing industry which hold high potential for drawing outside investment in the state*, to obtain lands required for their establishment and expansion easily (GoK 1995: 29, emphasis added)

The amendment allowed certain exemptions for agro-industrial enterprises and housing projects with respect to the acquisition and holding of agricultural land. Shortly after the promulgation of the amendment, Janaki Nair (1996), dubbed the move a “legalized land grab” by the Gowda administration. In her assessment:

What the government of Karnataka has introduced by way of land reform amendments amounts to an invitation to predatory capitalism. For the principal beneficiaries of this new legislation are the speculators in land, both urban and rural, housing companies, the leisure and luxury housing industry, the education industry and emerging gentlemen farmers (Nair 1996: 252).

Nair’s (1996) assessment could not have been more accurate. In the late 1990s, a committee appointed to investigate Bangalore’s so-called green belt found that “most of the land was barren and well on the way to becoming developed real estate” (Nair 2005: 160). Gated apartment complexes, independent “townships”, luxury resorts, and even religious mega-complexes had all proliferated in fringe areas. More recently, lucrative areas around the new international airport in Devanahalli have witnessed a spate of real estate activity, widely advertised on billboard hoardings throughout the city (Figure 12).

Figure 12. Billboard advertising real estate beyond the Bangalore International Airport



Figure 13. Brochure advertising “life at its best” at Aishvaryaa Diamond



While some housing complexes cater to the elite—for instance, US-returned technology professionals and other non-resident Indians—there was also a spike in apartment projects targeting a range of middle class segments. In the latter category, several were not approved by the BDA. Some were further suspected of duping potential customers by first luring them via false promises and glossy ads featuring luxurious, westernized lifestyles (see Figure 13), and only later—after down payments had been secured—revealing their illegal status. This risky building activity led to a flurry of Internet blogs and discussion forums warning potential real estate buyers to watch out for scams in peri-urban Bangalore—one of which cautions against the fraudulence of “Aishvaryaa”, the developer featured above.³³

Stories about clandestine land dealings have become even more hairy in recent past as real estate prices in and around Bangalore have skyrocketed. Scott Carney, an investigative journalist for *Wired Magazine*, for instance, studied the Bangalore land mafia for three years. In his 2008 article, he narrates the life stories of multiple land mafia “dons” that currently oversee—or were formerly involved in—land rackets involving extortion and murder. “Rowdies”, as they are often referred to, are frequently deployed to usurp vacant farmland after painting over ownership signs and beating up squatters and security guards (Figure 14). By far the most interesting part of Carney’s article is his description of how multinational companies buy land, often via current and former mafia leaders and rowdies. He quotes one such broker, Muthappa Rai, a self-proclaimed former don who claims that his land deals are now “perfectly straightforward” as saying: “Foreign companies come in and everything improves...I have seen this happen the whole world over. Now I’m helping make it happen here” (quoted in Carney 2008). Yet Rai’s procedure for acquiring land is tenuously legal:

Asked to intercede by a prospective buyer, Rai checks out the parcel for competing owners. If two parties assert ownership, he hears both sides plead their case and decides which has the more legitimate claim (what he calls “80 percent legal”). He offers that person 50 percent of the land’s current value in cash. To the other, he offers 25 percent to abandon their claim—still a fortune to most Indians, given the inflated price of Bangalorean real estate. Then he sells the land to his client for the market price and pockets the remaining 25 percent (ibid).

Carney further confirms that “A US firm looking to rent or buy might also go through Rai, but not directly. A facilities administrator in Bangalore—probably Indian—would work with a developer who, in turn, would contact Rai to secure a plot”. Brokers like Rai, as cunning as they may seem, are only foot soldiers in a much more globalized and exploitative system of frontier expansion. As Tsing (2005: 32) would contend, Bangalore’s fringe is a frontier landscape *par excellence*. It is “a space of desire: it calls; it appears to create its own demands; once glimpsed, one cannot but explore and exploit it”. It is important, however, to differentiate between the illegalities of revenue layout dwellers—those attempting to surmount the barriers to affordable housing in an increasingly exclusionary city—and the more insidious and large scale-illegalities of multinational corporations and the housing industry. The terminology “land mafia” in effect glosses over these differences and relegates all peri-urban dwellers and land-dealing bureaucrats

³³ See: <http://www.consumercomplaints.in/complaints/aishvaryaa-prestige-c205382.html>

as corrupt, their transactions “non-transparent”. This is a dangerous popular simplification that feeds into land policy reform and the politics of regularization.

Figure 14. Lokesh, a “rowdy that settles land deals with force”



Source and photo credit: Scott Carney (2008).

To counter the market in unauthorized real estate—or more cynically put, to profit further from what was unleashed by liberalization—the state government periodically issues policies to “regularize” unauthorized constructions upon payments of fees. The first attempt was in 1991, when it passed the Karnataka Regularization of Unauthorized Constructions in Urban Areas Act with the justification:

The unauthorized constructions which already have come up over the years cannot possibly be demolished and any wholesale demolition would not only amount to wastage of national wealth but may in some cases also create law and order problems. Keeping in view the above points, it is felt necessary to have a comprehensive legislation *for regularization of certain types of un-authorized constructions* (GoK 1992, emphasis added).

Note that the act also stipulates that water and electricity supply would be disconnected unless the unauthorized construction was regularized. I emphasize the last line above because it gets precisely at the heart of the politics of regularization: What *are* “certain types of unauthorized constructions”? Which constructions are eligible for regularization and which are not? How are these decisions made? And, perhaps most importantly for those affected, what were the stakes of staying unauthorized or becoming regularized?

These questions came to a head in 2007 when regularization took on its most ambitious guise yet in the form of a legislation called *Akrama-Sakrama*, in Kannada, “illegal-legal”.³⁴ While the 1991 act came down hard on high-rise and commercial buildings and was relatively more lenient on residential layouts, the reverse was true in 2007. At this time, revenue layouts faced enormous regularization fees. Sites measuring 1,200 sq. ft were slapped with fees of Rs. 142,000, while those measuring 2,400 sq. ft had to pay upwards of Rs. 400,000 (Deccan Herald

³⁴ Note that the term *akrama-sakrama* has been also used in the context of other governmental schemes in Karnataka, and simply refers to the process of legalizing or regularizing what is unauthorized—e.g. electricity connections, water connections, land, etc.

2009a)—a significant and, in most cases, infeasible burden when compared to the median annual income estimated for households in these categories as per my research. The media routinely announced that the scheme was designed so that the city corporation could raise over Rs. 10 billion in revenue “to take up development projects while also providing relief for people who were waiting for regularization of their properties” (The Hindu 2010).

Shortly after *Akrama-Sakrama* was announced, protests erupted across the urban periphery and several citywide public meetings challenging the scheme were held. It was virtually impossible to get through a single interview without discussion of the scheme and its perceived evils. Among other arguments, citizens vociferously contended: “the *Sakrama* legislation penalized citizens (taxpayers) alone for what was the fault of both citizens and government officials in the mushrooming of illegal layouts and structures” (Vincent and Aradhya 2008). This is an important and undeniable contradiction in light of the role of state, district, and local-level government in abetting unauthorized development from the 1970s onwards as the above has shown. Finally, following public outcry and litigation against the state government, the latter withdrew the scheme on the orders of the High Court. Over a year later—ahead of city elections—it announced a revised “cheaper” scheme, with fees 60% lower than the original scheme (Deccan Herald 2009b)³⁵.

I will discuss how the politics of regularization articulate with neoliberal water reforms in Chapter 6. Here, it is important to note how revenue layout dwellers have become targeted in the current moment as the political-economic prerogatives of the state and the city’s division of labor have been reconstituted over time. As public sector-led development has given way to private sector-led development, land has been both liberalized in order to meet the demands of corporate, globalized constituencies as well as *re-regulated*. That is, as the peripheries have been urbanized and subsumed within the Bangalore city corporation, prior forms of authority (e.g. the local municipal governments and village *panchayats*) are no longer considered legitimate. Residential settlements once sanctioned by the DC, the local municipal or village government, or even condoned by the BDA are today deemed “unauthorized”. Indeed, the categorization and re-categorization of populations are practices that are as central to the art of government today as they were during colonial projects of rule. What is *new*, however, is that the production of difference today turns less on racial difference as it does on a new division of labor. While projects of “improvement” targeted the “filthy” *pettah* and its “natives” at the turn of the 20th century (in the words of the colonial engineer JH Stephens), in the early 21st century, projects of “regularization” disproportionately penalize revenue layouts—“the small violators” comprising a variegated informalized and now peripheralized middle class. At the same time, the politics of regularization condone the larger, more profitable commercial and residential violators (e.g. the corporations that use Muthappa Rai to acquire land, the leisure industry, and the high-end housing industry) (see, for instance, the analysis by The Hindu 2007b). As one member of the Citizens Action Forum, a citywide platform for resident welfare associations, put it:

³⁵ According to the revision domestic properties with violations below 25 per cent will have to pay a penalty at the rate of 6 per cent of the guidance value of the property (which, in turn, depends on which zone of the city it is located in). For properties with above 25 per cent violations, the penalty goes up to 8 per cent of the total guidance value.

Sakrama seeks to regularize high-rise buildings, but penalizes severely the so-called “revenue-site” layouts...The noble motive of providing housing for people seems to have become strangely subservient to the need to cater to the needs of big business that have violated building laws by constructing and occupying immense structures in residential areas (CAF nd).

The production and management of difference at the frontier via arbitrary norms for determining what is “legal” vs. “illegal”, emphasizing revenue layout dwellers as the prime culprits, and significant penalties on site owners is thus fundamental to the politics of regularization. In essence, the politics of regularization ensures that *not all illegalities are bad*: illegalities securing the position of the city as a destination for the globalizing elite are, in fact, desirable and actively pursued. The above lens into the politics of land at Bangalore’s frontier aids in an understanding of why members of the peripheralized middle class are attempting to stake their claim to property in this increasingly globalizing and exclusionary Indian city.

Water markets and mafias

Before concluding this chapter, I return to the story of Santosh, a lower middle class resident who runs a profitable private water tanker business in Byatarayanapura. Santosh spoke of mafias in both land and water—phenomena that shape his everyday experience of Bangalore’s frontier. Land mafias, as I discussed, are collusions involving brokers, “rowdies”, developers, and politicians that wield significant influence on land dealings by deploying local muscle power. They are often propped up by global actors and processes linked to India’s economic liberalization. But what is a water mafia? Does it have anything to do with a land mafia? And, as I asked at the beginning of this chapter, (how) is Santosh implicated?

Water markets tapping into Bangalore’s aquifer are ubiquitous in peri-urban Bangalore, but not all of them can be construed as “mafias”. Very few academic studies are available on groundwater extraction, and none that I know of delve into the political-economic aspects of the groundwater business. Information on where businesses source their groundwater from, how much they earn per day, and how many customers they service is highly proprietary and notoriously hard to come by largely because the market is so unregulated. A geologist from the Bangalore University, TS Suresh (2001), suggests that in recent years, there has been a surge in the conversion of agricultural wells on the outskirts of Bangalore into suppliers for urban water markets largely because: (1) agriculture is now less profitable than selling water and (2) rural landowners can profit from subsidized electricity needed to pump groundwater up. It is also highly plausible that the liberalization of land enabling easier access to agricultural land has allowed greater access to the water beneath it. The surfeit of cheap farming tractors that haul groundwater in tankers from surrounding farmland to peripheral and core city neighborhoods alike—and can no doubt navigate the cratered roads of unauthorized layouts—also greatly lower the start-up costs for groundwater businesses (Figure 15). Advances in pumping technology, moreover, have enabled borewell depths of 1,500 ft (Vishwanath 2009).

Figure 15. Tractor-pulled water tanker in Bommanahalli



It is estimated that there at least 100,000 borewells in Bangalore³⁶—if not four times that amount (ibid)—which collectively mine between 550-572 MLD of water per day (500 MLD for private domestic and industrial use; 33 MLD by government agencies for domestic use; and 17-39 MLD by private players in the water market), which is approximately equal to surface water supplies by the BWSSB if its losses are accounted for (Suresh 2001). Tanker businesses in Bangalore work round the clock, making over 16 trips per day and 30 trips per night in the dry season and fewer during the monsoons (ibid). These businesses cater to the vast majority of the urban periphery without access to BWSSB’s piped water or private borewells—and as I will show in Chapter 3, tanker water service is often determined through intense negotiations between contractors, residents, and the local government. Tanker businesses charge between Rs. 250-300 per tanker load, which translates to roughly Rs. 50-70/kL (Ranganathan et al. 2009) (see Appendix B for a comparison with BWSSB’s domestic rates). With an ever-growing consumer base, groundwater is undoubtedly one of the most profitable and competitive businesses in Bangalore.

It is no wonder, then, that several water businesses are owned and operated through collusions between politicians, brokers, and landowners—much like the “land mafia.” The term “water mafia” has become a part of common parlance in discussions around peri-urban water access. A few months after our interview with Santosh, the *Bangalore Mirror*, a local tabloid, ran an article on the “water mafia” of Byatarayanapura, reporting:

Unlike in many parts of Bangalore, the residents of Byatarayanapura get uninterrupted water supply. Yet, for the past 13 years they have not paid their water bills. No, it’s not because they are enjoying a freebie. Instead they dole out a constantly varying monthly amount to a shadowy mafia, widely believed to enjoy political patronage (Soni 2008).

³⁶ This number excludes around 6,000 handpumps maintained by the government, most of which are defunct.

The article also printed a cartoonist's depiction of what the "water mafia" might look like: with sunglasses and a gleaming white *kurta-pyjama* [Indian shirt-pant outfit], the over-sized antagonist is a caricature of the stereotypical politician-cum-rowdy (Figure 16). But this story gets more interesting: although Santosh claimed that his groundwater business was just that—a *business*—to others we interviewed, including his own water technicians, Santosh was as much a part of the "mafia" as the shady political figure depicted in this article. Yet to others, such political figures are actually "social activists"—do-gooders that help people in Byatarayanapura overcome their plight of apathetical municipal service providers. Like other peripheral middle class residents, Santosh possesses multiple and conflicting identities and positionalities. Where "the truth" lies does not matter: this is a frontier landscape, a zone of awkward engagement in which myth and reality, illegality and legality, social activists and mafias are utterly mixed up. As self-fulfilling prophecies, the fantastical stories themselves beget reality. As Hansen and Verkaaik (2009: 6) have recently put it, "the associated myths of the city and its places are always potentially imbricated in the most mundane activities"—in securing drinking water, for instance, or a piece of land on which to live.

Figure 16. Cartoonist's depiction of the "water mafia" in Byatarayanapura



Source: Soni (2008)

I end this chapter simply by pointing out the opacity of the frontier geography, particularly around the dynamics of land and water. It is not merely this opacity, however, this layered and complex urban history that provide fascinating topics for study. Rather, it is also the ways in which the frontier is rendered legible and calculable by proponents of governance "reform" and the unanticipated effects therein that must be carefully scrutinized. This is the subject to which I turn next.

2.5. Conclusion

In 1897, Lewis Rice decried the streets of the *pettah* as narrow and filthy—an inevitable product of the natives that inhabited them. Over 100 years later, one newspaper echoed Rice’s prose in an article on a peripheral layout of Byatarayanapura:

Bhadrappa Layout is a mess. Streets are narrow and houses are built right next to open drains. It is a potential health hazard with kids playing near the drains. Apart from the flooding, drinking water is a problem (ToI 2008).

How is it that over the span of a century, the *pettah*—the heart of the old fort-town of Bengaluru—came to be discursively and materially reproduced at the urban periphery, albeit with different underlying logics?

In this chapter, I narrated the history of the city’s present through the prism of water, space, and social power. I focused on both the formal projects of infrastructure and planning—the multiple and increasingly ambitious Arkavathy and Cauvery River waterworks projects and the grid-aligned layouts they catered to—as well as the spontaneous and informal processes of water supply and spatial development that unfolded simultaneously. My overarching argument is that these two processes are conjoined. Rather than existing outside of the state, the management of informal processes pertaining to land and water has been core to state formation.

I trace three main periods. In the first half of the 20th century, I showed how colonial biopolitics combined with laissez-faire economics to displace a significant proportion of working class residents. Instead of benefiting from the sanitary “planned” suburbs that the colonial state created on the outskirts of Bangalore to ostensibly re-house them, these displaced residents came to resettle in marginalized, underserviced areas to the west of the city, in and around the *pettah*. Second, in the latter half of the 20th century, I discussed how various arms of the post-colonial state abetted a public sector bourgeoisie—a major constituency then—in the formation of unauthorized “revenue layouts” in villages surrounding government factories. Finally, in the post-liberalization era, a new politics of regularization is selectively conferring the status of “legal” vs. “illegal” on peri-urban residents according to a revised global division of labor. “Big” violators—the technology parks, resorts, and elite housing projects—are condoned within this framework while “small” violators, particularly middle class revenue layouts, are disproportionately penalized. In many senses, this is a terrain that typifies the “impossibility” of governing Indian cities (Roy 2009)—the notion that planning is at once enabled by, while also held hostage by, a particular logic of informality and its internal differentiation. How, then, do the governmental technologies associated with neoliberal reforms articulate in and through this uneven, ungovernable, and impossible frontier landscape?

CHAPTER 3

“Re-engineering” Municipal Governance? Complaining and the Politics of Accountability

3.1. Introduction: Unpacking the Rationalities of Reforms

Early into the new millennium, the imaginary of Bangalore as India’s Silicon Valley had given way to discourses bemoaning the imminent “collapse” of the city (Halarnkar 2004a). Major corporations had begun to threaten that competitor cities like Hyderabad and Pune provided better conditions for future investment than Bangalore. The city’s “crumbling” infrastructure—especially at its unruly outskirts—was seen as a particularly disdainful blotch on its “world class” aspirations (ibid). Further eroding business morale, by late 2004 the Bangalore Agenda Task Force (BATF), a public-private partnership created by pro-industry Chief Minister SM Krishna to “re-engineer” the city’s governance with the expertise of its technology leaders, had been sidelined by a successor pro-rural coalition government. But even as the media captured the spats between Bangalore’s leading technology executives (and ex-BATF members) and Karnataka’s newly appointed political leaders (see especially Halarnkar 2004a; Halarnkar 2004b; The Hindu 2006b), it failed to take note of the deeper, systemic changes that the BATF had, in fact, set in motion.

Between 2003-2005 the Government of Karnataka launched various components of Nirmala Nagara Yojane (“clean city program”), a municipal reforms program covering more than 50 municipalities throughout the state, including the eight comprising Greater Bangalore. The program, funded by the Asian Development Bank and implemented by the Government of Karnataka’s Department of Municipal Administration (DMA), bore a strong resemblance to the BATF in terms of its language, rationalities, and reform strategies (Ghosh 2005). It also echoed and, in turn, shaped state and national urban reform programs. Major techno-fixes instituted via Nirmala Nagara included a shift to corporate-style accounting, property tax reform, and the computerization of public grievances. Its most publicized dimension was the application of information and communication technologies for reformatting government services—what is now commonly referred to as “e-governance”. As part of a suite of e-governance modules, performance indicators and benchmarks were designed to rank participating municipalities and their staff. Today, Nirmala Nagara is being scaled up in more than 200 cities across the state via the World Bank’s \$310 million Karnataka Municipal Reforms Project loan channeled through the Karnataka Urban Infrastructure Development Finance Corporation (KUIDFC), an entity we will see at close quarters in the following chapter. Owing to Karnataka’s exemplar “scorecard” system of ranking cities and their services first developed under Nirmala Nagara, now cities across India are being encouraged to follow suite and adopt similar benchmarking practices (ToI 2010). How was a pilot program like Nirmala Nagara catalogued as a “success” and used to justify the scale-up of governance reforms both statewide and nationally? What can programs like Nirmala Nagara tell us about how the particular problematic of urban governance is “enframed” to use a term from Timothy Mitchell (1991)—how it is rendered intelligible and calculable in order to be subjected to particular forms of governmental power?

In this chapter, I use the case of Nirmala Nagara to investigate the governmental technologies instituted in the name of municipal “reform” and their underlying rationalities. This is a critical case through which to probe how notions of “good governance”—particularly the rhetorical focus on enhancing accountability—is translated into practice and to what ends. Importantly, the types of shifts I chronicle here have often gone hand in hand with financing and pricing reforms in the urban water sector, discussed in the following chapters. While cost recovery is one critical aspect of the urban water reforms agenda, equally widespread are efforts to transform public agencies into responsive “customer-friendly” entities, and conversely, citizens into informed, demanding clients. To look at cost recovery efforts in isolation from ongoing institutional reforms in urban local bodies (ULBs) upon which they are predicated would be to miss the overall goals, dynamics, and interconnections between elements of reform and their respective brokers. This case illustrates how interventions in municipal governance are clustered together and carried forward from program to program—often without compelling evidence of their efficacy in bringing about more equitable and robust service delivery. In studying Nirmala Nagara, we capture the characteristic “inventiveness” of particular technological projects—how they are drawn together and reformulated in contingent ways, and often entail “post facto rationalizations” (Larner and Butler 2007: 73).

Programs such as Nirmala Nagara reflect the deepening neoliberalization of urban governance, or the embrace of market principles and, more fundamentally, the transformation of state-making and rule. Following Foucaultian scholars, programs of neoliberal reform are associated with *micro* practices—that is, benchmarking, audits, and other market-based “governmentalities” of the New Public Management³⁷ that intend to shape the conduct of conduct. In these terms, neoliberalism “involves less a retreat from governmental ‘intervention’ than a re-inscription of the techniques and forms of expertise required for the exercise of government” (Barry et al. 1996: 14).

Much has been said in the critical academic literature about how neoliberal micro-governing practices cultivate what Matthew Sparke (2006: 154) has aptly summarized as a new kind of “self-policing, entrepreneurial individualism” (see for instance Hindess 1997; Mitchell 2006; Ong 2006; Rose 1999). This literature broadly argues that neoliberal governmental technologies are re-coding social citizenship³⁸ along economic and contractual lines. As Rose (1999: 165) puts it: “in this new field, the citizen is to become a consumer, and his or her activity is to be understood in terms of the activation of the rights of the consumer in the marketplace”.

³⁷ The “New Public Management” is a philosophy that took root in New Zealand in the late 1980s and spread globally thereafter. It insists on the professionalization of bureaucracy and the empowerment of citizen as customer. Reforms following this philosophy include private sector-style initiatives purporting to improve accountability through the payment of user fees, citizen charters delineating service quality standards, and institutionalized technologies and spaces for customer grievances, audits, and managed civic participation.

³⁸ Note that much of this scholarship draws implicitly or explicitly on TH Marshall’s (1950, 1983) classic formulation of modern citizenship based on a three-step evolution from *civil citizenship* providing the basic conditions for capitalist development such as the right to sell one’s labor; to *political citizenship* associated with the development of the public sphere, voting, and other political rights; to *social citizenship* ensuring entitlements to social justice, such as unemployment and health insurance.

With few exceptions, however, less has been said in the literature about how governing technologies instituted by myriad state and non-state actors aim to reform *bureaucracies themselves*, especially at lower levels. That is, there is little research on how reforms attempt to reconstitute power relations *between* scales of government. This is an important lacuna because unless we consider the power dynamics engendered *within* the state, we risk insufficient attention to “actually existing” neoliberalism (cf Brenner and Theodore 2002). As some have rightly pointed out, despite the rich theoretical work on neoliberal governmentality, few studies delve into the “messy actualities” of programs and projects (Barry et al. 1993; Larner 2003; cited in O'Malley et al. 1997: 504). By interrogating the operation of neoliberal governmentality on the state itself and the production of various state subjectivities, we thereby gain insight into the implications for citizen-state relations and questions of urban citizenship.

In what follows, I train a lens on inter-governmental relations reshaped through Nirmala Nagara and the “messy actualities” of the project as studied in Bangalore’s frontier zones. I focus on “e-grievance redressal”, one component of Nirmala Nagara that specifically targets the *accountability* of local staff in participating ULBs by digitizing and systematizing citizen grievances directed at municipal services.³⁹ The system in question pre-selects the type of complaints that citizens can file (e.g. “water supply not come”) and the means through which they must be filed (Internet, phone, or paper forms processed by a help desk). It also establishes norms for responding to those complaints that ULB engineers must adhere to, or potentially face disciplinary sanctions by senior administrators. According to official evaluations, the e-grievance system allows citizens to air their complaints “in a structured and efficient manner” (CMAK 2009: 5). Furthermore, the benefits of the system are that it enables the detection of “what types of problems occur at which parts of the city at what time of the year” (CMAK 2009: 5) via live reports, graphs, and maps generated through city websites. Such rich reporting capabilities “streamline municipal functions through process reengineering” (ibid: 8). As a result, it has “introduced transparency and accountability of the municipal staffs” (GoK nd: 3). Indeed, the appeal and extension of the e-grievance system throughout Karnataka is predicated upon its amenability to “governing at a distance” (Miller and Rose 2008 [1991]: 41)—that is, its potential to instill calculative logics in lower-level bureaucrats in consonance with a broader agenda for governance reform.

Based on detailed fieldwork in the municipalities of Greater Bangalore, I show these claims to be partial and tenuous. As I described in the previous chapter, the fringes of Bangalore are characterized by scores of unauthorized and poorly serviced settlements largely catering to a variegated working and middle class. Securing drinking water in this environment, for instance, entails collective struggles and a series of negotiations between groups of residents, elected representatives, contractors, and engineers. Rather than via a prescribed route involving an individual client, for instance, complaining—as one means of negotiating greater access—occurs through multiple channels, including through group-oriented confrontation with state functionaries and councilors. I show that the element of spectacle entailed in collective, face-to-face interactions between citizens and the state is fundamental in establishing the local state’s

³⁹The official term used in project documentation is “public grievance and redressal module” or PGRM. Elsewhere in India the term “online complaint management system” or OCMS has also been used to describe a similar set-up. Here, I shorten to “e-grievance redressal” to highlight it as an e-governance effort and to avoid acronyms.

legitimacy and, in turn, the legitimacy of groups facilitating these interactions. By promoting the impersonal interface of the e-grievance redressal system, on the other hand, reform proponents underestimate the value of the *performative* aspect of state-making in bringing about local responsiveness and accountability. This is especially the case for lower middle class residents that hail from the same socio-economic and linguistic background as the bureaucrats to whom they make their appeals, a phenomenon that has been referred to as the “porous” bureaucracy (Benjamin 2004) and its “feet of vernacular clay” (Kaviraj 1984).

The stakes are that while the e-grievance system captures only a portion of complaints, it provides the *semblance* of efficiency and rigor. For Mitchell (1991), this is precisely the work of enframing: by forging a distinction between the “real world” and an “objective” representation that seeks to capture it, enframing practices such as e-grievance reports acquire an extraordinary air of certainty. I argue that the statistical capturing of the nature, frequency, and geographical distribution of grievances—as partial as it may be—does not serve to improve the accountability of municipal providers vis-à-vis citizens, so much as it is used by higher echelons of the state apparatus to monitor and surveil local governments. In other words, there is far greater *upward* accountability that is induced by the system than *downward*. This is a troubling reversal of urban decentralization goals, and, as I show in subsequent chapters, is also a recurring theme in internationally supported water and municipal reforms agendas more generally.

I proceed in Section 3.2 by describing the mentalities underlying Nirmala Nagara, as well as the specific mechanics of the e-grievance interface. I elucidate here how the enframing of grievances works by capturing a sub-set of complaints and constituting specific fields in need of intervention. By extending the analysis in Chapter 2 on the history of differentiated tenure regimes at the frontier, I then contrast this statistical picturing with my own fieldwork in Section 3.3 on the differentiated service-related concerns in peri-urban Bangalore. In Section 3.4, I problematize contemporary notions of accountability as defined by contractualized relations between citizens, the state, and service providers, and show instead how accountability is often a messy terrain of struggle fought out through quotidian first-hand and often collective encounters with the everyday state. The stakes of how we apprehend accountability are critical given the widespread sanction and scale-up of e-grievance redressal and city benchmarking occurring throughout India, a topic to which I turn in the final section.

3.2. Enframing Grievances

How to retrofit a city

Initially, there was nothing available. There were no records, no maps, no databases, only backward accounting procedures, no property tax collection, no system of attending to complaints... There was only garbage! Municipalities are just garbage; they have to deal with so much garbage and they *are* also just garbage! (Interview with senior IAS office on June 13, 2007)

I was sitting in the office of a senior official of the Indian Administrative Services⁴⁰ (IAS) formerly appointed to the Municipal Reforms Cell of the DMA, one that had played a key role in the design and implementation of Nirmala Nagara. My question about what the package of reforms entailed, what they were trying to achieve, and how they had come about elicited the above bluntly delivered response. He continued: “You see: there is no discipline in any of the CMCs [city municipal councils]. And in Greater Bangalore, the situation is very bad. Through Nirmala Nagara, we brought in some discipline. But we had to start from *scratch*”. The officer’s response reflects a widely held perception across the upper echelons of Karnataka’s urban development bureaucracy and its extra-governmental partners that urban governance in the state is virtually defunct. Administrators hold smaller municipalities, in particular, to be weak, their management and accounting practices “backward”, and quite simply, mere “garbage”. In the quote above, the officer is alluding to both the physical presence of trash lining the streets and clogging the drains, as well as the perceived ineptness of municipal administration.

The reasons for poor delivery of basic services are complex and connected to a broader history of colonial and post-colonial planning and settlement, as well as political-economic shifts involving diminished fiscal devolutions from the center and from states since the 1990s as I will discuss in Chapter 4. In peri-urban frontier regions like Bangalore’s consisting of multiple smaller municipalities and villages, the prevalence of settlements not recognized by the city’s parastatal planning authorities has meant that utilities, in turn, have been unwilling to extend service to these areas. The combination of a high dependence on private contractors and patronage relations that tend to exist between contractors and government representatives also means that private gain is often achieved at the expense of public benefits. This is not to say that there are not cases of robust public service delivery in peri-urban Bangalore. The village of Bellandur, for instance, now incorporated into Greater Bangalore’s jurisdiction, is widely recognized as a model local government that maintains its own reliable water network, sewerage systems, and roads owing in large part to its politically active and progressive *panchayat* (Kamath et al. 2008). However, the generic manner in which senior state administrators gloss municipal problems in Greater Bangalore focusing almost exclusively on what is seen as the technical and managerial deficiencies inherent to its “uneducated” masses and local government employees silences such examples.

From the position of senior administrators, then, reform “solutions” must start from a blank slate, or in the words of a senior bureaucrat: “To reform a city, you have to retrofit it”. In the current moment, the language and approach of retrofit center on the idea of “process reengineering” for which a *tabula rasa* is needed. As a private sector technique first coined in the Harvard Business Review in 1993 and subsequently seized upon in computer science and management circles, business process reengineering aims to improve the effectiveness of organizations by encouraging them to fundamentally rethink their organizational processes; a “clean state” is therefore encouraged as a natural starting point. Transposed to the context of urban governance, reengineering implies that before an unruly frontier can be rendered calculable and intelligible, its existing political processes must be effaced and interventions must thereby begin anew—preferably by minimizing the potential for political intervention and discretion at the local level. Technology is considered the prime enabler of municipal

⁴⁰ An IAS officer is a member of the Indian Administrative Services, a career bureaucrat. IAS appointments to various line departments are typically made by the chief minister of the state.

reengineering as a result of which supposedly redundant and “non-value added” tasks can be done away with and customer needs efficiently and rationally addressed—if not by the private sector itself then at least by a government that *acts* like the private sector. By relying on mechanisms that mimic markets to discipline public administrations, the focus on government reengineering or retrofitting, as Evans would put it (2005: 31), tends to “overweight” market signals to compensate for the perceived failures of traditional bureaucracies.

Nirmala Nagara is one effort in this direction. Although the program involved a range of scattered, small-scale investments in infrastructure (e.g. public latrines, rainwater harvesting, solid waste management), the main thrust was to develop and implement municipal e-governance systems in partnership with the e-Governments Foundation. The e-Governments Foundation is a corporate philanthropic “public interest” trust based in Bangalore founded by technology entrepreneurs of global stature—one of whom, Nandan Nilekani, is co-founder of Infosys, India’s premier “flat world” company as its executive like to call it⁴¹, and also a core member of the erstwhile BATF. The e-Governments Foundation’s mission is “to improve governance in India through the effective use of technologies and government process reengineering”. Echoing this language, the rationale behind Nirmala Nagara maintains that because “record keeping functions are poorly carried out and are a manual drudgery”⁴², local governments are in need of “process reengineering” (CMAK 2006: 3), and further, that “greater accountability and citizens participation”, until now severely wanting, must be made “the pivot” of urban governance.⁴³

Several functions of city governments in Karnataka were computerized to this end under Nirmala Nagara: property tax collection, financial accounting based on a shift to a double-entry format used by the private sector, the municipal employees payroll, inventories for tracking contractors, public works and assets, birth and death registration, and public grievances encompassing a wide variety of complaints from municipal services to day-to-day administration.

I chose to focus on the workings of the e-grievance redressal system for two reasons. First, computerized complaint management is widely acclaimed as a preeminent accountability-enhancing mechanism not only at the state level (CMAK 2006; CMAK 2009) but also in international forums (World Bank 2004b).⁴⁴ Since my primary interest in the dissertation is in understanding how neoliberalized notions of accountability, transparency, and participation get operationalized and interpellated through reforms—whether through institutionalized complaint interfaces or payment policies—and further, how they articulate and take root locally, e-grievance redressal provided a useful lens through which to do this. Second, since complaining is such a mundane, ubiquitous activity, institutionalized grievance redressal provides a valuable

⁴¹ The term derives from Thomas Friedman (2005). See <http://www.infosys.com/flat-world/business/why-think-flat/Pages/index.aspx>

⁴² The description of Nirmala Nagara is posted on the website of the Department of Municipal Administration, Government of Karnataka: <http://municipaladmn.kar.nic.in/NNe.htm> accessed June 8, 2009.

⁴³ See footnote above.

⁴⁴ See Ranganathan (2008) for a review of how and why grievance redress is now increasingly being lauded in international policy discussions.

entry point not only into how technologies of administrative control are structured, but also the nature of political agency of the peripheralized middle class and their everyday interactions with the state. I thus began by exploring the basics: how e-grievance redressal works, what it enframes, and what it excludes.

The mentalities and mechanics of the e-grievance interface

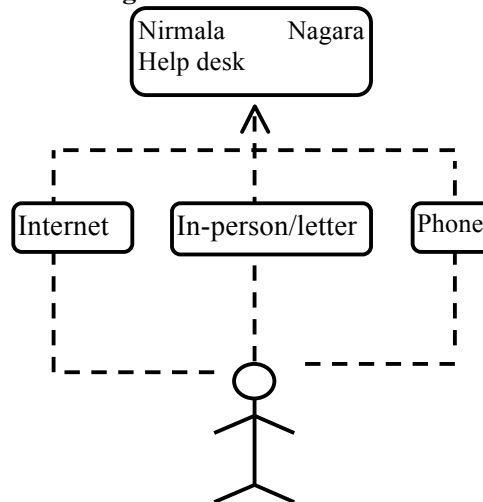
The headquarters of Bommanahalli, lying 20 km to the south of Bangalore, are housed within a dusty and bustling two-story government office building on Begur Road, just off the Hosur highway connecting Bangalore with its tech parks. Formerly a city municipal council with a population of approximately 300,000, today, Bommanahalli is one of several zones that constitute the Bruhath Bengaluru Mahanagara Palike, or the Greater Bangalore City Corporation. Visits to the zonal headquarters became a routine part of my fieldwork in 2007. Although this was a period of great transition and confusion—city officials were being reshuffled, budgets reallocated, and jurisdictions rescaled to account for the expansion—I quickly realized that by observing municipal bureaucracies at work, there was much to be learned about three things in particular. First, given my focus on water, I wanted to understand whose job it is to provide water currently—not in vague terms, but more specifically, I wanted to trace the “last mile” in the delivery chain. Second, after spending an initial three months in Bangalore interviewing state-level and private sector proponents of reforms, attending workshops on water privatization, and perusing mounds of loan documentation, I was interested in how these ideas and discourses were being received and interpreted by local municipal governments, and the effects at the neighborhood level. What information filtered down to the local level and what did not? How were the “corrective measures” (KUIDFC 2004: 58) instituted to reign in the urban frontier being received? Finally, I wanted to ethnographically study the “everyday state”—those routine encounters between frontline bureaucrats and residents, modes of complaining about and negotiating services, and informal exchanges that are so formative of state-society relations in India.

On most days that I would arrive at the municipal office with my assistant Vinodha, I would begin at the Nirmala Nagara helpdesk located on the ground floor of the municipal building. This stopover not only permitted a quick run-down of the local news, but it also enabled me to observe the workings of the e-grievance system. The helpdesk was established in 2005; in that same year, the e-Governments Foundation helped to launch Kannada and English websites for 57 municipalities across the state. Through these websites, basic statistics on the city can be obtained, personal details registered, and grievances filed. In early 2007 when I started my fieldwork in Bangalore, the help desk and city websites were still in operation, but the eight cities of peri-urban Bangalore were gradually making the transition into the zonal headquarters of the Greater Bangalore City Corporation and were synchronizing their systems with the latter to this end. According to my interviews with help desk staff, however, complaints were still being filed and reports generated in 2007 much as they had been prior to the Greater Bangalore merger. I was thus able to use the early part of 2007 to explore how e-grievance redressal and new notions of accountability were taking effect at the peri-urban frontier.

On my first visit, Jyothi, a young and friendly phone operator employed by a local non-governmental organization to staff the helpdesk, was perplexed by my line of questioning: “But what is your complaint [*Aadre nimm tondre eenu*]? she asked me. I explained to her that I myself

did not have any, but was interested in understanding what people complained about, who complained, where these complaints come from, and how they are attended to. How often does the lack of or poor quality water and sanitation get recorded as a complaint for instance? After a few more visits, Jyothi allowed me to observe the grievance registration procedure and talked it through with me.

Figure 17. E-grievance redressal routes



When residents face a problem, they have three main options for reporting it to the helpdesk according to the design of the e-grievance system: (a) by reporting it in person and/or concurrently submitting a letter, (b) by reporting the complaint over telephone, or (c) lodging the complaint over the website (Figure 17). Once received, the helpdesk personnel records all written or in-person complaints in a logbook and transfers the information to a centralized e-grievance database at the end of the day. Non-Internet routes were included because of the low penetration rate of the Internet in India. If citizens have access to the Internet, they can lodge their complaints directly by clicking on a link to “grievances” from the city’s homepage. This link then takes them to a multiple-choice form (Figure 18). Once on this page, they can choose from a set of 90 pre-coded complaints organized under ten main headings, such as “Engineering section”, “Health section”, “Community affairs” and “General administration”. Under “Engineering”, complaints pertaining to broken streetlights, blocked underground drainage, interruptions in water supply, poor roads, etc., can be registered. Under “Health”, they can file complaints about the lack of garbage removal and overflowing storm water drains, among other options. Under “Community affairs” citizens can register a complaint in regards to—or against—“slums”; further details on how exactly this complaint is to be interpreted are not provided. This format of city websites is currently in use in several other cities throughout the state (e.g. Hubli Dharwad, Mysore), although the websites of Greater Bangalore’s municipalities have since been removed.

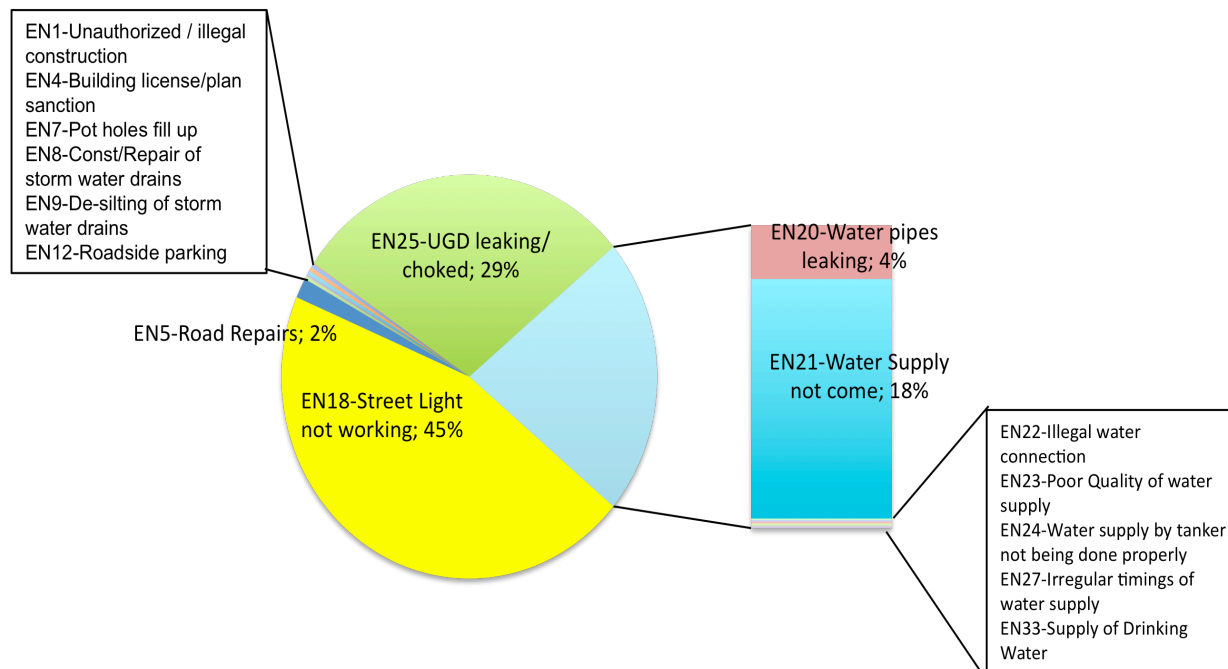
Figure 18. E-grievance multiple-choice form

ದೂರವೇಷಣೆ / Complaint Details	
Ward Choose	FindWard
ದೂರವೇಷಣೆ / Complaint Types*	
Common Complaints EN21-Water Supply not come	
ENGINEERING SECTION	COMMUNITY AFFAIRS DEPT
EDUCATION	HORTICULTURE
VETERINARY SERVICES	INFORMATION TECHNOLOGY
HEALTH SECTION	REVENUE
GENERAL ADMINISTRATION	TOWN PLANNING
ಮತ್ತೇನಾದರೂ ಇದ್ದೇದ್ದೇ / Is Other :	ಹೌದು / Yes ☐ ಇಲ್ಲ / No ☒
ಬೇರೆ ಇದ್ದೇದ್ದೇ ದಯವೇಟ್ಟು ನಮೂದಿಸುವುದು / If Other Please Specify :	
<input type="text"/>	

Source: Bommanahalli City website, accessed January 29, 2008

This system of communicating grievances is thought to be a distinct improvement over earlier systems “wherein the citizen would approach the municipality with a complaint; register it through a paper form or over the phone and keep wondering about the status of the complaint and its redressal” (CMAK 2006: 6). Moreover, the e-grievance system is capable of generating real-time graphs, reports, and maps that display the total number, relative frequency, and geographic distribution of complaints in the area. The reports are claimed to “aid the Municipal Commissioners and other officials to streamline the municipal functions through process reengineering [and] proper planning [which] in turn bring about transparency of information and smoother delivery of municipal services” (CMAK 2006: 3). From the Bommanahalli website, I generated a report of complaints for the area across all wards from August 2005 when the system was first launched to June 2007 (i.e. 22 months). Overall, “Engineering” had the greatest frequency of complaints (n=2,862) relative to “Health” (n=569) and “Community affairs” which registered a negligible number of complaints. Within the “Engineering” category, I generated a report of the frequency of issues reported. I reproduce this report in Figure 19.

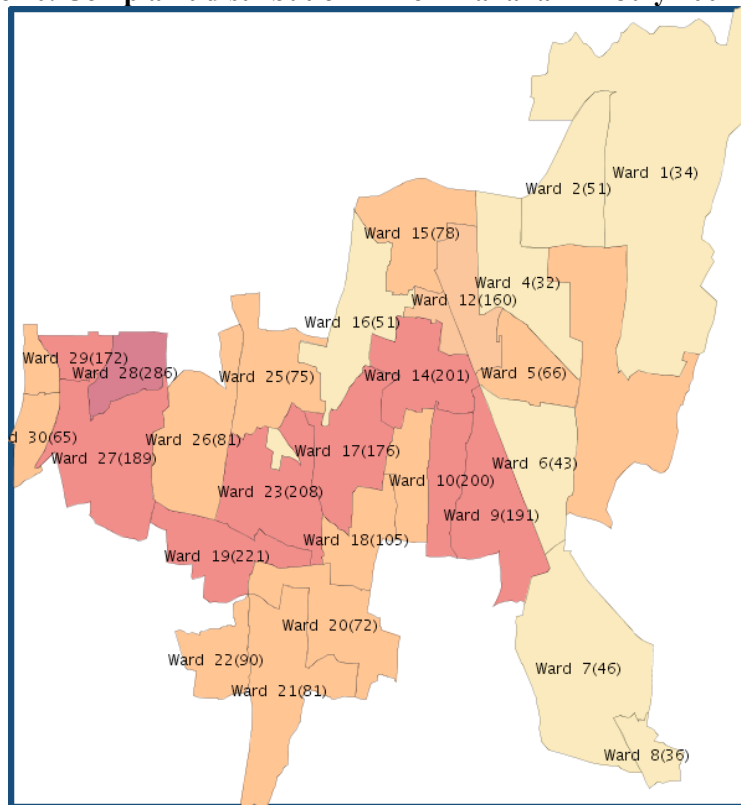
Figure 19. Grievance data for Bommanahalli, August 2005-June 2007



Note: n = 2,892 complaints. *Source:* Bommanahalli City website, accessed January 29, 2008

Based on the data provided by the system, problems with streetlights appear to be the most frequently reported (45% of all reported complaints over two years), followed by underground drainage (UGD) (29% of all problems reported), followed by water supply problems (approximately 22% of all reported complaints). I generated a similar report for the category “Health” [n=569] and found that problems related to garbage collection comprised 96% of complaints made in this category. Thus, streetlights, underground drainage, water supply, and garbage seem to be the most common grievances from the reports generated in descending order of priority. Similar results were obtained for other municipalities: over the same time period in Mahadevapura [n=1,969], 66% of all complaints in the “Engineering” category were related to malfunctioning streetlights. In two recent analyses conducted on behalf of the DMA to evaluate the functioning of the e-grievance interface in cities across Karnataka, complaints related to “Engineering” were, again, found to be the most common, and in a majority of cases, streetlights were found to be one of the most frequently reported issue. Apart from categorizing complaints according to the type of problem reported, the distribution of complaints over space can also be captured via online tools. For instance, a geographical information systems (GIS) report generated from the e-grievance system (Figure 20) depicts the distribution of complaints in Bommanahalli according to ward number. The darker the coloring of the ward in this image (e.g. Ward 28), the higher the number of complaints received in that particular area.

Figure 20. Complaint distribution in Bommanahalli in July 2007



Source: Bommanahalli City website, accessed January 29, 2008

From these e-grievance reports, a certain statistical picture of municipal affairs in Bommanahalli begins to emerge. Mitchell's (1991) notion of enframing—the act of separating the world into a “reality” and an “objective” representation of that reality as ontologically independent of it—is useful here. A significant critical literature that draws on Foucaultian theorists, moreover, explains how particular knowledge traditions such as statistics make claims to authority and truth precisely because of their seeming objectivity and their active disavowal of bias. Demeritt (2001) argues, for instance, that the power of “statistical picturing” is that it appears neutral and beyond reproach (see also Porter 1995; Scott 1998). In this case, since the e-grievance system's statistical enframing is predicated on citizens reporting grievances themselves, it provides the impression of being a mere representation of an external reality.

Two specific aspects of enframing should be noted here. First, because of the manner in which grievances are clustered together, “engineering” is constituted as a field that is most in need of intervention as opposed to any of the other categories listed in the online multiple-choice form. Furthermore, because water supply is grouped under this field, it is considered to lie within a technical domain wanting of engineering expertise as opposed to, say, a public health domain or a communities affairs domain. It can be said that the e-grievance system categorizes services in this manner to match the prevailing administrative silos of the local government office. Nevertheless, it is crucial to be mindful of the fact that enframing not only orders seemingly disparate and heterogeneous elements thus rendering them available to disciplinary controls but it also *constitutes* a particular reality (Christophers 2007). In this case, constituting water within

the domain of engineering reinstates a technical orientation to solving the problem, while detracting from the more political, health-related, or even behavioral aspects surrounding water supply.

Second, proponents of the e-grievance system make claims about its authoritativeness in depicting the reality of service related issues, and more importantly, about how useful the system is in bringing about accountability and guiding municipalities in prioritizing their budgets and activities. However, whereas malfunctioning streetlights are one of the most commonly reported problems in the e-grievance database across municipalities in Karnataka, as I will show below, streetlights were not seen as critical in my interviews or in media and anecdotal reports about Greater Bangalore as other issues that plague residents collectively. Because the *number* of times any type of complaint is reported is taken as a proxy of the actual *severity* of that issue, DMA-sponsored studies evaluating the e-grievance system make authoritative claims such as: “there are more complaints in the streetlight sector hence the ULB needs to revamp and closely monitor that sector” (CMAK 2009: 13). What is important here is not so much that enframing occurs, but that by making claims to authority, the stakes of enframing are significant. That is, not only does the act of enframing grievances capture a skewed picture of citizen complaints for reasons I explain below, that same skewed picture is also claimed to be a legitimate representation of reality. Before discussing the stakes and implications of this further, I first review my own findings about service-related complaints in Greater Bangalore in order to provide a basis of comparison.

3.3. Differentiated Tenure, Differentiated Waters

Malfunctioning streetlights are no doubt an annoyance and a safety issue in urban areas. However, in 44 interviews with peri-urban residents, including representatives of neighborhood associations in Bommanahalli, Byatarayanapura, and KR Puram, streetlights were only cited as a concern in 11% of my interviews (see Appendix A for interview protocol) in response to the question: “what are some of the major grievances your area faces?”. By contrast, water supply, roads, and drainage were mentioned as central issues in 80%, 52% and 50% of my interviews respectively (Table 1).

Table 1. Major infrastructure issues mentioned in interviews

Infrastructure issue area	Number of interviews in which issue was mentioned as major concern	Incidence of issue in 44 interviews
Water supply	35	80%
Roads	23	52%
Underground drainage	22	50%
Flooding	9	20%
Land tenure regularization	9	20%
Streetlights	5	11%
Garbage removal	4	9%
Ration cards	2	5%
Parks	2	5%
Schools	1	2%

A recent newspaper poll similarly found that irregular water supply, bad roads, and choked drains are three common complaints that plague all assembly constituencies in Bangalore, in addition to “traffic chaos, flooding during rains, water contamination, and garbage pile-up” (Kaushala 2008). In their research on access to infrastructure in Mahadevapura, Bellandur and Kengeri in Greater Bangalore drawing on 138 interviews, Kamath et al. (2008) also find that the lack of underground sewerage and drainage systems and the resulting problem of flooding particularly during monsoonal rains are amongst the most dire issues in peri-urban areas. Although monsoonal flooding and regularization were both mentioned more frequently in my interviews than streetlights, such critical issues are rarely captured by the e-grievance database. During several interviews, I pressed this issue further by asking residents if streetlights were an important issue to them, to which one woman in a small group discussion in Bommanahalli (Figure 21) responded:

We aren’t so bothered about streetlights; one or two sometimes get broken, but somehow we manage. When there is no sanitation here and no water, how will we worry about streetlights? There is not even enough water to bathe (laughing)! We have to bathe once a week, not daily [*vaarake ondee satte snaana maadoodu, daily illa*]!

Figure 21. Residents discuss their grievances in a Bommanahalli home



Another elaborated on the issue of flooding:

Since the past four years or so, there have been so many problems here [*liiga oondu naalaku varshedinda sikkapatte tondre ide*]. A few years ago this area was so badly flooded that this lady's grandson died in the flood. Water was at five to five and a half feet. The area flooded so badly because the levy at Begur Lake broke. That same night it rained very hard, so even more water came out. If there had been sanitation or drains, the water would have been able to pass through. But all the drains and pipes here are choked up. People build residences over the whole *rajakaalve* [large drain]. Because of that the area got fully flooded.

I discuss in the following section how such distress complaints are communicated to the state and why they do not end up getting recorded in the e-grievance system. The important empirical finding here is that the e-grievance system tends to inadvertently screen out certain types of extremely dire complaints as well as certain *modes* of complaining, thereby capturing a statistically biased picture of municipal grievances. This would not be such a serious problem if it were not for the fact that e-grievance data is considered representative of an existing reality, and is thus used for allocating budgets and decision-making. As Wallack and Nadhamuni (2008: 9-10) find through their survey of 74 commissioners, deputy commissioners, and chief officers across 38 cities in Karnataka three years following the implementation of the e-grievance redressal system, the data generated “is used for work planning and short-term allocation of resources as well as for monitoring departments’ performance.” Further, a report published by the Urban Development Department of Karnataka states that the data generated through e-grievance redressal “enables performance measurement of municipal staff” (GoK 2006: 3). We need to be cautious about such statements and interrogate them ethnographically to understand the politics of transparency and accountability—in other words, the question of to *whom* the

municipal staff is being made accountable to must be asked. Before I turn to this topic, I describe one other important area of bias in e-grievance redressal.

Research I undertook with collaborators in Bangalore found there are at least *seven* different modes through which peripheral urban dwellers gain access to water, largely depending on the type of settlement and land tenure they possess (Ranganathan et al. 2009). Bangalore is not unusual in this regard. Studies on the peri-urban interface elsewhere have also shown that residents use multiple modes to access water and coping mechanisms to deal with unreliable supply (e.g. Allen et al. 2006b). As the history of the frontier in Chapter 2 showed, the majority of residential settlements at Bangalore's fringes are considered "unauthorized" and have not been approved by nor do they conform to the norms specified by the planning agency for the city, the BDA. But informality is also highly internally differentiated; it is not possible therefore to clearly demarcate settlements based on the antinomies of "unplanned" and "planned" and "legal" and "illegal" since settlements in fact fall along a continuum of tenure arrangements. Thus the *relative* legality and tenure security of settlements are often factors of patronage relations and permissions and de facto sanctions secured from the local state.

Just as there is a high degree of variation in tenure, then, so too is there significant variation in the type, pricing, and quality of access to drinking water. Figure 22 shows that there is an overall positive correlation between tenure security and access to water: while a small minority of wealthier households and those settlements relatively more "planned" can obtain formalized individual piped water connections from the utility, use household purification devices, and often sink their own private borewells as a supplementary source, poorer and lower middle class households in relatively more "unplanned" areas depend on hand pumps and municipal "mini water" borewell schemes often sunk at a much shallower depth than private borewells. An intermediate range of households source their water in a variety of ways, including piped community borewell networks, bottled water, and tankers. The relative prices of these sources also differ markedly as Table 2 indicates. The key point is that although the e-grievance system broadly accounts for grievances related to water supply, it neglects to account for this high degree of variation and differences across planned and unplanned settlements. Grievances related to municipal borewells, water tanker delivery, and community hand pumps, for instance—often voiced through a terrain of collective struggle by residents of unplanned areas—are not reflected in the e-grievance data (refer to Figure 19). In the following section, I delve into the details of this collective terrain of struggle, and, in turn, how accountability and responsiveness come to be negotiated in culturally specific ways.

Figure 22. Correlation between tenure and access to water



Note: Y-axis represents increasing legality of land tenure ranging from slums to BDA-approved layouts. X-axis represents increasingly safety and quality of water access ranging from handpumps and community borewells for those with the least tenure security, to water tankers, private borewells, bottled water, and household water purification devices for those with the most secure tenure.

Table 2. Different modes of water access in Greater Bangalore

Mode of access	Who accesses	Provider	Price/Cost
Hand pumps (very few functioning)	Poor groups living in urban villages, slums, and revenue layouts.	Public (ULB)	Free
Borewell water (ranging from 500-800 ft in depth) stored in “mini water tanks” with attached public taps	Poor groups living in urban villages, slums, and revenue layouts.	Public (ULB)	Rs. 44/month (very few pay)
Piped borewell water	Lower and middle class groups in revenue layouts	Public (ULB)	Rs. 44/month (very few pay)
Tankers (sourced from private borewells belonging to large landowners)	Lower and middle class groups in revenue layouts	Private and public (ULB)	~Rs. 50-70/kL (Rs. 200-300 per 3-4 kL tanker load), and up to Rs. 1,200/month
Private borewells (ranging from 800-1,200 ft in depth)	Middle and upper class that own houses. Sufficient land and documents are needed to get a power connection to pump water up.	Private	Water is free, but costs a one-time amount of Rs. 2 <i>lakh</i> to sink a borewell + recurring electricity costs
Bottled drinking water	Purchased by wealthier middle class households to supplement tanker and bore water.	Private	~Rs. 6,000/kL (Rs. 30 per 5 L bottle), and up to Rs. 300/month
Piped Cauvery water (2-4 hours per day every other day)	Only 10% of the periphery and in BDA-approved areas only. Areas include Kengeri Satellite Township, Yehalanka, technology parks like the Information Technology Park Ltd, a few large apartment complexes, etc.	Public (BWSSB)	<p>Connection charge of Rs. 1,600-2,000 + prorata charges</p> <p>Domestic tariffs are variable. In some CMCs, BWSSB charges Rs. 25/kL. In others, the domestic block tariffs are:</p> <p>0-8 kL; Rs. 6/kL 8-25 kL; Rs. 9/kL 25-50 kL; Rs. 30/kL Above 50 kL; Rs. 36/kL</p> <p>Industrial tariffs vary from Rs. 60-70/kL</p>

Source: Ranganathan et al (2009)

3.4. The Politics of Accountability

...accountability is a socially produced, culturally saturated amalgam of ideas about person, presence, and polity. Despite its claim to a universal rationality, its meanings are culturally specific, and its operation is constrained by the ways in which its operators and clients interpret its actions. Its management of personal or collective identity cannot break free of social experience (Herzfield 1992: 47).

“Nothing will get done with the I feeling”: Engaging the everyday state collectively

Why does the e-grievance system capture only a sub-set of grievances about municipal services and why does this matter? Answering this question requires a much deeper understanding of political agency in post-colonial India and how demands or complaints, as Kaviraj (2000: 150) puts it, are often perceived to be “taken more seriously if they are made on behalf of communities rather than individuals”. At the core, it requires an interrogation of how, despite universalizing claims that accountability comprises contractualized “relationships in a service delivery chain” (World Bank 2004b: 6), it is a semantically open-ended field richly saturated with social and cultural markers, meanings, and idioms (Herzfield 1992).

While interviewing Srinivas, an assistant executive engineer in Bommanahalli in charge of water in June 2007, we were interrupted by 25 or more distressed residents, mostly from lower-middle class backgrounds. Although the crowd consisted mainly of women, four men led their charge. They stormed Srinivas’ tiny corner office on the second floor of Bommanahalli’s headquarters and filled it to capacity. Some women were left no choice but to stand outside his full office peering eagerly over the shoulders of those in front. They came from low-lying revenue layouts in ward 15 of Bommanahalli that often get flooded after a bad downpour. In this ward, a few borewells sunk by the local government had gone dry; in many cases the motor had worn down so badly that the pump no longer drew water. The crowd was visibly agitated: “We’ve had no drinking water for days!” they began; “the bore pump is broken and no tankers have come to our street in weeks.”⁴⁵ How long will you take to repair the pump? It’s already been one month. Why is it that our area is never looked after whereas other areas get water?” Several then started speaking at the same time, running off a list of problems their area had been plagued with in recent past, including flooding and blocked sanitary pipes.

Faced with such a large crowd, Srinivas was clearly outnumbered. He ordered the women to “speak softly” [*nidhanavaagi heeli*] and proceeded to listen to them with the demeanor of a stern schoolteacher, often raising his hand to direct the crowd not to speak out of turn. A few minutes prior to this incident, when I had questioned him about the e-grievance system’s reporting of street lights as the major concern in the area, the engineer had just finished furnishing an explanation: “These people [those reporting about streetlights] must be filling their complaints over email or maybe just by phone. Poorer people would not be having access to email. Mostly we get oral complaints from poor people. We get at least 20-25 oral complaints per week, and mostly they come together to complain about water”. Helpdesk personnel on the eastern fringes of Bangalore echoed Srinivas’ explanation: approximately 40% of complaints in Mahadevapura are made in-person mainly about water supply and drainage. Often these do not

⁴⁵ The local government sends supplemental tankers in the event of borewell failure.

get recorded in the e-grievance system since people make their way directly to the engineer or municipal commissioner to voice their grievances. Fifty per cent of complaints come in by phone, and most of these pertain to streetlights. Less than 10% of complaints pertaining to various issues are filed via the Internet. Wallack and Nadhamuni (2008: 12) similarly find in their evaluation of the grievance redressal system that “several cities mentioned parallel processes for managing public grievances...Some department officials, for example, received complaints directly from citizens or specifically went out to worksites to check for potential complaints. Others mentioned using phone calls or direct communication to route complaints to the appropriate departments in emergencies”. In Bommanahalli, since Srinivas’ charge was water supply, although he was somewhat aware of the e-grievance system, it was a governmental technology that seemed far removed from his day-to-day encounters and responsibilities.

The mob appeared in his office as if to demonstrate the collective and intimate nature of water access and struggle. In this particular case, the issue was one of poor maintenance of a piped municipal borewell system that several residents shared. In front of the women, the engineer picked up his cell phone and dialed the contractor in charge of maintaining that borewell. A few seconds later, he hung up in frustration announcing that “the contractor is absconding, as usual!” What the engineer meant is that the private contractor—the so-called “last mile” in the delivery chain—had failed to honor his responsibilities of regular maintenance check-ups and was now refusing to answer calls. He then turned to the women, reassured them that their woes would be attended to “in four days”, accepted their written complaint and laid it on top of a pile of complaints that had already come in that day—complaints that I later found out had not been fed into the e-grievance system, and were not likely to be. Before dismissing the crowd and returning to his cell phone, Srinivas said to me defensively: “O&M [operation and maintenance] of borewells is outsourced to contractors. Tankers are also given out through tenders. Sometimes contractors don’t do their duty.”

I later spoke to the women and discovered that some number of them came to the municipal office at least once a week, sometimes more. A single visit to the help desk of the municipality rarely sufficed. Several believed, moreover, that it was better to speak face-to-face with an official even if it meant being more confrontational rather than approach or call helpdesk personnel. “By phone nothing happens, we must come ourselves”, one of them remarked. They felt that if they could directly appeal to the engineer’s sense of “duty” to attend to their problems, there was a greater chance of their complaint being attended to. Many also continued to visit ex-councilors to voice their complaints even during the three-year hiatus in Bangalore’s elected council because of the conviction that the “good” councilors, even erstwhile ones, could influence the behavior of contractors and engineers through constant surveillance and political pressure. As senior officers and residents throughout the area are liable to agree: “in most municipalities, contracts are given to the kith and kin of the elected representatives”.⁴⁶ There is thus greater leverage that political actors are able and expected to exert on service contractors. An official at the City Manager’s Association of Karnataka that had partaken in a DMA-sponsored evaluation study of the e-grievance redressal system commented on the potential merits of what he referred to as the “old” system—that of complaining directly to councilors:

⁴⁶ Interview with KUIDFC official on May 24, 2007

In some places the old system of complaining continues. People will complain to councilors. The councilor comes in the morning and he will call all the influential councilors. The influential councilors will then call the engineers and watermen [contracted borewell workers] and get the complaint attended to. Sometimes this could work better than the grievance redressal system (Interview with CMAK official on July 10, 2007).

As reflected by this quote, I found that access to water connections is heavily influenced by negotiations and deals made with and between local politicians, engineers, and watermen. Face-to-face negotiations are particularly critical in the case of drinking water in which residents use a multiplicity of arrangements for obtaining access. As Kamath et al.'s (2008: 61) study puts it: "mobilization for water services mostly takes part at the local level with residents acting via a network of local politicians, local leaders, watermen, *sanghas* [associations] and lower level municipal officials".

If there is material advantage to such quotidian encounters with lower rungs of the bureaucracy and local political leaders, then, so too is there symbolic value that should not be under-estimated. In fact, the "humdrum routines of bureaucracies and bureaucrats' encounters with citizens...is the stuff out of which the meanings of states are constituted" (Gupta 2005: 28)—indeed they are the medium through which the "everyday state" comes to be discursively constructed and imagined (Fuller and Harriss 2000). The notion of the everyday state reminds us that most people in India learn to *experience* the state and build rapport through their meetings with particular lower and middle-level government officers and frontline engineers, and their *darshans* [literally "sightings"]⁴⁷ with local politicians. The state is typically apprehended not as a discrete or singular entity, but as "bundles of everyday institutions forms of rule" (Corbridge et al. 2005: 5). Keeping in view the everydayness of the state alerts us to the fact that the separations between state and society are quite porous; if they are perceived as boundaries, it is not that these boundaries are given. Rather, it is because they must be constantly enacted and performed so that the threshold separating a government office from the public, for example, is a symbol by which the state comes to be "ideologically parted the state from society that it governs" (Fuller and Harriss 2000: 24).

Encounters with the everyday state to voice a complaint—whether at an engineer's office, on his inspection beat, at a councilor's home, or through a staged *galata* or *horata* [literally "a loud noise" or "show of strength"; a protest]—"act to reinforce a set of norms and expectations of government" (Corbridge et al. 2005: 118). Such quotidian points of interaction are opportunities, moreover, for people to inform their specific understandings of the relative competence and corruption of political actors, and to thereby draw comparisons between actors—actions that are foundational to how people see and embody citizenship. As Akhil Gupta's (2006 [1995]) detailed ethnography in rural northern India has found, people are not only able to shrewdly assess the state "as an entity with multiple layers and diverse locales and centers" (ibid: 228), but their *talk* of corruption also "plays the dual role of enabling people to

⁴⁷ "Darshan" literally meaning "sighting" is most commonly used with reference to viewing a deity during worship at a Hindu temple. However, I heard it being frequently used in a tongue and cheek way in my conversations in Bangalore to suggest that the public sometimes treats politicians as if they were gods and, politicians sometimes behave as if they were, in fact, gods.

construct the state symbolically and to define themselves as citizens” (ibid: 226). Since “the other face of the discourse of corruption” is, after all, “a discourse of accountability” (Gupta 2006 [1995] : 225), it is critical that we tap into these locally embedded meanings of corruption/accountability—meanings that hold salience in the everyday lives of people—if we are to comprehend what drives state institutions to be responsive. In one discussion in Bommanahalli, a group of residents debated the relative merits of councilors as follows:

That councilor Pappaiah Reddy is no good. He is so disrespectful and he also eats money. He knows only how to do that. We struggled so much but he never did any work around here [*Sumar horata madiivu naavu aadre eenu kelsa illi madlilla*]. But T Ramachandra and Syed Anwar are OK [*T Ramachandra matte Syed Anwar parvagilla*]. Compared to others, Ramachandra has done a good job. He has developed the area very well, he listens in a polite manner when we go and complain to him. He also does the work afterwards.

Others in Bommanahalli consistently echoed this comparison: “Pappaiah Reddy is a very corrupt and dislikeable fellow” they told me over and again, “but Ramachandra is much better”.

Councilor T Ramachandra is no doubt also keenly aware of how to cultivate his popularity and public image: “Anyone who comes to meet me in the morning”, he proudly told me when I later spoke to him at his house in Bommanahalli, “first I give them coffee and tell them to sit. I listen to what they have to say, and then at 6.30-7 am I [will make a] call to the engineer or contractor about the problem. I put some pressure and ask ‘eh, why you are not doing your job?’. I know how to put pressure on engineers and the health department”. When I asked him specifically about the e-grievance helpdesk, he replied: “Yes, a counter is there but it is no use for the public. We have to go to the office, we have to make a noise there in front of the officials [*alli aafisu hoog beekoo, adhikaargalu munche galata maad beekoo*].” He then proceeded to run down a list of accomplishments during his tenure as councilor, including a public borewell for which he “did not take one *paise* from the CMC”, but funded out of his own pocket. When I asked Ramachandra to talk about his political career more self-reflexively and what he thought he owes his popularity to, he explained: “I know how to act in government, how to help [the] public, how to take funds for [the] public. If anyone has a sickness, I will take them in my car to the hospital. Politicians just wear white shirts and try to boast about what they do. I don’t do that. I work genuinely”.

It is true that his reply must be taken with a pinch of salt, and locally embedded politicians like Ramachandra may not be the norm in Greater Bangalore. But what we learn from studying such politicians and their relationship with constituents is that quotidian encounters with state actors and the resulting stories about their relative levels of corruption/accountability structure *affective* relations between citizens and the local state. Talk of government corruption may pervade elite, middle class, and lower class sensibilities alike in India, and it is clear that the practice of corruption in many cases does deprive citizens of their rights (Fuller and Harriss 2000: 13). At the same time, just as we must be careful not to gloss accountability as a “universal rationality” (cf. Herzfield 1992), we must be careful not to characterize corruption as such. Rather than exalt “internationally mobile narratives of efficiency and transparency” (Gupta 2005: 29) as a means to “retrofit” the state through market mechanisms, we must pay close attention to

and revalue these stories and affective relations that structure and are structured by encounters with the everyday state.

In the case of water delivery, it is the *collective* nature of struggle that marks these quotidian encounters and context-specific constructions of accountability. The endeavor to enhance the livability of cities, then, must account for the fact that communities often engage state agencies collectively—and often through conflict—and not just as individual clients (Evans 2002). What I witnessed that day in Srinivas’ office was by no means rare: on nearly every subsequent visit I made to the municipal office, groups of women would arrive collectively to present their complaints about malfunctioning public borewells, floods, and problems with overflowing sanitary outlets. Importantly, they noted that complaining in groups—either a spontaneously formed collective or through associations—is more efficacious than complaining alone. As one resident later put it:

I am at the back of the officials all the time. Sometimes, I make 50 calls per day. I’ll call and ask: “Why isn’t the water coming?” If people are not responding, I’ll take a crowd of people with me there...It is not possible to solve all problems in all areas. But we should join together and the *we feeling* should be there, not just the *I feeling*. Nothing will get done with the *I feeling* (Interview with Bommanahalli resident on August 27, 2007).

As Karen Coelho (2005) finds in her ethnography of water reform in Chennai, the poor exploit group-oriented strategies because of their recognized leverage in demanding a reaction out of frontline functionaries. This is to some extent consonant with Partha Chatterjee’s (2001: 177) notion of the “collective form” in which members of a poorer, legally transgressive political society “appear before the state” and “demand governmental welfare as a matter of...collective rights”. These are rights demanded not on behalf of individual law-abiding citizens, but on behalf of a community that collectively engages in particular forms of consumption. Institutionalized complaint mechanisms and e-grievance redressal, on the other hand, are technologies of administrative control that, in aiming to “create a customer-service mentality” (Wallack and Nadhamuni 2008: 2) as proponents claim, represent “a form of *individuation*” (Coelho 2005: 186, emphasis added). That is, the e-grievance system implemented through Nirmala Nagara enframes a much greater proportion of complaints filed by individuals than those voiced collectively, and in so doing, under-reflects service complaints that are negotiated via political connections and fought out through group solidarities. The key point here is that via reforms, “the instrument of the complaint, structured as a problem of the individual customer that is amenable to being solved, denies or renders invisible the field of struggle implicit in the collective character of access to water and sanitation in the city” (Coelho 2005: 186).

Unlike Coelho’s findings on Chennai’s slums, however, I found that collective struggle at Bangalore’s frontier around water by the peripheralized middle class entails *both* spontaneous, loosely defined, and more unruly “delegations” and protest strategies as she refers to them, as well as registered and more orderly resident welfare associations. While the latter do tend to reflect the more “civilized” markers of what Chatterjee (ibid) dubs “civil society”, the fact that most associations in peri-urban Bangalore represent the peripheralized and informalized middle classes (in the sense that they own and occupy land in legally tenuous ways) means that their

politics are remarkably difficult to slot into standard characterizations of civil society and associationism in urban India. I discuss these complex and little-studied politics and their theoretical importance in relation to Chatterjee's thesis and the literature it has spawned in much greater detail in Chapter 6, particularly in light of their articulation with neoliberal water pricing reforms. Here, however, I would like to explore how the more spontaneously formed, disorderly, and loosely affiliated groupings of peri-urban Bangalore present their grievances to and engage the everyday state. This will be invaluable to understanding how accountability comes to be culturally constructed and locally embedded.

The Democratic Youth Forum of India (DYFI) is a youth-based wing of the Communist Party of India (Marxist) or CPI (M) with party cadres operating across the country, often in alliance with the Center of Indian Trade Unions (CITU)—an organization that is also politically affiliated with the CPI (M). Prompted by a massive monsoonal flood in 2005 in Bommanahalli that left many without food, water, and shelter for weeks, DYFI convener Lakshman Kumar began to organize around civic issues in the area under the banner of *Bommanahalli Nagarika Hitarakshana Vedike*—or the “Bommanahalli Citizen's Welfare Platform”, primarily in the wards of Hongasandra and Garvebhavipalya (Wards 9-11) of Bommanahalli. Interestingly, Kumar and other organizers did not choose the more typical words for “association” in Kannada—*samsthe*, *sangha*, *sanghatana*—but rather *vedike*. Literally translating to a raised floor (stage) or platform, *vedike* in Kannada connotes the sense of a movement that *stages* strikes, protests, and other types of public action in support of its cause.⁴⁸

I first met Lakshman Kumar through Shamana Reddy, the public sector retiree and local of Bommanahalli introduced in Chapter 2, who suggested I accompany him to a DYFI community meeting the next day to understand how people in the area organized around their grievances. At the meeting, Kumar enlisted attendees—all local residents from Bommanahalli—to form “struggle committees” to continue fighting for water, the public distribution system, land tenure and other issues that they cared about and had vocalized at the meeting. When I spoke to Kumar after the meeting, he gave me a quick history of how his *vedike* came to be active in the area:

At that time of the flood in 2005, different political parties started to distribute food packets and become active here. We also came because I felt that people needed help in pressurizing the administration to do something about the water logging. My workers helped to unblock the *rajkaalve* [large drain] to allow the water to pass. It had been encroached and choked up so badly, you know. Then we summoned all the residents and planned a big convention because we thought this was the right time to demand more from the administration. This [wards 9, 10, and 11] was also the worst affected area. When we organized a protest, people came forth. Around 2,000 people gathered...it was massive...that was the turning point for our activism. That emboldened the people: they realized that if we come together, if we are active, we can push the administration to move. So we entered

⁴⁸ In Bangalore, the term *vedike* is today most commonly associated with the Karnataka Rakshana Vedike, a pro-Kannada nationalist organization. *Vedike* is also the colloquial term now used to describe a pro-Kannada activist.

here; they also needed it. Like that we stayed. We forced the administration to look into real peoples' issues.

As a politically affiliated front of the CPI (M) whose membership is broader than its parent organization (see Ray 1999), DYFI has managed to mobilize both working and middle class residents in revenue layouts around compensation for flood damage, ration cards, drinking water, and sanitation via the formation of its Bommanahalli *vedike*. In the tradition of its more militant origins, DYFI's organizational strategies typically entail street protests or sit-ins [*dharnas*] and, as I was told by Lakshman Kumar, the *gherao*-ing [surrounding with force] of the Bommanahalli municipal building on Begur Road, sometimes even to "lock it with big locks and chains so that those officials can't come out". DYFI members cited several instances in the past few years in which they had stopped traffic on the busy Hosur Road running through Bommanahalli to Electronic City because "IT areas like Electronic City and ITPL get Cauvery water but in Bommanahalli, we don't get even a drop. The pipes even run through our area!" As one newspaper described an incident in 2007:

The growing water crisis in Bangalore took another form with residents of Bommanahalli taking to the streets. Nearly two *lakh* people residing in different areas in Bommanahalli zone of BBMP such as Hongasandra, Chikkanahalli, Billekahalli, Garvebhavipalya, Vajpayeenagar and Shanthi Layout, had not received water for the last few months. To have the authorities pay heed to their grievances, the residents under the banner of *Nagarika Hitarakshana Vedike* held up traffic on the busy Hosur Road for about 40 minutes... "We have been reduced to standing around as beggars and waiting for water late into the night. But it has not come for the past three months now," said Gladys Perriera, a resident of Vajpayee Nagar and member of Democratic Youth Forum of India (DYFI) (The Hindu 2007a).

Protests, needless to say, typically do not result in much. In most cases, protestors merely succeed in obtaining "concrete assurances from officials" that their grievances will be attended to (The Hindu 2008) but it is not all that clear that these assurances are translated into concrete action. However, what can be said is that protesting and other avenues through which the local state is confronted have succeeded in increasing the visibility and clout of the loosely affiliated DYFI members. As a result, over time, participants have won smaller victories. For instance, I grew to be quite familiar with one ad-hoc member of the *vedike* cited in the *Hindu* article above, Agnes Gladys Perriera, over several visits to her home in Vajpayee Nagar in ward 9 of Bommanahalli. A Manglorean Tulu-speaking⁴⁹ Catholic, Agnes purchased a 60 x 40 ft plot in an unauthorized revenue site in Vajpayee Nagar "after taking the permission of the local municipal government" (see Chapter 2 for what this means) for Rs. 1 *lakh* in 1996 because, as she recounts it, "I used to say all the time that I want my own shelter; I used to tell my husband 'we should have our own small house in Bangalore'". But "after building the house, we had no more money left. We were Rs. 1 *lakh* in debt plus interest, so I went to Saudi Arabia as a nurse and I came

⁴⁹ Tulu is the native language of Mangalore, a coastal region of Karnataka. While fluent in Kannada, Tulu, and working English, Agnes spoke Tulu at home with her family and switched to Kannada with ease when outside of the home or when speaking to visitors.

back almost 10 years later”. She continued with the story of how things had changed upon her return:

When we first came here [in 1996], there was no proper electricity or water, no telephone connection; nobody used to even pass by here. Not even the postman or courier would come to this area. It was only after the big flood in October 2005 that the CMC opened their eyes and saw that we were living here. DYFI came out of nowhere at that time to help us. We worked together as a group. Before that, I didn’t even know who my next-door neighbor was. Because of DYFI, we got things done in this neighborhood like roads and water supply. We fought for the roads; now they are digging it! ...After our protests on Hosur Road, I went on telephoning the JC [joint commissioner] and he hauled up his engineers. I said: ‘what is this? You promised water every day. How can it only come 1-2 times per week? Fine, we don’t want it everyday, but how about alternative days?’ We can’t go and stand at the public bore and get water—that is embarrassing for us. People fight in the line saying “I’m in front!” but we cannot do that. It’s the poor people who go with their pots. But at least now after so much pressure Vajpayee Nagar gets water.

What is interesting here is not only the value Agnes attaches to “working together as a group” as well as the manner in which she insists on differentiating herself from “the poor people who go with their pots”⁵⁰, but also her persistence and confidence in confronting municipal officials. To be able to stand her ground on routine phone calls and visits, she now keeps an account on her living room wall of the municipality’s monthly expenditures and marks water tanker delivery on her calendar. “You need a school teacher to go behind every CMC administrator”, her son mused to me as we pored over his mother’s meticulous records together, “I think they are scared of my mother now!” What I found therefore through speaking with Agnes’ is that her loose affiliation with DYFI seems to have emboldened her to engage in various tactics of pressure, including public protests, everyday confrontation, and budgetary record keeping—a more “civilized” approach in her arsenal of insurgent citizenship strategies (Holston 2008) These in turn have resulted in a few victories and some minimum degree of state responsiveness over time.

Finally, and relatedly, there is one other aspect of accountability that is crucial here, one that is, again, overlooked by the institutionalization of e-grievance redress: its *performativity*. The insurgent practices of individuals such as Lakshman Kumar and Agnes Perriera depend not on fixed positionalities in which they are always in confrontation with the state, but on their ability to position themselves within a multifaceted, constantly malleable environment. Much like the fluid positionalities of “mafia” and “social worker” I discussed in Chapter 2, I found that members of the peripheralized middle class exhibit such fluidity with respect to their political strategies. Sometimes they engage in the more unruly acts of protesting and locking up the municipal building, while at others, they assume the more orderly positionalities embedded in “civil society”. Likewise, the state itself engages in an on-going performance and spectacle to affirm its authority and legitimacy. It is these enactments and reenactments, ultimately, that create the very materiality of accountability and its cultural significance. I discuss this performative aspect in more detail through the example of the site inspection visit next.

⁵⁰ I discuss the class subjectivities of the peripheralized middle class in greater detail in Chapter 6.

The performativity of accountability: Site inspection as state spectacle

At around 9 am one morning in late June 2007, my assistant Vinodha and I arrived at DYFI's local office in Garvebhavipalya, ward 9 of Bommanahalli. The office, a makeshift tin shed tucked behind a neon pink apartment building, was surrounded by unauthorized revenue layouts so typical of Bangalore's urban fringe, as discussed in Chapter 2. Since I was early for the scheduled event, I stepped inside DYFI's office to scan the photos on the wall documenting evidence of its victories during its short history in the area. There were photographs of DYFI providing relief to flood victims, of new borewells in the area, and of community-wide meetings. Lakshman Kumar had already arrived and was busy hanging up a CITU labor union flag (Figure 23). He was preparing for the "site inspection visit" of the joint commissioner of Bommanahalli, Venkata Ramana Naik. Today was the day that the commissioner and his engineers had agreed—under pressure from DYFI members and Bommanahalli's residents the previous day—to conduct an "inspection visit" of some of the area's most poorly serviced wards (i.e. wards 9-11). What problems did the wards suffer from? What were the complaints of those who lived there? What needed to be done in these areas? These were questions that could only be answered through first-hand observations, Lakshman Kumar had argued to the commissioner. The commissioner had finally agreed to visit the area the next day with his engineers and listen to people's grievances in person.

Figure 23. DYFI setting up for the site inspection visit



An hour after I got there, the joint commissioner pulled up in a white Ambassador car bearing the official Karnataka state emblem (Figure 24). Out jumped the commissioner, accompanied by Assistant Executive Engineer Srinivas, Assistant Engineer Rajanna, and the road contractor responsible for the area. The team had been carefully assembled: together, these frontline bureaucrats oversaw some of the most pressing issues in the area—drinking water, sanitary drains, and roads—and the three that had been discussed at the meeting the previous day at the commissioner's office. By bringing the contractor along with them, the engineers wanted to demonstrate that they did wield some authority over him. As I described above, the contractor

is the “last mile” in the service delivery chain; his presence during this particular public event added a certain degree of legitimacy to the officials’ own.

By the time the team arrived, at least 40 people had gathered around. Word had spread quickly throughout the neighborhood about the opportunity for a face-to-face confrontation with municipal officials. Lakshman Kumar greeted the officers warmly and deliberately, shaking hands with each in turn and thanking them for visiting an area where “you see, people have lost almost all hope”. He went on: “As DYFI members, sir, it is our duty to show you how the people are suffering. *Illi jannagalige road beekoo, neeru beekoo, drain beekoo* [Here, people need roads, they need water, they need drains]. When it rains here, this area gets completely inundated”. Lakshman Kumar spoke in polite Kannada, but occasionally peppered his sentences with English words, perhaps to demonstrate his education and position of authority.

Figure 24. The joint commissioner and his engineers arrive



The group of bureaucrats and local residents began to tour the neighborhood. Vinodha and I followed behind, striking up a conversation with others who joined the group at the back of the brigade. No sooner had we started when a group of distressed women surrounded the commissioner and his engineers. Two women, Vinaya and Nirmala, whom I spoke with separately later, spoke up (Figure 25):

There is no drinking water in our area! The CMC borewell is supposed to supply this area, but it doesn’t work. On this road, not even one tanker comes. What are we supposed to do? How many times are you going to come and visit? And how long will we live without water, without any drains? We’ve been living here for three years without anything. So many problems we face with drinking water [*kudiokke neeru tumba kasta*]! We’re not asking for water for washing clothes or for cleaning our houses. Not even for bathing! All we’re asking is for drinking water.

Figure 25. The commissioner listens to grievances



Note: Vinaya can be seen facing back in the picture on the left and pointing in the picture on the right. In the picture on the left, the commissioner is facing forward while Rajanna, the assistant engineer takes notes and Lakshman Kumar listens on to the far left.

Figure 26. The assistant engineer takes notes on grievances



Lakshman Kumar immediately stepped into the role of a patriarch, assuaging the women and urging them to speak in a soft tone: “*nidhanavagi heeli*”, he said invoking the refrain that the assistant executive engineer Srinivas had previously used. He no longer seemed to want to be confrontational towards the functionaries, but rather was performing a different role; now he seemed to be part of the group of officers itself, exchanging in small talk with them and assuming a similar kind of pomp, tone of voice, and demeanor. I could only assume that this was deliberate: Kumar wanted to establish a congenial rapport with the officers, while also coming across as important and in control of the situation to on-lookers. It would not have served him—

nor his platform—well to join the women in their tirade. It is perhaps thus that Ash Amin and Stephen Graham (1997: 420) conceive of human agency in the contemporary city as a set of continuous “*performative*” actions that are fundamentally heterogeneous and impossible to generalize” (emphasis added). Citizenship, then, is not be a fixed positionality based solely on contestations with the state, but rather an identity created by interactions in multiple fields (Pine 2010: 1104). Kumar’s multiply embedded positionalities meant that he had to perform to different scripts according to the need of the hour—performances that are constitutive, in fact, of his insurgent politics. Despite Kumar’s injunction to “speak softly”, however, the women continued to hurl complaints at the bureaucrats, lambasting them for the severe neglect they felt their area suffered from. The commissioner listened patiently and proceeded to officiously order his engineers to look into borewell maintenance and tanker contracts for the area. In response, they scribbled something down furiously, drew a rough sketch of the area pinpointing trouble spots, and continued with their tour (Figure 26).

And so as the inspection visit progressed, it dawned on me that there was something distinctly performative not only about Kumar, but more generally the interactions between the state and citizens. The car the officials drove up in, the assiduous note taking, the demeanor with which state officials addressed citizens, the interlocutor and patronizing role that Lakshman Kumar had now assumed despite his organization’s otherwise confrontational stance, even the run-in with the distressed women—all these aspects were reminiscent of what Amin and Graham (1997: 420) call the “complex performative arena” of the modern city. I realized, moreover, that the complex performative arena of the site inspection visit is *fundamental* to state making. What I was witnessing was nothing short of what Thomas Blom Hansen and Finn Stepputat call a “state spectacle” (Hansen and Stepputat 2001: 37). More specifically, they argue:

...we should perhaps regard the rhetoric of state officials, the grand schemes and organizational efforts of governments, with all their paraphernalia of vehicles, titles, and little rituals, as parts of a continuous state spectacle asserting and affirming the authority of the state. These spectacles only occasionally succeed in producing the specific social effects they aim at, but always reproduce the imagination of the state as the great enframer of our lives (ibid).

While not referencing Timothy Mitchell directly, Hansen and Stepputat’s (ibid) use of the word “enframe” is fascinating here. It would be useful to stop a moment and ask what the e-grievance system “enframes” versus what state spectacles might “enframe” and the implications therein. Both approaches render particular exclusions and silences, but whereas the e-grievance system relies on abstract indicators of grievances about the public services, and neglects the terrain of collective struggle involved in negotiating them, state spectacles and group confrontations put into sharp relief such struggles and the negotiated relationship between citizens and the state. Recognizing the sway that state spectacles hold on the reproduction of state legitimacy and authority, moreover, has profound consequences for our understanding of public accountability. When the communication of grievances is itself turned into a spectacle—a spectacle in which discourses of officials can be scrutinized by a wider public, contractors can be hauled up on the spot in front of people, and organizers like Lakshman Kumar can navigate his multiple positionalities—it is likely to elicit greater responsiveness than an impersonal helpdesk, which in reality, left to its own devices has little leverage today over service delivery. When I followed up

with Lakshman Kumar a few days later, I learned that shortly after the inspection visit, municipal workers had unclogged drains and cleared garbage, and tankers were now plying the streets more regularly to provide drinking water. Such successes are not often observed; as Hansen and Stepputat (ibid) comment, state spectacles “only occasionally succeed in producing the specific social effects they aim at”. Nevertheless, this example stresses that we must take seriously the performative arenas in which accountability is enacted rather than seeking to undermine them through sanitized and “internationally mobile” (Gupta 2005) constructs of good governance.

Contractualizing accountability

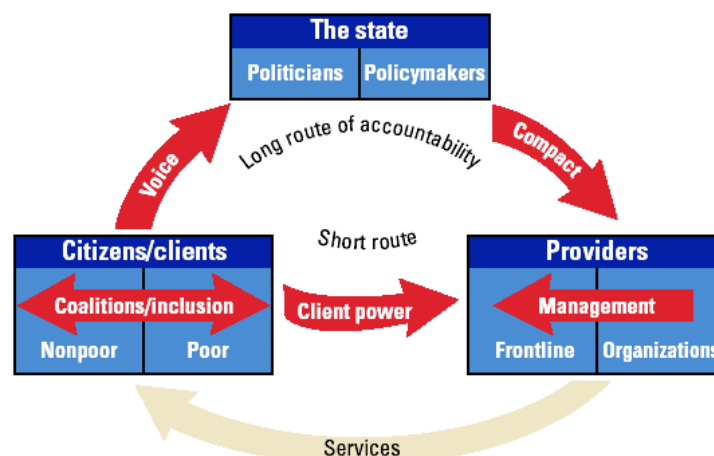
I now return to the e-grievance system, turning my gaze to the “redressal” end of the technology and its claims to improving the “transparency and accountability of the municipal staffs”. If, as we have just seen, the e-grievance system enframes only a sub-set of individually communicated grievances, and if, as we have also just seen, the “old” system of collectively voicing grievances and routing them through councilors continues to prevail because of its symbolic, cultural, and material value, then what do such official claims to accountability really mean? Let us begin by tracing the journey of a complaint filed through the e-grievance system.

After a complaint is filed, the complainant is provided with a tracking number that he or she can use to follow-up, and the complaint is routed through a phone call, text messaging, or email to the concerned engineer or public official. In turn, the concerned official must resolve the problem within a stipulated timeframe and input the status of the problem (“pending” or “resolved”) directly into the online database or via the helpdesk. Complaints pertaining to different services are allotted different time frames in which they must be resolved: those categorized as “immediate” must be resolved within 24 hours; “priority” complaints must be resolved within seven days; and “normal” complaints have up to 30 days. Typically, water-related complaints must be resolved in 24 hours. Now, if the problem is not resolved in time, it automatically “gets escalated to the higher level officer” (CMAK 2009: 5). That is, depending on the prevailing local government hierarchy, complaints that are supposed to be handled only by assistant engineers are subsequently transferred to executive engineers and/or the commissioner of the municipality in the event that the subordinate is unable to or unwilling to handle the complaint. The greater the number of unresolved complaints, or the longer the average time in resolving complaints, the greater the potential disciplinary sanctions on frontline functionaries. Conversely, as I learned in a personal interview with the head of the Municipal Reforms Cell of the DMA, high-performing engineers can earn points and rewards for their speediness and the total number of complaints they redress in a month. In one municipality, in fact, a cash award is announced to reward the top three field engineers based on the average time they take to redress grievances and their total points earned. Such an incentive is believed to “motivate the employees to work better” (CMAK 2006: 14).

As discussed, these governmentalities are claimed to be a marked improvement over the messiness and personal discretion afforded by the “old” system in which “there was absolutely no mechanism to track the status of [a] complaint for citizens or even in some cases [for] ULB officials, which resulted in the deterioration of credibility of the municipality” (KUIDFC 2007: Annexure 5). Indeed, there is much that is rationally appealing about the “new”, e-grievance system, especially within the framework of customer satisfaction. As a contract between “client” and “service provider” that dictates a maximum time limit within which grievances must be

resolved and in turn rewards performance, e-grievance redressal clearly resonates with what the World Bank's World Development Report (2004) has called the "short route" to accountability, also referred to therein as "client power" (Figure 27).⁵¹ According to this now popular narrative, the so-called "short route" to accountability can be contrasted with the "long route" to accountability. While in the "long route", clients exert influence on service providers indirectly, by electing policy-makers ("voice") and in turn, by policy-makers influencing the behavior of providers ("compact"), in the "short route" clients influence service providers directly through purchasing power, by exerting their right to choose, and by monitoring providers' performance. "Given the weaknesses in the long route to accountability" and the propensity for "clientelist relations" between politicians and citizens, the World Bank (2004b: 6) report maintains that "service outcomes can be improved by strengthening the short route—by increasing the client's power over providers"—and by enhancing voice "beyond the ballot box". Information technology is considered to be an important new enabling tool in this pursuit.

Figure 27. The World Bank's accountability framework



Source: World Bank (2004)

Such contractualized relations of accountability, Rose (1999) suggests, has typically followed the erosion of the welfare state in advanced liberal democracies. That is, neoliberal governments no longer consider citizens as passive recipients of welfare and entitlements, but call on them to play a more proactive role in the services they obtain through established contracts between individual "client" and "service provider". Importantly for Rose (1999: 165), "whereas social rule was characterized by discretionary authority, advanced liberal rule is characterized by the politics of the contract", which "shift the power relations inscribed in relations of expertise...especially...when they are accompanied by new methods of regulation and control such as audit and evaluation". With its paraphernalia of contractual arrangements, audit technologies, and performance reports, e-grievance redressal thus holds much appeal within internationally mobile narratives about good governance and accountability. It no doubt also enables new sorts of "power relations inscribed in relations of expertise" (ibid). But the

⁵¹ See the World Bank's WSP (2007) report for a discussion of how online complaint management systems enhance "client power".

particular post-colonial urban context of Bangalore also means that modalities and outcomes are quite different from those in the advanced liberal democracies that Rose makes reference to.

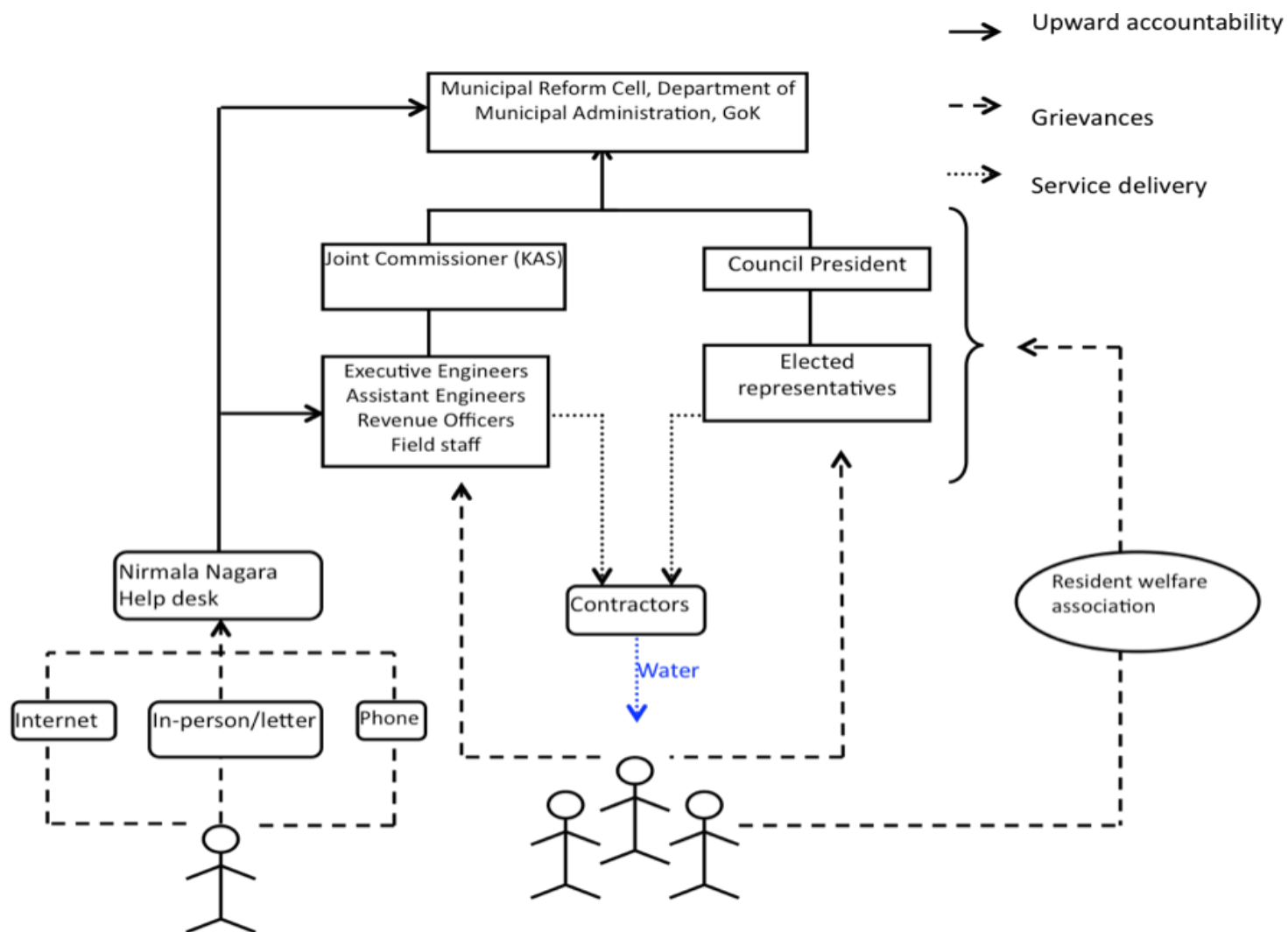
As my fieldwork in Bommanahalli revealed, e-grievance redressal is actually far removed from the life-worlds of engineers like Srinivas who must confront groups of distressed residents from unauthorized layouts complaining about water supply, flooding, or blocked drains on a daily basis. While group-oriented complaints, site inspection visits, and other types of face-to-face quotidian encounters with the state occasionally do serve to elicit responsiveness from service contractors while also serving to reinforce state legitimacy, left to its own devices e-grievance redressal has much less sway over local responsiveness. This is largely because, as Figure 28 shows, there is little interface between the e-grievance system and elected representatives who are perhaps *the* most vital link in bringing about contractor accountability, as several lengthy discussions with Bangalore-based municipal budgets expert Sharadini Rath also bore out. In 25 random phone calls I made to residents who visited the helpdesk to file grievances, I found that complaints were resolved in less than half the cases, and that too, only after multiple visits to the helpdesk and/or directly to engineers' offices. Yet—and here is where Rose's "politics of the contract" *do* come into play—as can be seen from Figure 28, the aggregate e-grievance data and its statistically skewed reports are *amply* available to higher echelons of the state urban development department for "performance monitoring" of local municipal staff. What seems to be happening here is not that accountability is being enhanced based on a contract between citizens and the local government providers *per se*, but, rather, the e-grievance system and its statistically enframing are cementing a set of contractual relations between local government and higher echelons of the state apparatus.

I address the broader political-economic context of these inter-state power dynamics in Chapter 4, but consider some of the governmentalities at play here: the DMA consistently monitors the status of the e-grievance system, measures the "efficiency of the redressal of grievances" and accordingly ranks cities in order of worst to best via a scorecard system. The data on e-grievances is also currently being fed into a larger benchmarking exercise to audit urban services and municipal finances throughout Karnataka—an exercise in which credit rating agencies and other financial intermediaries are also participating. Such a performance assessment is then used as a basis to further design "corrective measures" (KUIDFC 2004: 58)—in other words, an ever-increasing battery of financial and managerial reforms to induce upward accountability. It should be remembered that performance assessments like benchmarking, more generally, have been shown to play a key role in "constituting new places of capital and labor in new places of competition" as Lerner and Walters' (2004: 213) study of New Zealand shows. Given the fiercely competitive climate in which cities like Bangalore find themselves in as discussed in the opening of this chapter, the embrace of benchmarking practices is not all that surprising.

What is disturbing about the endorsement of e-grievance redressal is that, given that the e-grievance reports are currently likely to be "inaccurate and potentially biased" since "parallel flows of information are not being captured in the public grievance redressal module" (Wallack and Nadhamuni 2008: 12), there are serious implications to this upwardly driven "accountability". If municipal engineers now have to prioritize complaints received through e-grievance redressal since this is the basis upon which their performance is judged, then those complaints received through parallel routes (for instance, women complaining in groups) are not

likely to be taken as seriously. Moreover, if budgetary allocations and work plans are decided on the basis of e-grievance data, it is likely that particular types of infrastructure needs will be prioritized over those reported through collective complaints. It is foreseeable that responding to collective, spontaneous, and ad-hoc complaining may be increasingly marginalized in favor of responding to complaints recorded in the database. In other words, since municipal engineers are being held “accountable” to the data reported in the e-grievance redressal system and are being rewarded or penalized based on this data frame, the finding that group complaints are rendered invisible by the e-grievance system is all the more serious.

Figure 28. Multiple accountability routes



3.5. Scaling Up Techno-managerialism

Despite these concerns and based on little grounded evaluation, the e-grievance redressal system and the scorecard ranking instituted via Nirmala Nagara were hailed as “best practices” (KUIDFC 2007). Such unqualified discourses are, in turn, used to justify rollout. This rollout occurred first, via the Karnataka Municipal Reforms Project loan financed by the World Bank (World Bank 2006) and second via a state-wide city benchmarking initiative (DMA & CMAK 2009). Under the former, all 200 cities in Karnataka are in the process of implementing e-grievance redressal systems. The data generated therein will be used as part of a statewide performance evaluation of cities based on six basic services and a set of financial indicators—totaling some 42 indicators in all.⁵² The “efficiency in redressal of customer complaints” is an indicator that finds its way into all sectors being benchmarked (ibid). Already, drawing from a preliminary sample of seven, cities in the state are being compared to one another and ranked based on such questionable data: “Karnataka is the first to develop this system. Even the government of India has taken this as a model,” a senior CMAK official beamed in a recent newspaper article (ToI 2010). The article continues: “As per the Karnataka Urban Service Level Benchmarking Report 2008-09, Hubli-Dharwad was ranked No. 1 with a total score of 272. While Hubli-Dharwad scored highest in municipal finance with 65, Mysore scored highest in water supply management with 78” (ibid).

Crucial here are not the rankings themselves which in fact make little sense, but that 100% cost recovery, 90% efficiency in the collection of user charges in the current year, and 100% efficiency in the collection of arrears are all critical benchmarks to aspire to in water supply. What we see, then, is the bundling and assembling together of seemingly uncontroversial and banal indicators such as grievance redressal efficiency with far more politically volatile and contentious benchmarks such as 100% cost recovery in the water sector—a target that *even* conservative international water economists have yet to agree upon for cities with a poorer socio-economic clientele. Given prevailing public resistance to full-cost pricing in water, it is far more effective to slip this policy in as an uncontroversial and “scientific” target in mundane benchmarking exercises, rather than suffer probable backlash following a public policy statement or an official government order.

As discussed above, for governmentality scholars, seemingly scientific practices such as audits, ratings, and benchmarking in government institutions are inseparable from the consolidation of market rule associated with a neoliberal order of things. Contrary to the language of objectivity and impartiality that they convey, these technologies of government and their calculative rationalities are not just neutral means to an end but rather, as MacKinnon (2000: 298) finds in his study of local government auditing in the UK, have been harnessed into a specifically conservative political project—“designed to smash any alternative power bases within the local state.” Two serious implications are visible in the Indian context so far. First, in light of fewer public resource transfers available to cities (discussed in Chapter 4), benchmarking encourages institutional Darwinism wherein cities struggle to outperform one another to

⁵² In a classic Latourian move, yet another centralized entity—the Karnataka Municipal Data Society—was established by the Municipal Reforms Cell of the DMA in the last year to process this new benchmarking program; for Bruno Latour, this would comprise a “center of calculation” par excellence (Latour 1987).

maintain funding shares. Already, research has shown that, quite perversely, cities in India with higher credit ratings have received a much *larger* share of funds for urban renewal from the center—despite statements claiming a more scientific basis for intergovernmental resource transfers. Those that have received the fewest funds so far were also cities with the lowest per capita income in the country (Pradhan 2008). Second, much like in England and Wales, the deployment of neoliberal governmentalities in Karnataka has entailed a characteristic and contradictory double move. The supposed autonomy afforded to local governments via decentralization reforms has been accompanied by the enhanced reach of centralized authorities in monitoring and steering the activities of local institutions. This double move has been particularly marked in the case of reforms related to urban water financing—reforms that are deeply connected to the techno-managerial strategies and their rollout described here. This, then, is my primary preoccupation in Chapter 4.

3.6. Conclusion

There is no doubt that the outskirts of most rapidly urbanizing cities like Bangalore today are plagued by severely malfunctioning systems of service delivery. The historic legacy of multiple land tenure regimes—each characterized by a different degree of legality and “plannedness”, recent political-economic shifts reducing budgetary transfers to the local level, and patronage relations between service contractors and local government have all contributed to this situation. There is also little doubt that robust, responsive, and confidence-inspiring public bureaucracies and elected representatives are the need of the hour to ameliorate basic conditions of urban livability. What is not clear, however, is the extent to which an almost exclusive emphasis on technicized and contractualized frameworks for accountability and transparency in the context of “good governance” reforms is actually enhancing the responsiveness of local government to citizens. Rather than be beholden to universalizing, de-contextualized, market-derived constructs of accountability (e.g. “client power”), this chapter challenges us to revalue locally embedded meanings of corruption/accountability—those that hold import in the everyday lives of people—if we are to apprehend what drives state institutions to be responsive.

The ethnography showed that while the “old” system of voicing complaints collectively—either through spontaneous delegations, protest strategies, or via organized inspection visits—certainly suffers from its own inefficiencies and exclusions, the symbolic and performative value of face-to-face confrontations with the state should not be underestimated. This is particularly true in post-colonial contexts where claims on the state are often made on behalf of group solidarities rather than on the basis of individual client needs. Recognizing the role that these interactions have for the continuous performance of state legitimacy and authority, moreover, has profound consequences for our understanding of public accountability. The chapter showed that it is ultimately these enactments and reenactments that create the very materiality of accountability. Understanding these performative dynamics and the affective relations between citizens and the state also helps us to grasp the insurgent citizenship practices and nature of political agency of the peripheralized middle class. It is crucial that we unpack the politics of the peripheralized middle class since this is a demographic that inhabits settlements increasingly targeted for neoliberal reform.

While the political strategies of the peripheralized middle class have the potential to yield accountability because they leverage elected representatives and deploy affective relations between citizens and the state, the “new” e-grievance system of routing complaints circumvents political participation. This is a serious flaw since contractor accountability is dependent on oversight by elected representatives. Although highly appealing within a framework of customer satisfaction, the impersonal e-grievance system lacks these essential stimulators of downward accountability. Instead, based on the partial picture of grievances that it enframes, the system introduces new avenues for senior bureaucrats to surveil and monitor local government employees. The data on the number of grievances made and proportion responded to—considered representative of the state of municipal services—are routinely forwarded to superiors in the state government in order to rank municipalities and reward performance. What we are seeing, then, is that technologies of reform are used to preserve relations of upward accountability to a much greater extent than relations of downward accountability, unlike what is claimed by reform proponents. This is a broader trend to which I turn next.

CHAPTER 4

Banking on Water: Debt, Discipline, and the Financialization of Policy Expertise

4.1. Introduction: On “the transformation of all relations into money relations”

As institutional techno-fixes promising greater accountability and transparency have found their way into every state and national urban reforms agenda in India, so too have approaches centered on financially evaluating and disciplining cities and their water sectors. Increasingly, cities are required to borrow from the market rather than rely on more traditional government transfers and subsidies to finance new infrastructure investments. Borrowing from the market, however, carries with it stringent repayment clauses and mechanisms to divert municipal cash flows towards repayment. It also necessarily opens up cities to new forms of financial scrutiny.

By 2008, over Rs. 13 billion (~\$290 million)⁵³ worth of municipal bonds—contracts in which an investor (e.g. a bank) agrees to lend money to a city government and later redeems the loan with interest—had been mobilized across some 40 cities in India (Vaidya and Vaidya 2008). Along with Mexico and South Africa, India now has one of the largest markets for sub-sovereign bonds among developing countries (Platz 2009). Importantly, water and sanitation projects account for nearly all municipal bonds issued to date in the country (Vaidya and Vaidya 2008). How are we to understand the emergence of this financial regime targeting urban water in the country today and the constitution of particular forms of fiscal and financial authority in the water sector (cf. Roitman 2005)?

In this chapter and the next, I investigate what I argue to be the creeping *financialization* of urban water policy and policy-making expertise in India. The term “financialization”, Pike and Pollard (2010: 30) suggest, is “shorthand for the growing influence of capital markets⁵⁴, their intermediaries, and processes in contemporary economic and political life.” An increasingly prevalent phenomenon, financialization—and its associated metrics, practices, and brokers—extends from the personal decisions we make about mortgages and pension funds, to public infrastructure and services, to derivatives for energy products and even the weather. Indeed, given how common financial criteria are now in “daily life” (cf Martin 2002), we need “a better understanding of the machinations of financial actors and intermediaries that are reshaping the landscapes of contemporary capitalism” (Pike and Pollard 2010: 30). In this vein, Nathan Sayre (2008) has recently pointed out the role that critical ethnography can play in grappling with the

⁵³ To put this in perspective, nearly twice this amount is raised for municipal bonds in one year in the US (Platz 2009: 3).

⁵⁴ A capital market is a market for securities (debt or equity), where businesses and governments can raise long-term funds. The capital market includes the stock market (for equity securities) and the bond market (for debt).

“financialization of everything”, what Marx perhaps forewarned in *Grundrisse* as the “transformation of all relations into money relations”.⁵⁵ If, as David Harvey (2005) contends, financialization is a defining characteristic of the contemporary neoliberal moment, we need to be attentive to its diverse modalities, orchestrators, and uneven outcomes.

While Chapter 5 studies the workings and effects of one “bankable” (commercially viable) bond-financed water project in Greater Bangalore, in this chapter I shed light on the political-economic conjuncture and epistemological shift that gave rise to the financialization of the water sector in Karnataka in the 1990s. This is not to put forth an economic reductionism, wherein the transformation of water supply can simply be read off of macroeconomic change during that period. Rather, as critical urban research has revealed, key elements of the current water policy agenda can be located within a wider historical-geographical and political landscape (Gandy 1997). I also show in this chapter how pivotal one parastatal intermediary born in the mid-1990s, the Karnataka Urban Infrastructure Development Finance Corporation (KUIDFC), in concert with bureaucratic allies at the DMA and actors in international agencies, has been in setting the current water policy agenda. Karnataka is not the only state experimenting with such an innovative financing intermediary; Andhra Pradesh and Tamil Nadu have also both successfully set up parallel organizations to facilitate private sector participation, support technomanagerial reforms, and help cities access the capital market.⁵⁶ An examination of this entity thus holds salience for our understanding institutional trends in India’s cities more generally. Given how significantly these institutions and actors are reshaping the urban policy landscape, it is imperative that we situate their emergence and take a closer look at their internal workings.

The analysis here contributes to a larger conversation in the literature concerned with the political economy and institutional reorganization underlying urban water reforms. Political ecologists and critical geographers more generally have produced a significant volume of literature on what has been referred to as the “neoliberalization of nature” (cf Prudham and McCarthy 2004), of which studies on urban water reforms comprise a good portion (e.g. Bakker 2005; Loftus 2006; McDonald and Pape 2002; Sangameswaran 2009; Smith 2004; Swyngedouw 2004). The South African experience is well represented in this collection and not without important reason. The transition to full cost recovery in South Africa’s enduringly racialized landscape—despite the post-apartheid constitutional emphasis on water and electricity as a human right—has been deeply contentious. With widespread cut-offs, cholera outbreaks, and social unrest in the wake of market-oriented policies, critical analysis of the South African case has bolstered our theoretical and empirical understanding of the modalities and potential distributional consequences of water sector reform. Studies on India have similarly shown that although there are possible gains from cost recovery policies and water privatization, most

⁵⁵ The full passage is: “(To be further developed, the influence of the transformation of all relations into money relations: taxes in kind into money taxes, rent in kind into money rent, military service into mercenary troops, all personal services in general into money services, of patriarchal, slave, serf and guild labor into pure wage labor)”, cited in Sayre (2008: 915). Sayre (2008: 914) argues that the English translation of *Grundrisse* in 1973 profoundly influenced a convergence on theory and method in geography and anthropology, particularly with respect to the emphasis on the complex and variegated dynamics of commodification and marketization.

⁵⁶ See: <http://www.apufidc.gov.in/> and <http://www.tnudf.com/tnudf.asp>.

efforts to date have been met with strong resistance, including on grounds of inequitable outcomes and lack of transparency in the negotiation of contracts (McKenzie and Ray 2009; Sangameswaran 2009; Sangameswaran et al. 2008).⁵⁷

However, while these and other cases are useful in illuminating the manifestations and ramifications of reform, with few exceptions, the existing body of research has had less to say about *the reformers themselves*. We hear of technically oriented water managers, engineers, consultants, international financiers, and corporations, but for the most part, these appear as faceless, narrow-minded agents. That is, most empirical studies focus on the subjects and actual (or anticipated) outcomes of reform rather than on the decision-makers and machinations behind those projects themselves. Since one of the “analytical cores” (Zimmerer and Bassett 2003: 1) of political ecology is the study of relations of power at multiple scales, this silence is surprising. Taking a queue from recent anthropology literature, then, my goal here is to “complicate the position of the trustee” (Li 2007)—to bring to light the dreams, machinations, and often contradictory positioning of those who influence policy; in this case, the financial experts steering Karnataka’s urban water sector.

In identifying financialization as a specific phenomenon in urban water supply, I thereby respond to calls to diversify our knowledge of reforms. Indeed, infrastructural reforms can take multiple pathways—principally categorized as privatization, commercialization, and commodification—and it is important not to conflate these processes (Bakker 2005). While *privatization* entails a change of ownership or a transfer of management from the public to the private sector⁵⁸; *commercialization* involves changes in institutional management structure (e.g. corporatization), methods of management (e.g. full cost pricing or market-based financing), and organizational objectives and principles (e.g. profit maximization). By contrast, *commodification* implies the redefinition of water as a tradable good, enabling it to be sold through market exchange (as in a market for water rights). Importantly, commercialization can occur *without* privatization, as has been the case so far in Bangalore, although the latter has not been fully ruled out. Here, I consider *financialization*—the growing role of capital markets, financial indicators, and financial intermediaries in decision-making in the water sector—as one form of commercialization. To date, critical scholarly work has largely centered on questions of privatization and commodification to the exclusion of other types of important shifts occurring in the water sector, which can often be more insidious and less visible to the public eye (Sangameswaran 2009).

In what follows, I focus first in Section 4.2, on a conjunctural moment characterized as a fiscal “crisis” that precipitated financialization; in Section 4.3, on what this has meant concretely

⁵⁷ See Appendix C for a table summarizing major types of urban water reform efforts undertaken in India to date and references in the academic literature.

⁵⁸ There are several different types of privatization. With *management and service contracts* (the most common form in India), one or more tasks (e.g. billing and collections) are handed over to a private firm, while ownership, the responsibility for new investments, and commercial risk continue to lie in the public domain. In *concession* arrangements, the responsibility for investment and distribution is handed over to a private company for 20-30 years. Finally, *divestiture* implies the complete handing over of water assets to a private company.

for the water sector; and in Section 4.4 on the new financial movers and shakers in Karnataka's urban water sector.

4.2. Mapping the Conjunctural

Crisis and the shift in inter-governmental fiscal relations

Several scholars have usefully deployed the Marxian philosopher Antonio Gramsci's (2000 [1971]) notion of the "terrain of the conjunctural" to understand political-economic transformation at a specific historical moment. In an effort to come to terms with the collapse of Europe's economy after the First World War, a reinstatement of capitalist relations, and the failure of the revolutionary project in the face of the rise of organized fascism in Italy in the 1920s, Gramsci conceptualized the "terrain of the conjunctural" as the point at which crises are immanent and ideological struggles are fought out. As Stuart Hall (1987: 17) puts it, Gramsci was interested in how different forces come together contingently "to create the new terrain, on which a different politics must form up"—a politics which asserts itself as the only commonsensical alternative to the prevailing order. It is at this point, as Hart (2004: 96) says, "where alternative trajectories are always possible, but never pre-ordained" and where certain development regimes are made hegemonic while subjugating and silencing others (Goldman 2005).

The fiscal debacle of the late 1990s that unfolded across several states across India, Karnataka included, and ensuing neoliberal interventions and institutional innovations at the municipal level emphasizing "resource mobilization" can be thought of as one such conjunctural moment. Three main shifts came together during this period: changing inter-governmental fiscal relations, a reorientation of public expenditures, and a new emphasis on sub-sovereign conditional lending by international agencies. Despite contemporaneous calls for political decentralization and democratic decision-making in urban local bodies (ULBs) in the 1990s, the manner in which the fiscal crisis was ultimately resolved reconstituted remarkably centralized forms of authority. Yet, it is important to keep in mind that these rescaled forms of authority cannot necessarily be located in "the state". As I discuss below, the constitution of KUIDFC as an entity that is simultaneously part of and distanced from the state—one that can wield "the might of government" yet reaches across corporate and business spaces to influence policy—poses theoretical challenges to how we spatialize the state (cf. Ferguson and Gupta 2002).

As the case elsewhere, the trope of an impending "crisis", backed by alarming fiscal and balance-of-payments calculations, preempted macroeconomic adjustment in India at the national level. By the end of the 1980s, the national deficit accounted for 10% of national income, and by 1991, the central government found itself with enough foreign exchange to cover only two weeks worth of imports (Khilnani 1999: 94). The fact that cheap loans had dried up as the international lending climate had shifted, combined with a downward turn in India's terms of trade following the fall of the Soviet Bloc and the Gulf War which caused oil prices to skyrocket, prompted the country's leaders to return to the International Monetary Fund (IMF) to seek financial assistance in 1991. Although it had previously received assistance from this agency a decade earlier, this time, IMF assistance came with deeper market-oriented reform conditionalities. Under then

finance minister Dr Manmohan Singh, India embarked on a gradual, but substantive path of reform—often gaining and losing momentum in fits and starts. In the main, the agenda involved currency devaluation, a dismantling of state controls and support to certain sectors, privatization of public sector enterprises, trade liberalization, and financial sector deregulation (Jenkins 1999).

It would be a misconception, however, to claim that liberalization was driven solely by external mandates. By the early 1990s, a critical mass of conservative economists, Singh included, had cycled through the revolving doors of the Bretton Woods institutions, and had come to occupy the senior ranks of government. World Bank officials, together with senior Indian bureaucrats and political leaders, then, shared a broad ideological consensus on the need for adjustment and austerity; the sequencing and extent of macroeconomic reforms, moreover, was very much homegrown.

An important ripple effect of macroeconomic adjustment was a shift in both the quantum and logic underlying fiscal transfers to states, and in turn, resources available to cities. Although the details are beyond the scope of this chapter, India's system of fiscal federalism—the vertical devolution of central government resources to individual states and cities to support local development—has historically been, as Kirk (2010: 57) puts it, an “inherently political regime”. On average, central government transfers finance more than half of state expenditures. Formulas undergirding the three main modes of transfer from the union government to states (via the planning commission, finance commission, and centrally sponsored schemes) are opaque to say the least.⁵⁹ Although transfers were ostensibly designed to promote balanced regional development, partisan ties between center and state governments, particularly under a scenario of coalition politics, often accounted for a disproportionate share of devolutions to certain states. Moreover, states frequently relied on central government bailouts to bridge their deficits—what the public finance world terms “soft-budget constraints”.

With the onset of fiscal rectitude policies at the center, however, discretionary intergovernmental fiscal relations began to give way to performance-based and conditional transfers in the 1990s (see Bagchi 2003: Table 2). Then cabinet minister for finance, P Chidambaram, and his fellow reformists held that in order to consolidate the gains of macroeconomic liberalization, it was up to states to implement a so-called “second generation” of reforms—those focused on “getting the institutions right”. To this end, “India would have to transfer its fiscal federalism from a labyrinth of soft-budget constraints, perverse incentives, and favored resource access for politically-connected states into a more rule-bound and performance-based allocation” (Kirk 2010: 58) that would incentivize second-generation reforms. This meant that not only were fewer resources flowing to states as a proportion of total central government revenues by the end of the 1990s—only 29% of central government revenues accounted for transfers to states in 1998-99 as compared to 46% in 1980-81 (Anand et al. 2001: 27)—available resources, particularly for cities, were also increasingly tied to both internally, and subsequently, externally mandated reform conditionalities. As Baindur and Kamath (2009) note, from the 1990s onwards, consecutive Five Year Plans and Finance Commission reports (the instruments behind the transfers) have recommended building cost recovery into municipal finance and reducing sovereign guarantees and allocations for urban infrastructure. To fill the resulting

⁵⁹ Planning commission devolutions are laid out in periodic Five Year Plans and Finance Commission devolutions occur yearly.

resource gap, municipalities are now urged to borrow from the market. In addition, a number of centrally managed schemes now tie funding to specific reform conditionalities. The most recent of these schemes is the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), a program which repackages and rescales a precursor program that was also conditional in nature: the Urban Reforms Incentive Fund.

As financial flows from the center to states diminished *and* became more rule-bound post-1991, Karnataka also found itself in a worsening fiscal situation. To be sure, a steady deterioration of its budgetary resources can be traced to the accommodative style of politics practiced by successive coalition governments from the 1980s onwards. From this period, coalition arrangements largely between the Congress Party, Janata Dal (S), and a more recent entrant, the Bharatiya Janatha Party (BJP), rotated into power at the state level, often with very short tenures. Why Karnataka has a predilection for such unstable coalition politics—particularly from the 1980s onwards—lies in its specific history of post-colonial caste politics explored in depth by the political scientist James Manor (1989). In brief, the three decade-long hold that the Congress Party had on Karnataka following independence in 1947⁶⁰ was finally broken when Indira Gandhi was ousted from the center in 1977 following wide-spread dissatisfaction with her authoritarian regime. In the 1983 state elections, a coalition led by Congress Party renegade Ramakrishna Hegde of the Janata Party, with support from the BJP and Communist Party of India (Marxist), was installed. This marked the beginning in Karnataka of what Manor (2007) calls “rainbow coalitions”—a pattern in which a motley mixture of parties was able to form a majority and win elections at the state level, often with very short tenures. The important point here is that because of the nature of coalition politics, public largesse to as wide a range of constituents as possible became the norm. This was a trend that steadily chipped away at the budgetary resources of the state. I make this brief historical digression simply to point out that the cumulative effects of the populist measures of successive coalition regimes (especially farm electricity subsidies) no doubt did contribute to steady fiscal erosion (see Toshniwal and Vyasulu 2008).

But it was this historical legacy in combination with a qualitative shift in inter-governmental fiscal relations in the 1990s just described that set the stage for the late 1990s crisis. In addition, there is yet another factor cited in the literature that was also believed to have precipitated Karnataka’s fiscal downturn. In 1994, the Fifth Central Pay Commission mandated a hike in the salaries of senior government officials in order to establish parity between state and central government staff, effectively amounting to a 30% increase in their real wages.⁶¹ This was soon followed by the annulment of lower-level government positions, and a freeze in hiring

⁶⁰ One of the reasons why the Congress Party remained virtually unchallenged in the state during this time is that it orchestrated a fine balance between two major caste sub-groups: the Lingayats (non-Brahmin priestly caste) and the Vokkaligas (land-owning peasant castes) by rotating candidates from each caste into power over three decades. Although together, these two groupings only comprise 37% of the total population, their participation in decolonization struggles and subsequent recruitment to the Congress Party made them powerful lobbies (Manor 1989). When the Congress lost power, however, new political leaders no longer found it necessary to appease these two castes and began to turn their attention to a more diverse set of constituents in the state.

⁶¹ Expenditure on salaries, pensions and interest payments on debt accounted for 63% of the state’s total revenue in 1999-2000 (GoK 2005c: 3).

in public agencies and utilities, as was the case at the BWSSB (Rao 2006). Vijayabaskar and Wyatt (2005) argue that this is consistent with the World Bank's advice that a leaner and well-paid bureaucracy is a better bureaucracy. Covering higher government salaries and pensions proved to be a difficult burden for a state already witnessing lower intergovernmental transfers.

Owing to these multiple factors, the state's fiscal deficit grew one percentage point from the early 1990s to reach 3.4% of the state's gross domestic product at the end of the decade (Toshniwal and Vyasulu 2008: 18)—a growth rate and percentage that invoked warnings of a likely “crisis”. Karnataka was no exception in this regard and it was hardly the worst off: across India, states witnessed a sharp widening of their deficits in the late 1990s as a fall-out of higher expenditure on government salaries. What is interesting, of course, is not so much the deficit itself, but how it was diagnosed and resolved. Apart from recognizing the adverse impacts of the Fifth Pay Commission, official evaluations cited losses from public corporations, high interest payments on outstanding debts, and the “uneconomic pricing of irrigation and drinking water supply” as major reasons for Karnataka's fast-approaching “crisis” (GoK 2001: 4). It is important to keep in mind, as Goldman (2005) and others have argued, how crisis discourses and their remedies are often selectively framed. Although the deficit itself was undeniable, certain causes (e.g. “uneconomic pricing of drinking water”) were highlighted in policy scripts while others were underplayed or not mentioned at all (e.g. considerable water and electricity subsidies and tax holidays to woo private investors into technology parks and fuel liberalization). By omitting references to subsidies accorded to the private sector and focusing instead on agricultural and social spending, crisis explanations are therefore inherently partial and situated.

Crisis-talk does, however, hold enormous sway. Karnataka's crisis provided an opportune moment for the World Bank already waiting at the wings for a sign from the central government to step in with sub-national structural adjustment lending. Sub-national lending is somewhat of a novel strategy for the Bank, and one that serves as a “marriage of interests” between the Bank and the Government of India (Kirk 2010: 59). Lending to specific states not only allows the Bank continued and targeted policy leverage in the country, but decision-makers on either side also expected that focusing on reform-committed states, such as Andhra Pradesh and Karnataka, would produce “demonstration effects” to encourage lagging states to follow suit.⁶² Additionally, the finance ministry maintained that the World Bank would be in a better position to enforce fiscal discipline on states since, unlike the coalition government at the center, an external actor did not need the political support of individual states. In Chidambaram's own words “it would do the states some good to expose them to the conditionalities of external lenders” (cited in Kirk 2010: 59).

Consistent with this philosophy, the World Bank financed a series of relatively small, but influential economic restructuring loans to Karnataka starting in 2001 in order to induce “corrective measures to put its finances back on the rails” (GoK 2001: 2).⁶³ Kirk (2010) also finds that individual chief ministers drove the signing of sub-national loans from the Bank in Andhra Pradesh and Karnataka. The two-pronged corrective strategy as delineated by both

⁶² While in the late 1990s, Bank lending targeted the low-hanging fruit of “model” reforming states (Andhra Pradesh, Karnataka, and Uttar Pradesh), by 2004 the Bank had shifted focus to lagging states.

⁶³ The third of these loans (\$200 million) was withheld because Karnataka's failed to achieve certain reform milestones in the power sector (Menon 2004).

external loans and domestic policy rhetoric—first, mobilizing additional resources and second, reprioritizing expenditures—later came to be backed by legislation. Karnataka’s Fiscal Responsibility and Budgetary Management (FRBM) Act (2002), for instance, is a direct outcome of recent Bank loans. The legislation sets new caps on and timelines for the reduction of the state deficit.⁶⁴ Major strategies include improving tax collection, reducing budgetary support to public enterprises, and “reducing implicit subsidies in respect of services, such as drinking water supply, irrigation, higher and technical education, and secondary and tertiary health care, particularly those not directed to the poor”.⁶⁵ The latter essentially translates into levying higher “user charges”, and is expected “to be brought about by greater community participation in maintenance of assets and by ensuring [the] quality and reliability of services” (GoK 2001: 6). The theme of coupling user charges with “community participation”, which essentially translates to user charges, is a recurrent one—appearing not only in state-level fiscal plans, but also in the documents of individual projects, as we will see in the Greater Bangalore water project. These discursive and material shifts became vivid at the city level, especially as decentralization legislation was gradually reinterpreted along economic principles.

How “resource mobilization” trumped “power to the people”

At the same time that fiscal correction began to take hold in the 1990s, another political project was afoot. In 1992, a slim booklet titled “Power to the People: The Nagarapalike Act” was published by the Ministry of Urban Development outlining the provisions of the 74th Constitutional Amendment for urban decentralization. On paper, the main provisions of this legislation include the transfer of key powers and services from the state to the local level, accompanied by budgetary support for these new responsibilities and policies to raise resources locally through taxes, duties, and user fees (MoUD 1992). The normative appeal of decentralization lies in the belief that “the quality of political participation, and therefore of public life itself, will be substantively transformed only when people foregather to collectively debate and deliberate on issues of common concern, and are provided with decision-making powers to give effect to their shared concerns” (Jayal et al. 2006: 2). A mistrust of centralized forms of decision-making that can at best, provide “inappropriately uniform solutions to diverse local problems” (ibid: 3) and at worst, thwart redistribution goals pervades arguments for decentralization.

The literature on the Indian context generally concurs that decentralization was originally motivated by these democratic ideals (e.g. Aziz et al. 1996; Crook and Manor 1998; Manor 1997), and not forced through donor conditionality or implemented in order to solve the state-level fiscal crisis of the 1990s (the move towards decentralization occurred in the 1980s and thus predates the fiscal crisis). However, nearly two decades after the passing of the constitutional amendment, there is mounting evidence that the almost singular emphasis on “resource

⁶⁴ Note that Karnataka was the first state in India to pass fiscal responsibility legislation and passed it even before the union government.

⁶⁵ Toshniwal and Vyasulu (2008) find that over the past decade since the initiation of fiscal correction, Karnataka’s spending on social sectors such as health and education as a proportion of total expenditure in the state have declined [see also the state’s Human Development report (2005b: 40-45)]. Troubling findings by the Center for Budget and Policy Studies, moreover, show that those districts that are socio-economically the worst off in the state have received the lowest support for health and education.

mobilization” at the city level arising out of fiscal correction has tended to reframe the project of decentralization along narrowly economic terms (Sangameswaran 2009). This has led some commentators to argue not only that the imperatives of fiscal correction and decentralization often work at cross-purposes (Benjamin and Bhuvaneshwari 2006), but also that the agenda of the latter is increasingly being subsumed within the former.

Two specific reasons account for this prognosis. First, scholars on both the right and the left concur that one of the greatest weaknesses of decentralization legislation is that although it requires that functional powers be devolved to local bodies, in reality financial and fiscal devolution has been far from reliable or transparent (Bagchi 2001; Kundu 2004; Mathur 2006). While the constitutional amendment does delineate the two avenues through which funds are to be devolved from states to ULBs (the consolidated fund and the state finance commissions), in practice, cities have not always received the funds they expect or need and rarely receive them on time. In part, this is due to the “strict fiscal measures adopted by governments at the higher levels” (Bagchi and Kundu 2003). The notion that the government should play the role of a “facilitator” rather than a “provider” of infrastructure has increased the central government’s reluctance to meet funding requests (Kundu 2004). Karnataka, for instance, has maintained a tight control on devolutions to local bodies. Toshniwal and Vyasulu (2008: 57) find in their detailed analysis of the state’s budget over the past decade that “the amounts devolved to local self governments—all *panchayats* and municipalities taken together—are miniscule”. As a result of unreliable or tied intergovernmental transfers, several unfunded mandates exist at the local level. As a result, throughout the 1990s, the quality of service delivery deteriorated rapidly in municipalities.

Second, several years after the constitutional amendment was passed, there continues to be widespread inertia across Indian cities in instituting the political processes and spaces to support local decision-making or even awareness, suggesting, as in other developing country contexts, that local democratic control tends to be largely “rhetorically honored more than substantively instantiated” (Evans 2005: 31). Indeed, there is much debate about what these spaces for democratic participation should look like. Some, like Ramesh Ramanathan (2008), a Bangalore-based civic activist, argue that institutionalized citizen participation at the polling booth level—an arrangement known as an “area *sabha*”, one that mimics its rural counterpart—should provide the primary means of achieving local accountability.⁶⁶ Others, contending that an over-emphasis on civil society participation, as in Ramanathan’s model, may hijack political processes and the interests of the poor, insist on a greater role for elected representatives through constitutionally mandated ward committees (CASUMM nd). Ward committees according to the 74th Amendment must be composed of both elected representatives and local residents, but have so far not been constituted at all in Karnataka or exist only in name. On either side of the area *sabha*/ward committee debate, there is general agreement about the incompleteness of political decentralization. As Chamaraj and Rao (2006: 126-127) of CIVIC Bangalore put it, the state government in Karnataka has been unwilling to cede its decision-making powers; in the absence of local structures, state-level agencies or parastatals are “allowing backdoor control of the state government over local governance”. This situation has been seriously exacerbated by the

⁶⁶ Ramanathan’s proposal forms the basis of the Community Participation Law, now a mandatory reform under JNNURM.

suspension of an elected council in Bangalore over the past three years while state officials were implementing the administrative changes to account for its jurisdictional expansion.

The net effect of unfunded mandates on the one hand and a vacuum of local decision-making on the other has been that “resource mobilization” along market criteria has emerged as the single most important policy objective in cities today as seen by its constant incantation in conversations with KUIDFC experts, project documentation, and state-level policy scripts. Experts and financial brokers at the interstices of the state system as well as ostensibly non-state actors including public interest trusts, foundations, and NGOs, moreover, are increasingly regulating the mechanics of resource mobilization. This is the “double movement” that characterizes the ascendancy of neoliberalism, wherein projects of commercialization and privatization have entailed “significant *extensions* of state power, together with construction of new bureaucracies and modalities of government” (Peck and Tickell 2007: 33). As Ferguson and Gupta (2002) have usefully suggested, such shifts pose new challenges to how we imagine “the state”. Thus, it is not the case that extensions of state power occur in an entity existing “up there”, but in *new spaces* that are dispersed and simultaneously “outside” and “inside” the state. Before discussing what these new spaces look like in Karnataka, I first turn to what the move towards resource mobilization has meant in concrete terms for the urban water sector.

4.3. Fluid Contracts: Bonds and Water

The transnational geography of capital markets

Against the backdrop of a fiscal crunch across states in India and predictions of the magnitude of resources required for urban infrastructure in the coming decades, an influential report by the Expert Group on the Commercialization of Infrastructure appointed by P Chidambaram was published in 1996. Chaired by Rakesh Mohan, then director of the National Council for Applied Economic Research (NCAER),⁶⁷ the expert committee presented a “TINA” (there is no alternative) vision of the future of infrastructure in the country, similar to the rhetoric of pro-market political projects undertaken in Thatcher in the UK and Regan in the US in the 1970s (Hackworth 2007; Peck and Tickell 2007). The report insists under the subtitle “Commercialization: A New Wave, a New Necessity” that there are “*basic pragmatic and non-ideology-related factors* that are leading economies all over the world to consider enhanced commercialization of infrastructure provision” (Mohan 1996: 1, emphasis added).⁶⁸ It is critical to note the language of the report: by suggesting that “economies all over the world” are adopting commercialization for “non-ideology-related” reasons, the report reflects precisely the type of construction that Gramsci captured through his notion of hegemonic “commonsense”. By appearing to be “pragmatic” and beyond reproach, commercialization through higher user charges, a move away from subsidies, and leveraging the capital market is portrayed here as the commonsensical and, quite bluntly, *only* solution to India’s infrastructural problems. Much of the

⁶⁷ The NCAER is an influential pro-business economics think-tank based in New Delhi sponsored by the Government of India, McKinsey Global, and a host of other corporations and international development agencies. Its current governing body is composed of, among others, Nandan Nilekani and Mukesh Ambani (see: <http://www.ncaer.org/governing.html>).

⁶⁸ The report focuses on all infrastructure sectors, with specific sections dedicated to urban water and sanitation.

report is dedicated to why and how India should develop a municipal bond market, and importantly, it recommends the establishment of a specialized apex financial intermediary to facilitate the debt market, one for which there is “possibly no parallel anywhere in the world” (ibid: 16).⁶⁹ The first policy script to broach the unequivocal need for capital market financing and other market-oriented reforms in India’s infrastructure sectors, the report became an important referent for subsequent policy statements in the urban water sector (Baindur and Kamath 2009).

Now, at the time of the report’s writing, India’s still nascent capital market was in need of a “kick-start” (Mohan 1996: 10). That “kick-start” was provided by the United States Agency for International Aid’s (USAID) Financial Institutions Reform and Expansion through Debt component or FIRE-D⁷⁰ program, the single most influential force on India’s bond market to date. Initially launched in 1994 to channel funds to domestic institutions⁷¹ for moderate-income housing loans in India, in 1998, FIRE-D catalyzed the country’s first municipal bond issuance for an urban water and sanitation project in western India. Financed in part under the US Housing Guaranty fund approved by Congress in 1981 (Rakodi 1995), and in part through USAID’s Development Credit Authority, FIRE-D leverages the US capital market to raise private finance for municipal infrastructure. Consonant with Cold War aid policies of expanding markets in poorer countries, under the Housing Guaranty Fund, US investors can lend to borrowers in developing countries in their local currencies. The borrower receives the same interest rate—known as a “coupon rate”—available in the US capital market for a similar long-term US government-guaranteed loan. The higher the credit rating of the borrower, the more private capital the borrower is able to raise in the US market (Petersen and Phelps 1997). By using the Housing Guaranty fund as collateral, FIRE-D “helps cities mobilize resources by issuing bonds, obtaining loans from financial institutions, or using other debt financing mechanisms for urban infrastructure” (USAID 2004a).

As a result of USAID assistance, in 1998, Ahmedabad became the first city in India to issue tax-free municipal bonds without a government guarantee for a project to extend water and sanitation to 3.5 million people (McKenzie and Ray 2009). In order for the city to borrow from the market, its bonds have to first receive a favorable credit rating, an alphanumeric score that communicates the relative risk entailed to investors. This typically can happen if the city is

⁶⁹ The report recommends the establishment of an all-India “Infrastructure Finance Development Corporation” to essentially provide for “credit enhancement of instruments issued by lower credit-quality institutions; to encourage competition in the capital market...; to kick-start the debt market...” (Mohan 1996: 14). Although no such “apex” institution has been established to date, KUIDFC performs precisely the role delineated by the report within Karnataka.

⁷⁰ The use of “FIRE” as an acronym for the USAID project in India is fascinating. Although I could not locate the exact source of the acronym, I found the very same acronym used to describe a transition in New York City in the 1970s under Mayor Koch to an economy based on “Finance, Investment, and Real Estate”. Matthew Gandy (2002: 232) thus says “the recapitalization of New York City under Koch was simply the outward manifestation of a brutal realignment of city politics to serve the emerging FIRE economy and create a new business environment more conducive to the needs of international capital”. The fact that an identical acronym was used for a US-funded project in India based on similar components (urban real estate, investment, capital markets, and finance) may or may not be a coincidence.

⁷¹ HUDCO and IL&FS were the two domestic institutions through which US funds were channelled.

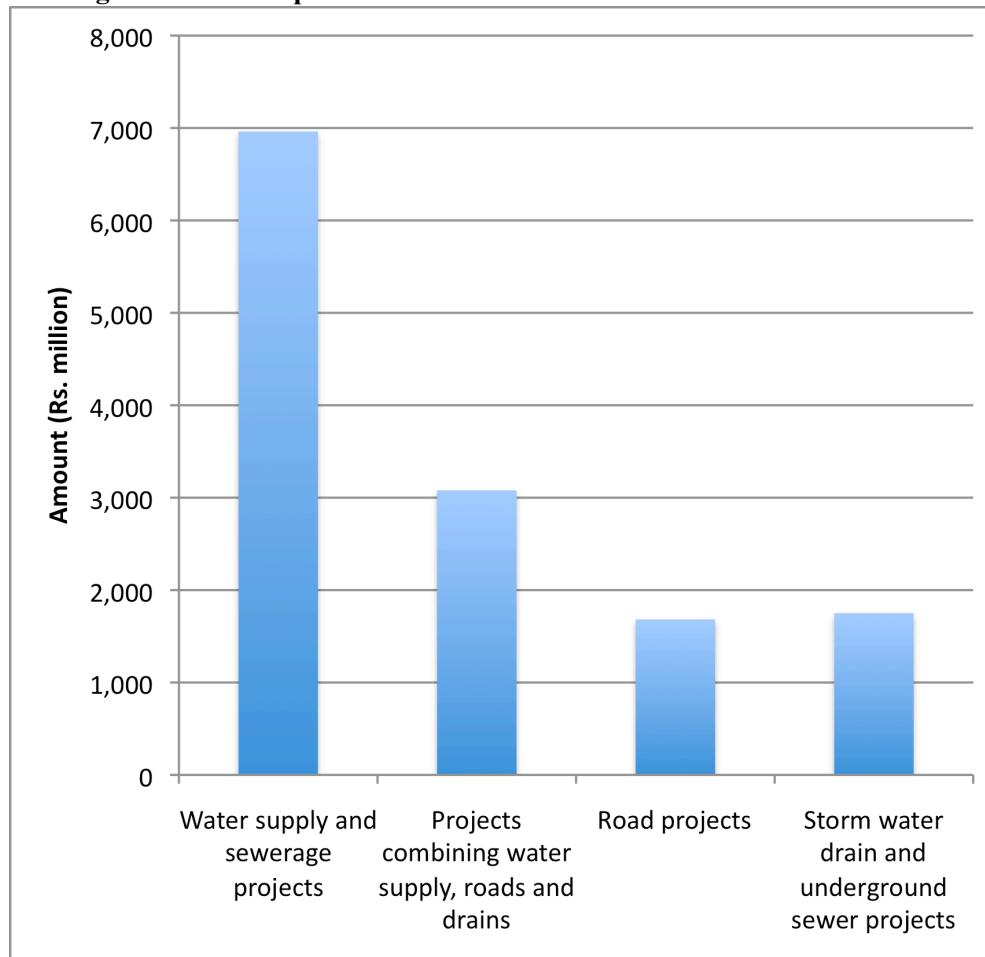
deemed financially sound and and/or suitable “credit enhancement mechanisms”, a euphemism for stringent debt servicing obligations, are in place. FIRE-D works with its partners—an urban research institute based in New Delhi, a variety of financing institutions, and the credit rating company CRISIL (a subsidiary of global rating giant Standard & Poor)—to *ensure* that both small and large cities acquire investment-grade ratings on their bonds.⁷² In Ahmedabad’s case, the city was able to successfully float bonds with the rating of A+ for its water project because sustained efforts at tax collection in the mid-1990s had made it one of the more financially solvent cities in India (Mahadevia 2003). We will see, however, that this was not the case for smaller peripheral cities surrounding Bangalore that participated in the FIRE-D supported Greater Bangalore water project. Despite not being credit-worthy *at all* in this case, FIRE-D was still able to recruit these cities through mechanisms that creatively pooled the finances of multiple cities, and escrowed or pledged their revenue sources to debt servicing. I examine the details of this financial artistry in the following chapter. For now, however, I am interested in considering the arguments in favor of enhancing the bankability of the water sector through bond financing. I also interrogate the experiences with bonds thus far both in India and the US, a country that has the most mature municipal bond market anywhere, and one that was deemed a “relevant model” (USAID 2004b: 14) for the Indian experiment.

Bankability, financial scrutiny, and the US as a “relevant model”

To date, nearly 40 cities in India have been enlisted by USAID’s FIRE-D program, collectively floating approximately Rs. 13 billion worth of taxable and tax-free bonds (Vaidya and Vaidya 2008). The majority of bond issuances to date have been for “bankable” water and sanitation projects, or projects that are supposed to be able to pay for themselves (Figure 29). One reason for the predominance of the water sector in India’s bond portfolio is the USAID’s (2004b: 16) own stated goal of prioritizing municipal water supply and the “enhancement of infrastructure services to poor communities”. There are, however, several other arguments often invoked within Indian policy-making circles for why the urban water sector should leverage bonds. I examine these in order to delineate the profound reorientation of water policy thinking in India today.

⁷² An “investment-grade” rating is a favourable rating; a “speculative-grade” rating is not. Three companies have a monopoly in the credit rating business worldwide: Moody’s, Standard & Poor, and Fitch. While Moody’s designates investment-grade bonds or clients as Aaa, Aa, A, and Baa; S&P and Fitch designate them as AAA, AA, A, and BBB. To indicate intermediate ratings, S&P uses + and – signs where as Moody’s uses numbers from 1 to 3 (e.g. Aa2) (Hackworth 2007: 22). Note that even sovereign countries receive credit ratings; India received a rating of BBB by Standard and Poor’s in 2007.

Figure 29. Municipal bonds issued to date in India across all sectors



Source: Vaidya and Vaidya (2008)

First, with fewer funds flowing to cities and an emphasis on local resource mobilization, there exists a widespread notion that bonds enable local city governments and water utilities to become “self-sufficient”—that is, to pay for their own capital expenditures instead of depending on transfers and subsidies (Sangameswaran 2009). As Amitabh Kundu (2003) notes, there is a broad consensus among Indian planners that rather than being in the business of paying for infrastructure or providing it, the government should be an active facilitator in the market—removing deficiencies and guarding against failure when necessary. Second, as repeatedly stated by international experts and domestic policy-makers alike, in the absence of state transfers, the private sector alone cannot be relied upon for significant capital investments in water and sanitation infrastructure. Politically contentious and prone to reversal and undoing—as was true even of the Greater Bangalore water project as I discuss in Chapter 5—privatization of drinking water supply has not taken hold to any significant degree in India. It is thus necessary, so the argument goes, for municipal water and sewerage utilities to “consider all options at their disposal” (USAID 2005: 5) and thereby to “foster a culture of commercialization” as “preparatory work for private sector participation” (GoK 2003b) as the Karnataka Urban Drinking Water and Sanitation Policy frames it. Third, and perhaps most crucially, proponents argue that scrutiny by the market will *discipline* cities and their water boards by mandating

transparent accounting procedures and responsible debt servicing behavior. As Sangameswaran (2009) finds in her study of Maharashtra, the move towards market financing has been inseparable from a shift towards new accounting procedures. Concerted domestic efforts are in full swing via reform programs to transform single-entry municipal budgets into more “accountable” double-entry⁷³ budgets. In double-entry accounting, water can be treated as a separate line item instead of being cross-subsidized by other sectors as it typically has been. For instance, even a cursory look at the budget of any small municipality reveals a significant gap between its water revenues and expenditures. In Bommanahalli, revenue earned from water charges was a mere 4% of expenditures on water—largely for the electricity needed to pump municipal borewells.⁷⁴

Table 3. Revenue and expenditure for Bommanahalli in 2001-02

Revenue (2001-02)	Amount (Rs. 100,000)	Expenditure (2001-02)	Amount (Rs. 100,000)
Property tax	160.10	General administration	46.14
Water charges	4.44	Public safety	217.17
Advertisement tax	2.14	Water supply	111.40
Stamp duty	74.12	Sanitation	115.74
Development charges (from households)	227.44	Public gardens and parks	15.25
Other fees, sales, rents	102.21	Other public works	104.95
Salary grants	61.15	Public schools	0.23
State grants	146.14	Capital expenditures	355.22
Miscellaneous	87.75	Miscellaneous	137.84
Total	865.49	Total	1103.94

Source: Rath and Rao (2006)

Although this ratio appears low and arguably should be above a paltry 4%, it is not obvious what the “correct” ratio of revenue to expenditure should be for water, or whether, as Sangameswaran (2009) points out, complete cost recovery is desirable or even feasible. But, whereas in the past, expenditure on water could be cross-subsidized via revenue earned from other sources and this cross-subsidization could, in turn, be “hidden” in a municipality’s overall budget, today, such discrepancies between the expenditure and revenue earned on water as a stand-alone line item in a budget can be easily spotlighted. Thus, as one KUIDFC official put it, “accounting reforms are a precursor for water sector reform.”

Bond financing in this context is argued to further encourage such diligent accounting procedures not only because investors require such procedures, but also because bond repayment is tied to cost recovery measures, thus requiring that municipalities and water utilities set appropriate tariffs and charges, meter all connections, and undertake “leakage reduction” (the latter often translates into the removal of public taps). In other words, proponents contend that

⁷³ Single entry accounting is when a running tally is kept in a single column of all the expenditures and revenue earned, otherwise known as “checkbook” balancing. In double entry accounting, the credits and debits of each line item in the budget is maintained in two different columns and added up individually. The latter is thought to be a more transparent way of keeping track of assets and liabilities of individual sectors. It is now also a component of the World Bank’s Karnataka Municipal Reforms Project (KMRP).

⁷⁴ Interview with Sharadini Rath on April 17, 2007.

because a contract is entered into with the market, bond financing has positive spin-off effects on water management itself.

Given that India's experience to date with municipal bonds in the water sector is still relatively nascent, it is difficult to ascertain the strength of these arguments. However, there is cause for concern on three specific fronts: bond rating, bond repayment, and the relationship between local governments or water utilities and financial intermediaries. A recent report on market-based financing for the water sector—published by Europe's pre-eminent neoliberal intellectual forum, no less—submits that in the wake of the financial meltdown of 2008-09, the credibility of rating institutions has been “questioned” (OECD 2010: 122). In general, even prior to the sub-prime mortgage crisis, critics cautioned that although the alphanumeric grading system of credit rating agencies provides the semblance of technical rationality and apolitical impartiality, in reality: “there is overwhelming evidence that credit ratings are of scant informational value” (Partnoy 2002: 65). There is compelling reason to believe that this may be all the more true for India. In Kundu's (2002) analysis, most of the quantitative indicators used by rating agencies to measure the creditworthiness of a city and its bonds are arbitrarily defined, since budgetary information is compiled differentially by municipalities, difficult to come by, and not very reliable in the first place. The validity of grades assigned by agencies is therefore suspect: it is not uncommon, for instance, for the subjectivity of rating agencies based on the *future* actions of municipalities to come into play. Whereas in the US, it is standard practice for rating agencies in the US to evaluate cities based on their financial *history*, in India, rating agencies have established qualitatively different criteria, conjuring up optimistic future revenue scenarios as I discuss in Chapter 5. To make matters worse, rating methodologies are rarely publically displayed. Thus Kundu (2002: 294) remarks that “a review of the analyses done by CRISIL suggests that it has indeed not based its rating on a few quantitative indicators alone but a host of other factors, including those pertaining to the policy perspective at the city and state level *that are not measurable*” (emphasis added).

Debt repayment is a second important concern. Through mandated escrow mechanisms, repayment for bonds can adversely affect vital, non-remunerative municipal expenditures. As Kundu (2002: 294-95) warns, when city governments are subject to such clauses “the body may encounter problems in undertaking activities to meet its social obligations that do not have immediate financial return”. In the case of Ahmedabad, Mahadevia (2002) finds that several years after the city first issued a series of municipal bonds for its water project through the FIRE-D program, its debt servicing has been so significant that the city has been forced to cut down its public bus fleets, increase cost recovery in its two largest public hospitals where most of the clientele is poor, and privatize certain services. Kundu (2004) argues that bond repayment is expensive currently because the cost of borrowing funds sourced from US capital markets does not necessarily work out to much cheaper than funds raised internally. On average, taxable bonds are more expensive to repay than tax-free bonds (Table 4), but the latter is harder to come by given the scale of approvals needed from the Government of India. The OECD (2010) report finds that the credit crunch of 2008-2009 resulted in a sharp decline of municipal debt issuances for water projects because of ramped-up coupon rates in both the US⁷⁵ and India. Although the cost of borrowing in the Greater Bangalore water project was lower because the Government of

⁷⁵ Long-term borrowing costs have increased by 6% for top-rated municipalities in the US (Platz 2009).

Karnataka permitted tax-free status for the bonds, as I have argued elsewhere (Ranganathan et al. 2009), the main security for debt is structured payments from the local governments' property tax revenues. Debt repayment for the water project could potentially squeeze funds for other needed investments. On the other hand, if the debt is transferred to the water board as a result of the Greater Bangalore merger as discussions I had in Bangalore in 2008 portended, project beneficiaries are likely to be required to service it through sustained capital contributions and higher water tariffs.

Table 4. A sample of municipal bonds for water and sanitation projects in India

City/utility	Year of Issue	Type of bond	Amount (in Rs. Million)	Annual Coupon Rate	Escrow mechanism	Rating
Ahmedabad	1998	Taxable	1,000	14%	Octroi from 10 collection points	AA-(SO)
Ludhiana	1999	Taxable	100	13.5% to 14%	Water & Sewerage taxes and charges	LAA-(SO)
Nashik	1999	Taxable	1,000	14.75%	Octroi from four collection points	AA-(SO)
Nagpur	2001	Taxable	500	13%	Property tax and water charges	LAA-(SO)
Fourteen municipalities of Alandur	2002	Pooled financing: Taxable	304	9.20%	Property and other tax receipts; intercept for state devolution	AA (SO)
Eight municipalities of Greater Bangalore	2003	Pooled financing: Tax-free	1,000	5.95%	Property and other tax receipts; intercept for state devolution	AA (SO)
Visakhapatnam	2004	Taxable	200	7.75%	Property tax	AA-(SO)

Source: Compiled from Vaidya and Vaidya (2008); USAID (2005)

Finally and in a related vein, as 100 cities across India are being assessed for their creditworthiness (Vaidya and Vaidya 2008), it is worthwhile to consider the type of relationship that can develop—and has historically developed in other contexts—between city governments (or water utilities) and rating agencies. The US illustrates quite starkly the type of fraught relationship that can develop between cities and rating agencies. It is difficult, in fact, to conceive of an urban history of the US outside of a history of local government borrowing and relations with rating agencies. Although the US municipal bond market dates back to mid-19th century, it was “the 1970s [that] put a spotlight on the previously obscure borrowing and repaying activities of local governments” (Sbragia 1983: 5). Prior to and into the 1970s, US cities had come to increasingly depend on federal and state government aid. But by the end of the

decade, the fact that two federal government programs had expired and were not renewed in the wake of the election the fiscally conservative Reagan administration meant that cities had to look elsewhere to fund capital investments. Moreover, compounding a fiscal crisis unfolding across the country in the 1970s, ever since the “tax revolts” of the 1970s—spurring the passage of acts limiting property tax increases in some states (e.g. Proposition 13 in California)—local officials were loathe to raise taxes. As a result, cities became increasingly reliant on debt. As Hackworth’s (2007: 25) research shows, the decline in federal monies to cities in the US between 1980-2000 has been almost perfectly counterposed by an increase in municipal debt for public services and capital infrastructure.

Initially, municipal debt in US cities took the form of *general obligation bonds* backed with the “full faith and credit” of a municipal tax base. These are bonds that have to first be voted on through a public referendum. In recent years, however, cities have circumvented both the electoral process and limits on debt imposed by state governments by creating special purpose vehicles (SPVs) or special districts. Through the mechanism of SPVs, US cities have issued *revenue bonds* that must be repaid through specific revenue streams to a much greater extent than general obligation bonds. Paradoxically, in an attempt to avoid public and state oversight, American cities are now increasingly beholden to credit rating agencies.

New York City, for instance, provides an extreme case of how beholden a city can become to rating agencies. A combination of de-industrialization and white flight to the suburbs in the early 1970s sharply diminished the city’s tax base and precipitated a fiscal crisis in 1975 (Gandy 1997; Harvey 2005). In April of 1975, Moody’s downgraded the city from A to Ba to Caa, a rating known as “speculative-grade” (i.e. bad) in the language of rating agencies. This action effectively shut the city out of the capital market. In order to resurrect its credit status and regain access to commercial debt, the city instituted harsh fiscal austerity programs that slashed social service programs. It also began to woo investors through boosterist strategies (Harvey 1989), following which Moody’s reinstated its creditworthiness. Thus began a pernicious cycle in which every time the city collapsed into fiscal crisis—which it became increasingly vulnerable to given its growing dependence on Wall Street and real estate market—Moody’s subsequent rating downgrade pushed the city to slash more social spending until it “earned” the upgrade again (Hackworth 2002). As Mitchell and Beckett (2008: 83) find with respect to the effects of disciplinary measures levied by credit rating agencies on New York: “the loss of democratic control over the city had numerous ramifications, but none were as important as the changes in municipal spending priorities”.⁷⁶ Gandy (1997) shows, moreover, that the use of bonds to fund the rehabilitation and extension of New York City’s water and sewer infrastructure has proven increasingly socially regressive with higher water charges being levied to meet debt service obligations and conditions on bond issuances.

The comparison between the US and India should not, of course, be overstated. The US has the most sophisticated municipal bond market in the world. Despite the damage wrought by the mortgage-backed security crisis of 2008-2009, no other country has a market of comparable size and complexity. More than 50,000 states, cities, special districts and other entities offer

⁷⁶ According to Mitchell and Beckett (2008: 87), as a proportion of the total budget, the Department of Homeless Services fell by 95.2% and the Department of Social Services fell by 43.8% between 1993-2002, while the Police Department increased by 38.3% during the same period in New York City.

municipal securities (Platz 2009). Municipal bonds in fact constitute 12% of all corporate securities issued in the country and 19% of its GDP; in India, by contrast, the ratio of municipal bonds to all securities is less than 1% (GWI 2008). In the US, bonds finance a far greater share of public waterworks projects than is likely to be the case in India for decades to come. And although domestic rating agencies such as CRISIL and ICRA (a subsidiary of Moody's) are now ominously announcing the placement of Indian cities and water boards on "credit watch lists", the extent to which such market scrutiny will have an actual bearing on water policies is still unknown. Still, why an interrogation of the US case is important is because according to Indo-USAID policy scripts, the US is supposed to serve as a "relevant model" for India.

FIRE-D reports state that where the US municipal bond model is most "relevant" (cf USAID 2004b) for India is the former's innovation of a "municipal bond bank", which in India became synonymously termed "pooled financing". This is a mechanism that only very recently was attempted outside of the US, and was experimented with for the first time in Tamil Nadu and the Greater Bangalore water project. Today, the state of Quintana Roo in Mexico is experimenting with the very same model through USAID assistance (OECD 2010). With pooled financing, instead of accessing the market directly, several poorer, non-creditworthy municipalities can collectively access the market via a financial intermediary or an SPV. In Karnataka's case, KUIDFC was designated as the pooled financing intermediary for the Greater Bangalore water project. To fund water extensions to peri-urban Bangalore, it was thus KUIDFC that borrowed from the market on behalf of the eight municipalities. In turn, each municipality was to honor its debt obligation via an escrow mechanism that replenished a pooled trust fund or a "bond bank" managed by KUIDFC.

Now, in the US, for a city to participate in a bond bank, it is imperative that the decision must first be vetted by the city's citizens, city council, or by a bond counsel, which is an attorney or law firm retained by the city to provide a legal opinion about municipal securities. In the Greater Bangalore case, individual city councils were similarly required to vote and adopt a resolution pertaining to the project. I reproduce here how a Bangalore-based municipal budgets expert who attended several council meetings during the time that the project was approved, described this vetting process in an interview with her in 2007:

There was supposed to be a committee with councilors from each municipality to vote on decisions regarding bonds and the Greater Bangalore water project, but what exactly happened in these meetings is not clear. On what basis could they vote anyway? Information about the project was never provided to councilors in a cohesive manner. Two or three government orders were generated, and information was always half-baked and half-worked out. I think the people steering the project assumed that nobody would read these documents. They were very poorly prepared, with little justification of the loan amount, the yearly repayment amount, etc. The language used was also very technical and councilors couldn't make sense of it. In Kannada, the translation was highly *sanskritized*... That perhaps made it harder for them to understand any of it. From the councilor's position, if you wanted to understand the loan documents, you had to put it together with another document that was provided some six months ago. At the meeting, people started discussing that property tax would be tied to an "escrow account". But nobody explained what this was. I don't even think that

councilors knew what that meant. It was explained somewhere in an obscure paragraph in a few words. Councilors from Yelahanka and KR Puram began to tell me: “water supply is out of our hands. We know they have made the whole municipality irrelevant.” (Interview on April 17, 2007)

These first-hand observations of meetings to discuss the financing structure for the Greater Bangalore water project were corroborated by my own interviews with councilors. A disturbing finding of my research is that councilors had very little understanding about the mechanics of bond financing, although they were well aware of the beneficiary contribution policy. For instance, Ravi Purushottam, an ex-councilor of Bommanahalli and current president of his neighborhood federation (whom we will hear more about in Chapter 6) struck me as an engaged and generally aware politician. When I asked him about what he knew about the financing structure of the project, he appeared puzzled. He said that what was mostly discussed in the meeting was the beneficiary contribution policy and that he had “no idea about any debt since this was not discussed in any meetings”⁷⁷, much less of an escrow mechanism that tied property tax revenue to servicing the debt. Other councilors in KR Puram and Byatarayanapura reflected similar levels of unawareness about the resolution they had adopted vis-à-vis bonds. This, then, is perhaps the most troubling feature of the process through which market-based infrastructure reforms are taking root in India today. It is alarming, as Baidur and Kamath (2009) find, that despite little grounded evaluation, the Government of India has recently approved a Rs. 25 billion Pooled Finance Development Fund based on the “success” of Karnataka and Tamil Nadu experiences. Once again, as in the case of Nirmala Nagara’s scale-up into the Karnataka Municipal Reforms Project discussed in Chapter 3, here too, we see that isolated reform experiments are stamped as successes and used to justify their expansion. As discussed above, the fact that decentralization legislation has not yet produced robust structures of decision-making at the level of local government is rendering the resource mobilization drive highly top-down.

To sum up the chapter so far, the 1990s provided a conjunctural terrain on which particular forces came together to focus attention on “resource mobilization” as a preeminent policy goal in the urban water sector. Furthermore, because of only partially instituted or thwarted decentralization reforms—as a result of which unfunded mandates today abound and democratically accountable decision-making structures have yet to take root—decentralization for “local self-governance” has largely given way to narrowly defined notions of financial “self-sufficiency” and the mantra of “resource mobilization”. This has paradoxically resulted in much greater reliance on centralized nodes of decision-making in which the mechanics of resource mobilization are increasingly dictated by existing and new incarnations of state authority. Market rule as it is currently taking hold in Karnataka’s urban sector is thus deeply inflected with the enduring legacies of state-led development. It is this concoction of the developmental approaches of yesterday and the pro-market approaches of today that marks the homegrown logic of neoliberalism in India. In concrete terms, what we are seeing in urban water today is an interest in leveraging capital markets for water sector investments, especially in light of arguments favoring the positive spin-off effects on water management. The USAID’s FIRE-D initiative in India has played a pivotal role in spurring debt financing for the water sector, and proponents argue that in less creditworthy cities, the US bond bank provides India with a “relevant model”.

⁷⁷ Interview on July 8, 2008

However, the lack of awareness among elected representatives about the details of bond financing—a situation which defers markedly from the US where local representatives are far more savvy about market financing—reflects just how partially the bond bank model was ultimately transferred. Whereas the need of the hour is far greater attention to sensitizing local representatives to the benefits and pitfalls of market financing, instead, substantive participation by councilors is circumvented. In the final section of this chapter, I investigate the prime movers and shakers within Karnataka, the financial experts at KUIDFC, who have arisen from this conjunctural terrain, and in turn are shaping water policy-making in the state today.

4.4. Of Brokers and Bureaucrats: Financialized Spaces of Water Policy-Making

KUIDFC was actually in one sense a brilliant idea: distance it from government so when necessary, it can put on a corporate hat. But still it has the Urban Development Secretary on its board, and the Managing Director [of KUIDFC] is a potential Urban Development Secretary given that he is an IAS officer.⁷⁸ Municipalities therefore will not monkey around. The ability to enforce a covenant does not come because I've signed an agreement, but it comes, when necessary, from the might of government. It's a brilliant structure in that sense...

It *is* a brilliant structure in that sense I thought to myself as I listened to a former managing director of KUIDFC describe the agency to me in an interview. How does one begin to decipher an entity that is simultaneously “distanced from government” but also wields the “might of government”, that can put on a “corporate hat” as well as an “IAS hat”, that does not have any—or really report to any—elected representatives yet can ensure that municipalities “will not monkey around”? With only one government-appointed officer at the helm of the organization as its Managing Director, and several staff members with technical backgrounds that are expressly *not* career bureaucrats and do not get shuffled around following elections, this is an organization that seems to have the best of multiple worlds.⁷⁹ It epitomizes the “rolled back” and “rolled out” state as Peck and Tickell (2002) would remark⁸⁰ *rolled together*. It is a new, rescaled form of contemporary statehood, exemplifying what Brenner (2004) would call a “new state space”—not only in that it pursues economic interests in specific urban locales, but also because it forges new regulatory relations *between* scales of government and *across* the business and corporate world. Indeed, KUIDFC constitutes in and of itself a new financialized state space, one that is playing an increasingly decisive role in urban water policy-making. This is an entity that challenges what Ferguson and Gupta (2002: 962) identify as the taken-for-

⁷⁸ KUIDFC's institutional structure is such that the Managing Director is an IAS officer and thus a state government appointee.

⁷⁹ Note that in India, it is rare to have such a high-level government organization composed of so many non-career bureaucrats that do not report to elected officials or are not constantly shuffled around.

⁸⁰ According to Peck and Tickell's (2002) now well-known thesis, neoliberalism as it unfolded in the North Atlantic zone was characterized by a stage of state “roll-back” in which the Keynesian welfare state was deregulated and dismantled, followed by a current stage of state “roll-out” which is characterized by the purposeful construction and consolidation of new forms of statehood, governance, and regulatory relations. Several authors have subsequently drawn on this thesis to examine neoliberalization elsewhere. Priya Sangameswaran (2009) argues, for instance, that water reforms in Maharashtra are marked by the simultaneous roll-back and roll-out of the state and regulatory relations.

granted metaphor of “vertical encompassment” through which the state is imagined—and imagines itself—as simultaneously “up there” and encircling of other institutions. When apprehended empirically and ethnographically, the spatiality of KUIDFC appears remarkably multifaceted and difficult to pin down. It demands a frame, which, rather than impose distinctions between state, market, and civil society, can emphasize instead “the similarities of technologies of government across domains” (ibid: 995).

So what *is* KUIDFC? How did it come about? Who is it composed of? What political rationalities and governing technologies does it deploy? And why does it matter for our understanding of contemporary urban water policy in Karnataka today? If it is true, as David Mosse (2005: 15) says, that “development policy ideas are important less for what they say than for *who* they bring together; what alliances, coalitions, and consensuses they allow, both within and between organizations”, then answering these questions is crucial.

In 2007 and 2008, I made multiple visits to KUIDFC’s headquarters ensconced, rather oddly, within tour and travel company offices in a block of corporate offices off of Bangalore’s perpetually jammed JC Road. Not a typical location for a state government office—most of which are located in or within walking distance from the Vidhana Soudha further north from there—the agency is still only a short bus ride away from the city’s visual signifiers of state grandeur, a location symbolic perhaps of its “distance” yet inseparability from the state government. Through an introduction from the Urban Development Department, I was able to meet with KUIDFC staff, including several of its past directors. Because of this introduction and perhaps the fact that I was perceived as an external researcher with no local loyalties *per se*, I was able to gain access to the organization’s past and present employees. It was true in my case, although I recognize that this may not be true in all cases, that KUIDFC proved to possess an “open culture”; it is a place where “people can just walk in and there’s no question of hierarchy”; where “there is a willingness to talk to researchers”.⁸¹ I was welcomed to peruse its library piled high with evaluations of municipal finances, engineering design reports for water and sanitation projects, and a series of resource mobilization studies funded by various international agencies. I was even able to persuade KUIDFC staff to invite me to a workshop on private sector participation in the water sector it hosted in June 2007 at the National Law School. These multiple exposures provided insight into its institutional workings, and allowed me to move beyond textual exegesis to interpret policy scripts “backwards to reveal the social relations that produced them, the future contexts they anticipate, and the wider discursive coalitions they call forth” (Mosse 2005: 15).

During my first round of meetings, I attempted to locate when and how the organization came about, and what role, if any, international development agencies such as the ADB, USAID, and the World Bank, had played in establishing its epistemological foundations. Indeed, my knowledge of the colonial and post-colonial history of Karnataka suggested that parastatal entities were not at all unusual for this state: after all, as Chapter 2 discussed, this was a state that had a predilection for non-elected, technically-oriented, state-run institutions, established *en masse* at the height of the developmental era in the 1960s and 1970s. But different times had called for a different sort of parastatal. As it was described to me:

⁸¹ Interview with ex-KUIDFC official on August 1, 2007

KUIDFC was set up in 1992-1993. The reason for KUIDFC's creation is that under the Moily government [ex-Chief Minister of Karnataka], there was a resource mobilization discussion. You see there is always an exercise before every budget in which you have to give some new evidence for ARM—what's known as "additional resource mobilization". You must be familiar with this term? Moily and his secretary said that the government cannot fund urban infrastructure entirely since the requirement is far greater than what the government has. Government guarantees are proving to be inadequate, they said. So they suggested: maybe you should leverage the market. Maybe you should create an SPV [special purpose vehicle]. That's how the idea first came about. And I'm also sure that as part of some on-going ADB project-type discussion, the idea was bandied about. But I think the actual decision was a budget decision. So KUIDFC came about, and IFIs seized upon the idea. A lot of these things were happening disparately though...

As discussed previously, by the early 1990s, a certain type of problem analysis that insisted that urban infrastructure demands far outstripped available financial resources had come to dominate policy circles. This brief retelling of KUIDFC's history captures some of the contingent forces that came together to lay emphasis on "resource mobilization": shifting intergovernmental fiscal relations, state-level political drivers, and a reengagement of international lenders in sectoral policies and sub-national adjustment lending. It also captures the conjunctural terrain that provided the conditions of possibility for the establishment of KUIDFC in the early 1990s.

From its origins as a one-man operation in charge of channeling a loan from the federal government for India's "mega-cities"⁸² in 1993, the corporation has since grown to over 20 full-time executives, all of whom hail from management, finance, engineering, or accounting backgrounds, and a number of field engineers based at various project sites (KUIDFC 2006). Today, KUIDFC is officially the "nodal agency for externally aided projects"⁸³—even though as one executive put it, "calling it externally *aided* projects is Myth #1! This is not *aid*. Most of the money is coming in the form of *loans*!"⁸⁴ It currently manages five reform-oriented international loans for urban infrastructure—three from the ADB and two from the World Bank—as well as one multi agency-supported⁸⁵ project that leverages the municipal bond market, *i.e.* the Greater Bangalore water project, the case investigated in this dissertation. It now also plays a so-called "nodal" role in conditional financing provided under JNNURM, and market-based financing under the climate change regime's Clean Development Mechanism. All these activities deal in

⁸² The Mega City scheme was announced by the Ministry of Urban Development in 1993 for Bangalore, Bombay, Calcutta, Madras and Hyderabad to provide project-related finance mainly for water supply, sewerage, drainage, sanitation, city transport networks, land development, slum improvement, and solid waste management.

⁸³ From www.kuidfc.com, accessed 4/22/2009

⁸⁴ Interview with KUIDFC official on May 24, 2007

⁸⁵ USAID provided the bond financing model and 50% guarantee on the bonds; the World Bank funded the demand assessment; the IFC was transaction advisor for the (failed) privatization attempt. I discuss the details of this multi-agency project in the following chapter.

some way or the other with infrastructure financing, and associated pricing, financing, and institutional reforms; the bulk of its activities, however, relate to water supply and sewerage.⁸⁶

What do KUIDFC officials actually do on a day-to-day basis? Describing his job at KUIDFC, one executive said to me:

Basically our job is make money available for municipalities by liaising between international funders, the market, the Government of India, and ULBs. You see, Indian banks should take the initiative to lend for infrastructure, but the problem lies in the tenure of the loan—infrastructure loans need long periods—and banks don't understand and can't work with municipalities. So we borrow on behalf of municipalities, we conceptualize the project. The municipalities don't have the capacity to do this.

This to me was *déjà-vu*: exactly as the DMA and its Municipal Reforms Cell had described previously in the context of the Nirmala Nagara reforms, KUIDFC staff unanimously espouse the notion that municipalities simply do not have the “capacity” to interact with lenders nor the “capability” to design and finance their own infrastructure projects. Municipal governance, according to prevailing narratives, is virtually defunct and requires financial and institutional retrofitting. Specifically with respect to their role in enabling the eight municipalities in Greater Bangalore to access the market through pooled finance, one official said at the workshop on private sector participation:

The need for pooled finance is that ULBs on their own are really found wanting. There is really no governance we can talk about. They're only used to spending money and they don't take care about the debt in their books. So there was need to develop some framework under pooled finance. It's easy to say we can go to market and get money, but the market won't give you money unless it can ensure money is repaid. So to create that confidence, we set up credit enhancement mechanisms. We set up a “bond service fund” upfront to create investor confidence. And we also designed an intercept for SFC [state finance commission] devolutions in case any default occurred.

It follows from notions of poor capacity and “really no governance” to speak of in municipalities, then, that KUIDFC's job is to cover these perceived gaps. And it covers these gaps in ways that it knows best—i.e. through pinpointing financial weaknesses and rectifying them through the discipline of the market via specific projects. Yet, to think of KUIDFC as a type of consultant, project-executing arm of the state government alone—one that carries out its activities from project to project in isolated fashion—would be a mistake. Its reach is far deeper than that: KUIDFC experts now play a formative role in the design of overarching policy frameworks, such as Karnataka's pro-poor water policy currently under discussion within the ambit of the World Bank's Karnataka Municipal Reforms Project (Urs and Whittel 2009: 96-97), and the state rainwater harvesting policy (KUIDFC 2006). In brief, as a result of KUIDFC's ascendance, urban water in Karnataka state is being enframed therefore through a specifically financial logic.

⁸⁶ More recently KUIDFC has been appointed as the so-called “nodal agency” for coordinating energy efficiency and waste-to-energy projects under the Clean Development Mechanism—a market-based mechanism for mitigating carbon emissions in developing countries under the Kyoto Protocol.

How can we explain the ascendance of this institution from its modest beginnings to its far more ambitious programs of rule and policy reach over two decades? Part of the answer lies in the dynamism, disciplinary orientation, and professional aspirations of its previous managing directors. One apposite example is KP Krishnan, a Karnataka cadre IAS officer who holds Bachelor's, Master's, and Doctoral degrees in Finance and Economics. Prior to KUIDFC, Krishnan's career trajectory took him on deputation to the World Bank as financial advisor to its Executive Director. By the time he became KUIDFC's Managing Director, he was already acutely familiar with the internal workings of the World Bank and its board of directors, and perhaps more importantly, their weaknesses. From KUIDFC, Krishnan went on to become joint secretary in charge of capital markets in the Ministry of Finance, and then secretary to the prime minister's economic advisory council, perhaps one of the most prestigious and coveted positions in the Government of India.

In Vithal's (1997) analysis of evolving trends in the Indian bureaucracy, academic specialization within the IAS starting from the 1980s—exemplified by someone like Krishnan—is highly valued since it provides a gateway to jobs in the economic ministries, and greater opportunity for interface with and perks available from international financial bodies such as the International Monetary Fund and the World Bank. For Vithal (1997: 215), there is thus “a certain intellectual seepage” occurring between international finance institutions and senior bureaucrats, such that “the players on either side of the international divide find themselves having more in common than the national officials and those who they are supposed to represent” (ibid). It was under Krishnan's two-year tenure at KUIDFC from 2002-2004 that bond financing, the privatization of water distribution, and a new pricing structure for Greater Bangalore's water project were all attempted and pushed through to varying degrees, in addition to several other water sector loans and reforms.

Part of the explanation for KUIDFC's ascendance also lies in the social construction of “success” and processes of legitimation and validation from within and without, as alluded to in the previous chapter. One former director insisted “I think we influenced the World Bank and ADB into doing things they had never done before...that doesn't mean they did not contribute—they contributed enormously somewhere else. But the ideas themselves were driven very largely by the domestic team”. Others, however, felt that the institution owed its rigorous reform orientation to the influence of external agencies. One staff member provided specific examples of this influence: “all this language and strategies we use—‘city investment plans’ and ‘operations manuals’—we adopted from the ADB”. Several, moreover, felt that the ADB's first integrated urban loan to Karnataka in the mid-1990s, the Karnataka Urban Infrastructure Development Project (see ADB 2003), provided an important “learning experience” for the organization. Interestingly, this project with its unfinished works is widely felt to have achieved few, if any concrete gains for the six municipalities involved, both by critics *and* project proponents. Still, an aide memoire drafted by the ADB's Operations Evaluation Department rated the project as “successful, if modestly so” because of the “substantial other (indirect, unintended) positive impacts, amongst which are *institutional* and demonstration impacts”—specifically “institution building and capacity development within KUIDFC” (ADB 2005: 2-3, emphasis added).

“Intellectual seepage” between funders and KUIDFC and constructions of “success” therefore matter a great deal, regardless of whether individual projects actually succeed or fail. It is through these constructions of success that KUIDFC has been recruited from loan to loan, and that its activities have acquired ever more technical complexity and required ever more degrees of professional specialization and competence. By identifying areas of interventions, bounding them, dissecting them, and devising corrective measures to produce desirable results, KUIDFC indeed epitomizes the operation of “rendering technical” (Li 2007: 123), or, as Amita Baviskar put it to me at a workshop in 2009, “rendering financial” is perhaps a more apt descriptor of its mode of operation. As I will show in Chapter 5, with its market mentalities and governmental technologies of bonds and beneficiary capital contributions, the Greater Bangalore water project in many ways typifies the act of rendering financial.

But to rely on this reading of expertise alone would also be a bit simplistic. To say that KUIDFC experts render financial is not to say, for instance, that they are not politically savvy or acutely familiar with the political economy of reforms. On the contrary, demonstrating this political savvy one official said:

The goal of every bureaucrat is to increase his budget. Paradoxically this urban explosion and huge requirements for urban public funding is coming at a time when states are increasingly tying their hands with fiscal rectitude bills. So now, we are not supposed to stretch beyond our means. For 50 years we’ve been spending beyond our means and putting most of the money in rural India. Now we decide to be fiscally correct. Therefore, I need to go external. As someone who’s sectorally in charge of urban development I have a strong reason to push my CM [Chief Minister] for EAPs [Externally Aided Projects]. So then the question arises: how much of an insider of you? How can I use the World Bank as a threat? This is the insider’s only rule: to use the outsider. It makes a lot of sense for me to take IFI money. We have done this for good systemic reasons. There is at least some insurance of performance. If something goes wrong, Finance Minister will call CM and say: “you’re not doing well.” Then I will tell CM that the Bank says our user charge policy is messed up. Then he’ll shiver and say: “No, this is an election year...” Then I’ll say: “Sir, at least table it”. This is classic political economy of reforms: I can’t do all this internally, so I use external agents to put pressure.

Such statements reflect the type of political calculations underlying the shift to sub-sovereign lending described above. Rather than “reposing” political-economic issues wholesale as Tania Murray Li (2007: 126) puts it, such statements in fact belie a significant degree of political expediency, and a strategic valuation and deployment of political economy. As one official put it, KUIDFC deals with “complex political arenas of lending” that “lenders themselves are reluctant to get into”. To say that KUIDFC experts “render financial”, moreover, is not to say that the relationship between KUIDFC and international financiers has always been consensual, or that the alliance between KUIDFC and lenders merely reinforces the interests of the dominant classes and the business and bureaucratic elite. Rather, depicting a wariness of international agencies, one official said: “getting loans is a complicated process, especially to deal with external agencies. The World Bank thinks it can make the sun rise!” It is crucial, then, as O’Malley et al. (1997: 513 and 515) have argued, to “recognize the constitutive role for contestation among rulers” and to “build a theoretical space for *multivocality* within programs”

(emphasis added, see also Rankin 2001). This more Gramscian reading of the operation of hegemony—the acknowledgement of its inherently fluid and unstable characteristics—may make it easier to “prize apart a space for any political intervention” (O'Malley et al. 1997: 513).

In one interview, for instance, a KUIDFC official described a loan negotiation process with the World Bank as follows:

In 2002, the World Bank came for discussion about a project [the Karnataka Municipal Reforms Project] and we told them that if it was only a reform project, there would be no takers. The World Bank came to the table with only an agenda of reform and hardly any money. So initially, the project was supposed to be only Rs 500 *crores*, but there were no takers of course, so we negotiated a public health component in the Greater Bangalore project, especially to improve sanitation systems. Initially, we also thought JBIC [the Japan Bank for International Cooperation] would fund the sewerage component of GBWASP, but then they backed down and we needed this component financed, so we pushed to have that component included under the World Bank project (Interview with KUIDFC official on June 1, 2007).

The official went on to describe some specific points of leverage:

Earlier the World Bank had put in a covenant that PSP [private sector participation] will be sought. But the BWSSB has been doing a good job. Why should we do this just because of World Bank? We will see how PSP works under KUWSIP [the Karnataka Urban Water Sector Improvement Project, another World Bank loan]. Our objective is improving service delivery. If PSP succeeds, we should proceed (*ibid*).

At the workshop on private sector participation that I attended, another KUIDFC official echoed a similar ambivalence about privatization when he asked the audience: “we should ask ourselves: are we at the mercy of the private sector? The ultimate goal is service provision. How to do this? Is the private sector the answer? Or another institutional set-up?”⁸⁷ A cynical interpretation of such a statement could be that it was made merely to placate an oppositional NGO and scholarly audience at that forum. Indeed, the balance of evidence still suggests a strongly neoliberal, pro-market orientation to KUIDFC’s interventions despite this stated ambivalence. While this may well be true, I contend that it is precisely because of overlap in the interests and intellectual positions of international agencies and KUIDFC experts that the latter has become more adept at manipulating the former. The ascendance of a neoliberal intellectual platform and its attendant mechanisms, in this case, also provides the conditions of possibility for contestation among proponents of neoliberalism. As the organization has grown in stature and has positioned itself as a “nodal” or “obligatory passage point” (Callon 1986: 196) for money and influence, so too has its ability to set its own rules of the lending game. As the quote above reflects, KUIDFC experts removed the conditionality requirement of water privatization from the script of the World Bank-supported Karnataka Municipal Reforms Project loan that came through in 2006, despite protests from World Bank negotiators. Similarly, in another loan for municipalities in northern Karnataka, this time financed by the ADB, KUIDFC officials resisted the requirement to raise water tariffs overnight in the participating cities by 100%, a requirement insisted on both by the

⁸⁷ Presentation at KUIDFC workshop on Private Sector Participation in the Water Sector June 2, 2007

Indian government and the ADB. As one official told me: “instead of raising the flat tariff from Rs. 45 to Rs. 100, I said it’s better to raise to Rs. 55 otherwise the change is too drastic; people will suffer and NGOs will protest.”⁸⁸ Finally, another example of how KUIDFC establishes itself vis-à-vis lenders is that it continuously fights to have domestic consultants appointed rather than foreign ones that have less accountability. While organizations such as the ADB have a preference for foreign consultants that know how to write and read ADB reports, it is more difficult to lay down quality standards if consultants are foreign according to KUIDFC staff.

These insights echo to some extent Rankin’s (2001: 28) findings on rural microfinance in Nepal that the “domain of rural finance is fraught... with competing rationalities of governance”. While ultimately neoliberal ideology does take hold to “reconfigure the political rationality of rural finance” (ibid), it is important nevertheless not to lose sight of the “competing strategies of differently positioned state managers” (ibid: 23) and their attempts to “pose some resistance to that predominant rationality” (ibid: 28). The political and intellectual stakes of this approach, rather than an approach that accords an excessive coherence to programs of rule and their programmers, is critical. As we will see in the following chapter, it is precisely because the establishment of neoliberal hegemony by KUIDFC and its allies is so tenuous and fluid that the Greater Bangalore water project was challenged from *both* within and without. It is crucial therefore to avoid portraying neoliberal reformers as univocal and monolithic in order to advance progressive, politically relevant critique (O’Malley et al. 1997) and to advance a political agenda that can appropriate spaces to maneuver within the increasingly financialized spaces of water policy-making.

4.5. Conclusion

The central proposition of this chapter is that since the 1990s, urban water policy in Karnataka has been marked by increasing financialization, a term used in the literature to describe a heightened role for financial brokers, financial metrics, and capital markets in everyday life. This deepening financialization of municipal water cannot be examined in isolation from institutional reforms discussed in the previous chapter that seek to define the tenets of accountability, transparency, and participation according to contractualized market-oriented norms. This chapter sought to contextualize these twin trends by examining the broader political-economic history of the state of Karnataka since the early 1990s, as well as institutional innovations that emerged during this period. The chapter delineated, in particular, a conjunctural moment in which fiscal relations between levels of the state came to be reconstituted and individual states and their cities entered into new lending relationships with international financial institutions and financial intermediaries. I showed how particular framings surrounding state-level fiscal crises in policy scripts at the time were crucial in focusing attention on “resource mobilization” and financial “self-sufficiency” at the local level. While funds from the market will no doubt be one important source of capital for India’s urban infrastructure needs in the future, I argued that in its current form, market prerogatives are operating in a vacuum of democratic decision-making and control at the local level. This is largely because of the incomplete rollout of urban decentralization reforms in Karnataka. What this has meant is that

⁸⁸ In general, KUIDFC experts embrace the neoliberal notion that raising tariffs and building cost recovery into water projects will benefit the poor.

the modalities of market-oriented financing are increasingly being dictated by centralized regulatory entities in concert with allies in international agencies, rather than initiated by elected representatives or local administrators. Also discussed in this chapter was how the Indo-USAID's FIRE-D program served as a pivotal force in "kick-starting" the municipal bond market in India as called for by the Rakesh Mohan report. Yet, the transfer of the US bond bank model to the Indian context, one that was deemed to be "relevant" for financially weaker cities such as those in Greater Bangalore, occurred in remarkably selectively fashion—without public consensus or the knowledge of and the engagement by elected representatives unlike the case in the US. The tendency to centralize decision-making authority in the context of market-oriented reforms suggests that neoliberalism as a political-economic project inheres itself to existing institutional forms. In this case, Karnataka's longer legacy of state-led development continues to inflect its neoliberal agenda for infrastructure reform.

Finally, the chapter also discussed the role of an influential parastatal financial intermediary, the KUIDFC, in delivering financial innovations in the urban water sector and setting the current water policy agenda. The constitution of KUIDFC as an entity that is simultaneously part of, yet distanced from the state—one that can wield "the might of government", yet reaches across corporate and management domains to recruit its experts and allies—poses new challenges to how we theorize the state and conceive of it through spatial metaphors. Rather than seeing KUIDFC as an entity "up there" and all-encompassing (cf. Ferguson and Gupta 2002), it comprises a new regulatory regime that is simultaneously "inside" and "outside" the state. Indeed, it constitutes the "rolled-back" and "rolled-out" state *rolled together*. With its library piled high with resource mobilization studies and its explicitly financial orientation given the academic and career specializations of its employees and the range of consultants it relies upon, KUIDFC is an agency that indeed excels at what Tania Li (2007) might call "rendering financial". But it is precisely the savvy of its experts and awareness of the political economy international aid that also provide KUIDFC leverage vis-à-vis lenders. Rather than accord excessive coherence to programs of rule and their programmers, this chapter sets the stage for uncovering the multivocality of programs of market rule. As we will see next, it is precisely because the operation of neoliberal hegemony is so fluid and contestable that the Greater Bangalore project was challenged both by its proponents and critics.

CHAPTER 5

Piped Water and its Technologies of Payment

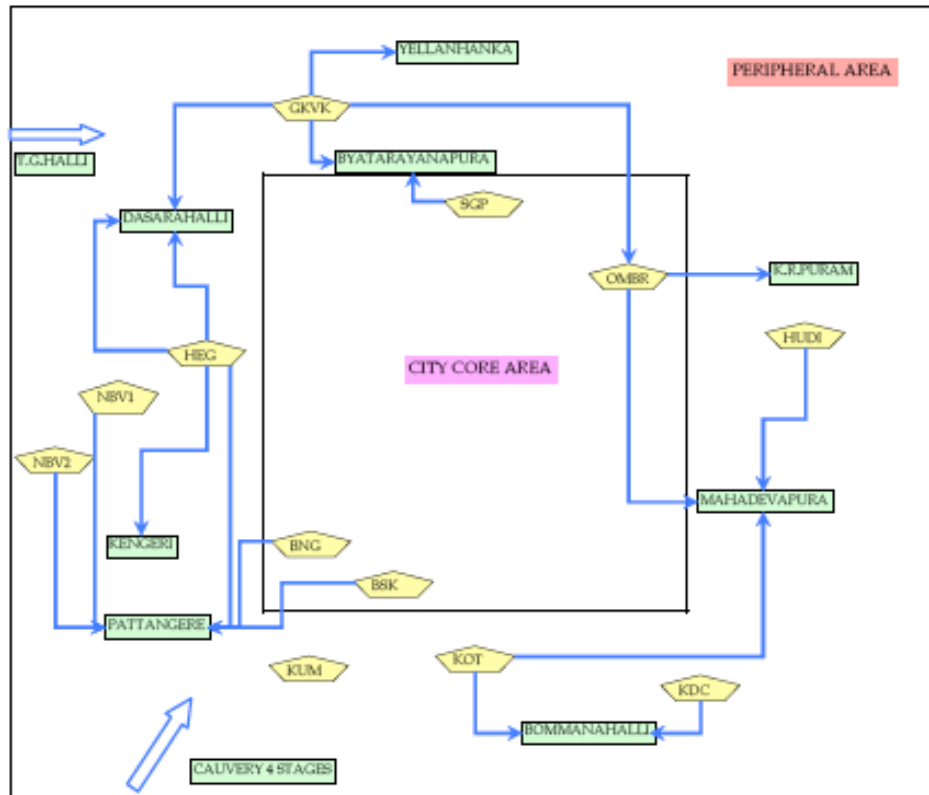
5.1. Introduction

By the late 1990s, around the time that Bangalore was being swept up in the global Dot Com boom, Karnataka's political leaders had come under mounting pressure to address the multiple infrastructure shortcomings that had befallen the city. There was particularly strong incentive to extend piped water and sanitation to the city's rapidly urbanizing peripheries. While core areas were being supplied with approximately 600 MLD of piped water by the Bangalore water board sourced largely from the Cauvery River at the time, peripheral areas still depended almost exclusively on erratic and rapidly diminishing underground aquifers. The time had come to design and execute a water supply scheme to cater to the next frontier of Bangalore's globalizing economy. The city of the future, after all, lay not at its core, but at its expanding outskirts.

In 1998, the state government hired consultants to investigate the technical feasibility of building a new water distribution network in the municipalities surrounding the city. Such an investigation came at an opportune moment: this was a period that was witness to a flurry of international lending activity in sectoral and policy-based projects in Karnataka as discussed in the previous chapter. Only a few years earlier, the Japanese bilateral cooperation agency had agreed to finance a bulk supply project upstream on the Cauvery (the "Cauvery Stage 4, phase I" scheme) to put an additional 270 MLD online to cater to Bangalore's rising demand. It would later agree to finance a second phase supplying a further 500 MLD to the city in the early 2000s. If things went according to plan, the completion of the distribution network to service over a million people in Greater Bangalore would coincide with this new influx of water (Figure 30).

But shortly after these early investigations, the state government abandoned the Greater Bangalore Water and Sanitation Project, or "GBWASP" as it came to be known, on grounds of a lack of finances. In fact, *any* financing option that required a government grant or guarantee was also promptly dismissed. This move signaled that fiscal restructuring had indeed taken hold; as discussed in the previous chapter, state grants and guarantees alone were no longer considered viable options for financing urban water supply. The fiscal crisis of the late 1990s, and the various forces that had aligned at that particular conjunctural moment to emphasize "self-sufficiency" and "resource mobilization", had wrought significant change on urban water policy. So much so, water had become the prime target of a new discursive and disciplinary regime that sought to instill standards of efficiency, cost recovery, and private sector-like behavior in its management. Crucially, this was also a regime that retained and intensified the intergovernmental hierarchies and power imbalances inherited from a previous era of state-led development.

Figure 30. Engineering design for GBWASP based on Cauvery 4th stage scheme



Note: Blue arrows indicate direction of water flow; yellow pentagons are ground-level reservoirs, and green rectangles are municipalities. *Source:* USAID (2003: 38).

It was not until USAID's FIRE-D arm entered the fray in 2003 that GBWASP was finally resurrected; this time with a "market-based financing framework" (USAID 2003: i). Rather than sourcing funds purely from the state government, in the new framework, a proportion of the project's budget was to come from debt from the capital market. And rather than being required to pay only for the one-time connection fee and for water they consumed like their neighbors in core areas had done for decades, peri-urban residents were now invited to be "stakeholders" in the assets created for them. The storage tanks, the energy pumps, and the network of large and small pipes supplying their homes were all physical assets that they were invited to buy in to, and thereby assume a "stake" in the quality of services delivered to them. To this end, peri-urban residents were categorized as relatively richer or relatively poorer according to the dimensions of their property, and a slab system of mandatory cash contributions for the cost of capital and penalties for non-payment were devised and levied accordingly.

In this chapter, I examine the disciplinary logics, forms of calculation, and technologies of debt repayment and cash payment embedded in the "new and improved" version of Greater Bangalore's piped water project, a case study that I suggest exemplifies the broader political-economic shifts discussed in Chapter 4. I argue that in its resurrected form, this piped water project was not only (or primarily) about improving water access to the peripheries, let alone providing access to the peri-urban poor, contrary to the framing in project narratives. By 2007 when I started my fieldwork—several months after the project was supposed to have been

completed—very few households at the periphery had started receiving water, even though a sizeable sum of money had been amassed from residents. Only a select number of large customers that had previously signed contracts directly with the water board were being supplied. Two years later, on my last fieldwork visit there, I learned that although a few wards were finally being supplied (no slums as of yet), the majority (over 80% of households according to a Times of India (2010) report) is still without access. As I show below, there was virtually no correlation between the amount of cash collected from households in a particular ward, the length of pipeline laid, the number of connections provided, and the supply of Cauvery water to that area.

These disjunctures are not merely “gaps” between the intended goals of providing water and the messy realities of implementing a large infrastructure project. There is something more fundamental at play here: in its resurrected form, I argue that this project’s framework was primarily a means of producing and establishing a precedent for the formation of market-mediated subjectivities in citizens and the local state. In other words, the logics and financial instruments deployed within the project—the municipal bonds and beneficiary capital contributions—were not primarily intended as mechanisms to improve water access and distribution *per se*, but can be read as technologies of rule that were designed to redirect the worldview and conduct of subjects in line with a neoliberal ethos. For scholars situated within a Foucaultian tradition, neoliberalization is not only a regime of macro political-economic restructuring, but also a form of subjectification in which an assemblage of micro practices or “technologies” of rule—e.g. pricing tools, audits, credit scores, surveys, etc—are deployed to structure human action in line with broader the goals of reform. However, whereas scholars are typically concerned with how such technologies are used to internalize practices of economic citizenship (e.g. Ong 2006), I contend that GBWASP’s political technologies were directed at citizens *as well as* local governments—much like the Nirmala Nagara program discussed in Chapter 3.

Technologies of rule necessarily involve a significant amount of labor by experts to produce what Bruno Latour (1987: 68) calls “inscription devices”, displays of technical text that provides the semblance of impartiality and authoritativeness for a set of expert interventions. In this chapter, I train a lens on two inscription devices that were regarded as justification for the project’s technologies of payment: USAID’s financial viability analysis (2003) and the World Bank’s (2005) willingness to pay survey of 8,000 households in Greater Bangalore. Rather than taking these as objective statements of a set of indisputable “truths”, I suggest that these are texts that should be read for how they discursively construct a prevailing set of problems that are amenable to being remedied. They should thus be analyzed for their interpretative and translative processes and the implicit assumptions and silences they introduce in proposing a set of remedies.

Importantly, the process of justifying remedial interventions and rendering “reality into a calculable form” (Rose and Miller [1992] 2008: 65) is never uncontested, but is always fragile and prone to reversal and undoing. I thus demonstrate in this chapter that a significant part of establishing a precedent for market-mediated subjectivities lies in the art of building consensus—in securing as wide a range of institutional allies across government, civil society, and the private sector as possible. To this end, project proponents recruited a truly impressive array of state

agencies, international and domestic consultants, international lenders, banks, rating agencies, and non-governmental entities in order to enhance their visibility and gain sanction for the proposed policy changes. The goal was to showcase the project as a model of market-based reform; water supply, and whether it was even feasible or not given prevailing conditions, was ultimately of secondary importance. My findings also show that this consensus building process was not easy or smooth. Contestation in this case came from both outside the group of allies as well as inside of it. The establishment of hegemony among governmental experts, in other words, is itself is a delicate operation; expert alliances are often far more multivocal than depicted.

In the rest of this chapter, I start by elucidating the type of problem analysis the project narrowed in on once it was revived. I show that whereas in its earlier form, problem analysis rested on issues of demand and supply growth, in the new version, although these projections were debated and revised, there was significant emphasis on justifying the debt-bearing capacity of municipal entities and identifying mechanisms for instituting financial discipline in municipal functions. The project's financial viability, more than its water resource feasibility, became the focal point for deliberations by project proponents, much to the detriment of its outcomes. Next, I turn to some of the governmentalities at play in the project, drawing out how the lack of discipline and willingness to shoulder financial responsibility by local governments and citizens were framed as behavioral dispositions that technologies of payment and their inscription devices sought to rectify. I also explore the processes of consensus building and alliance formation that were designed to counter dissent, as well as the challenges that the project could not contain. Before closing, I turn to the material realities of piped water access and payment in Greater Bangalore several years after the project was implemented in order to assess "who gains and who loses (and in what ways)...from particular processes of socio-environmental change" (Heynen et al. 2006: 10)—a core focus of political ecological analysis. I focus on the financial burdens borne by households and the sharp disconnects between geographies of payment and geographies of access. The outcomes of this case study reveal the profound limits of a project so singularly focused on financial closure. They also demonstrate that one of the heaviest causalities was a lack of accountability given the uneven geometries of power underlying decision-making. This discussion will set the stage for examining in Chapter 6 the role of grassroots neighborhood associations in opening up channels of communication and contestation with the state, and in renegotiating and appropriating the project's technologies of payment.

5.2. Problematization: From High Modernism to Market Discipline

As already introduced, by the late 1990s, engineering experts had begun to investigate the feasibility of extending surface supply from the Cauvery River to Bangalore's rapidly expanding peripheries. Much like the water schemes that had preceded it (see Chapter 2), in its original conceptualization, the Greater Bangalore project was like any other. It embodied what James Scott (1998: 4) might describe a high modernist way of "seeing"—"best conceived as a strong, one might even say muscle-bound, version of the self-confidence about scientific and technical progress, the expansion of production, the growing satisfaction of human needs...." The scheme was ambitious—attempting to achieve the economies of scale afforded by a centralized network, and thereby serve over three million people in eight peripheral municipalities by 2021 (in 2008, the population of the peripheries was estimated to be around two million). At the time, less

capital-intensive or resource-intensive options were not considered—an oversight that one BWSSB engineer described to me retrospectively as “a psychology of not thinking about food for future generations when you have food to eat now”.⁸⁹ It was a prevailing and entrenched mindset that no longer holds as much sway in the Bangalore of today. As I was wrapping up fieldwork in 2009, I discovered that as opposed to the late 1990s, there is far more discussion currently about the need to develop resource options “beyond the Cauvery” such as rejuvenating lakes and other surface bodies, recycling water and installing dual (grey water and freshwater) taps, and harvesting rainwater. Today’s more diversified approach to water management in the city, however, was not as apparent in policy-making at the turn-of-the-millennium, when most decisions about the Greater Bangalore project were made.

As it turned out, this capital-intensive piped water scheme was not originally approved. The cost estimate (Rs. 4 billion for water supply and sewerage at 2001 prices) was not something that an increasingly fiscally “correct” state government was willing to bear given the prevailing political-economic climate. After being on the back burner for several years, in 2003, a pro-reform Chief Minister’s government approached experts involved in Indo-USAID’s “Financial Institutions Reform and Expansion-Debt Market Component” (FIRE-D) program to develop a market-based financing framework for Greater Bangalore’s piped water project. FIRE-D was already involved in a number of municipal water projects in the country as I discussed in Chapter 4—all of which leveraged the municipal bond market rather than relying on state funds alone. Following in a longer tradition of market borrowing by US cities, FIRE-D projects were designed based on the belief that “scrutiny by the market...focuses attention on municipal performance which, in turn, provides incentives for improved management of municipal finances and services” (USAID 2004b: 8). Once it became involved in GBWASP, then, FIRE-D both reemphasized and refocused “the problem”.

In the new version of the project, the need to meet the growing water demands of industry and Greater Bangalore’s soaring population continued to be emphasized⁹⁰, but this time, a different type of problematization absent in previous studies took center stage. A FIRE-D (2003: 104) report contracted by the state government to analyze the feasibility of the Greater Bangalore project suggests that a market-based financing scheme for the proposed water project would bring in “fiscal discipline in municipal operations especially for debt servicing” and that the “framework will influence the local bodies to move towards sustainable urban reforms”. It also asserted that the “finance framework envisaged under this project will *establish a precedent in the state* and may lead to reduction of pressures on the State Government for resources for urban infrastructure and result in improved infrastructure through replication of similar projects” (USAID 2003: 27, emphasis added). Finally, the report urged that the Bangalore water board, and not the local governments of each participating municipality, take charge of water management in the peripheries since the former institutional set-up—even though in conflict with the constitutional amendment for decentralization—was more “financially viable” in the long-run (ibid: 51). Importantly, the report also suggests that in the event that the water board faces “administrative constraints” in servicing the peripheries, the management of water should be “outsourced” (ibid: 57). This was only the first in a series of subtle and not so subtle moves by

⁸⁹ Interview with BWSSB engineer on August 18, 2009

⁹⁰ But as in the previous rounds, nowhere does the USAID report weigh the pros and cons of different technical and resource options for water supply.

project proponents to privatize water under the rubric of GBWASP. I discuss below how privatization became the most contentious aspect of this project—provoking citywide protests until decision-makers ultimately decided to cancel the proposal.

The lack of “fiscal discipline” in municipalities, the urgency to relieve the overwhelming “pressure on the state government”, and the importance of achieving “financial viability”, then, rather than the complexities of access or the planning and demographic realities of Greater Bangalore, were the prime focus of the USAID report. A key water-related oversight, for instance, is the assumption that 135 MLD of water from Cauvery Stage 4, phase I would be “reserved” for the peripheries (ibid: 37) when, in reality, demand for water in the core was rising exponentially and the interconnected nature of the network suggests that water cannot, in fact, be “reserved” in this manner. Other aspects that reveal how removed this financial analysis was from physical reality includes a lack of recognition of the settlement characteristics of Greater Bangalore, where a majority of areas are organically developed revenue layouts that make grid extension particularly challenging and costly. On top of this oversight, the recommendation of piloting 24x7 continuous pressurized supply in such a context is especially infeasible. Such a recommendation may well be in line with one size-fits-all “best practice” models of urban water supply proposed by international development agencies, but does not reflect the resource, political, and institutional circumstances of Bangalore’s context today.

Regardless of these lacunas, it was this skewed problem analysis and framework consonant with prevailing fiscally focused prerogatives that allowed the project to take off the ground. The project’s new focus on fiscal discipline also ensured the indispensability of certain key actors and institutions “doing” the disciplining—primarily senior bureaucrats in the Government of Karnataka and at KUIDFC. As Chapter 4 discussed, the latter had become the main entity shaping the language and decision-making in urban infrastructure projects and reforms in Karnataka by the early 2000s. Meeting minutes from initial deliberations on the project reveal that KUIDFC played a pivotal role in the decision to opt for the FIRE-D’s model. Project decision-makers from KUIDFC, the state government, and the Bangalore water board, quickly embraced the notion of the need for market discipline, opting for bond financing for the capital works rather than traditional routes offered by the Housing and Urban Development Corporation (HUDCO). HUDCO is a public sector institution that typically finances infrastructure and municipal service projects in Indian cities. Rejection of its loan offer was based on the fact that HUDCO would have required the backing of a state government guarantee. Instead, as stated in meeting minutes from 2004, proponents firmly believed that:

...the GoK [Government of Karnataka] was not in a position to offer [a] guarantee. It was felt that the bond route now formalized would pave way for further initiatives in finding resources without the support of [a] government guarantee for various infrastructure projects and hence this alternative should be instituted (GoK 2004a: Item 6)

In another meeting of the project steering committee, the primary objective of pursuing the bond route was explicitly rationalized as the following:

The committee felt that the present requirement was to institute a funding mechanism for infrastructure projects which would go a long way in reforming urban local bodies and also enforcing discipline on their management of finance (GoK 2004b: Item 4).

Such statements are repeated frequently throughout the many project scripts published between 2003-2005 suggesting that from the start, decision-makers were determined to use the Greater Bangalore piped water project as a financing model to influence future policy actions related to water infrastructure. More than a preoccupation with enhancing water access *per se*, my careful reading of the various deliberations suggests that at all cost, the project's new framework was designed with an eye to disciplining the fiscal behavior of municipalities, and rendering them more entrepreneurial and less dependent on the state. In the following section I detail how this objective was translated into a regime of subjectification that targeted municipalities and citizens alike, and the forms of inscription that provided the needed textual justification.

5.3. Governmentalities of Payment and Repayment

“The ‘representation’ of that which is to be governed” suggest Rose and Miller ([1992] 2008: 65) “is an active, technical process”. A huge amount of labor by governmental experts goes into representing reality in a manner that can be diagnosed and acted upon. From macroeconomic statistics such as unemployment figures, to micro-statistics such as the ability of a city to bear a debt burden and the willingness of certain groups to pay for a service—these are all narratives and forms of inscription and calculation that are devised in such a way so as to make a favored type of governmental interventions *possible*. Crucially, the form of inscription determines the extent of power that experts can wield over a population being targeted.

A close reading of two forms of inscription in GBWASP lays bear the politics of representation: (1) the financial viability analysis conducted by USAID experts in 2003 to justify commercial borrowing as part of the pooled finance framework, and (2) the willingness to pay survey carried out by experts at the World Bank's Water and Sanitation Program (WSP) in 2004-05 to institute the beneficiary capital contribution policy. I focus on these two documents in order to illustrate a particular type of financial gaze that was directed at codifying subjects and conducting their subjectivity and behavior. I show that although these forms of calculability are framed as scientific and based on neutrally derived facts, their subtext, assumptions, and insinuations are all deeply political with far-reaching implications for water policy-making today.

Bond repayment and the financial viability analysis

As discussed in the previous chapter, one mechanism of USAID-FIRE-D infrastructure projects is “pooled finance”. Previously piloted in the construction of sanitation infrastructure in Alandur in Tamil Nadu for another USAID project (USAID 2005), pooled finance resembles the United States bond bank. By pooling finances, several smaller, local municipal entities can borrow money from the market. USAID experts claimed that pooled finance has the advantage of being able to ensure that smaller, less credit worthy cities can gain a favorable credit rating on

their bonds—an alphanumeric score that communicates the degree of risk involved to lenders (USAID 2006).

In GBWASP’s case, municipal revenues from eight participating cities were “pooled” in a trust known as the Karnataka Water and Sanitation Pooled Fund (KWSPF) managed by KUIDFC. In managing this trust, KUIDFC served as a financial intermediary between municipalities and the capital market: it borrowed from the market on behalf of cities and on-lent to them. In June 2005, KUIDFC floated one thousand tax-free municipal bonds each valued at Rs. 1 million (a total of Rs. 1 billion), an annual interest rate of 5.95%, and a lifetime tenure of 15 years to finance Greater Bangalore’s water system (USAID 2006). This borrowing was backed by a 50 per cent guarantee on the principal amount from the US Government to protect investors from defaults by cities and to reduce the cost of borrowing and the term of the loan. In taking advantage of the pooled financing route proposed by USAID, bonds accounted for 29% of the water project’s total budget (Table 5).

Table 5. Budget for water component under GBWASP

Source	Amount (in Rs. 10 million)	Share in total budget
Beneficiary capital contributions	119.45	35%
Market borrowings through bonds	100.00	29%
Grants from the Government of Karnataka	74.28	22%
MegaCity Loan from Government of India	46.82	14%
Total (2003)	340.55	100%
Cost escalation	106. 51	
Revised total (2007)	447.06	

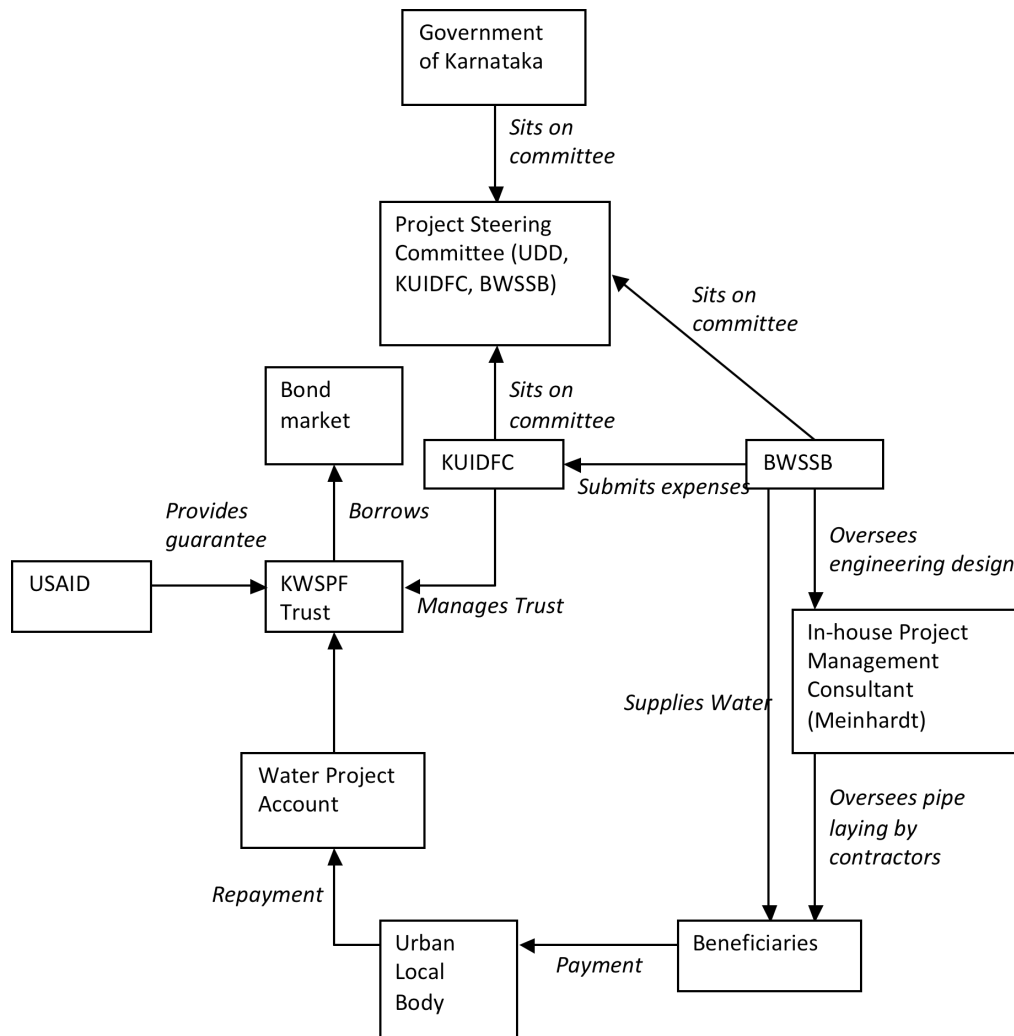
Source: USAID (2003)

Crucially, in order for the bonds to receive an “investment-grade” (i.e. good) credit rating of LAA (SO), certain safety mechanisms—euphemistically termed “credit enhancements”—were instituted to ensure debt servicing by the borrowing municipalities. This is what the “SO” appended to the credit rating (“structured obligation”) signifies. The credit enhancement measures built into the GBWASP case ensured that municipalities maintained little autonomy in expenditure and revenue decision-making. As technologies of rule, these mechanisms were deployed to structure the repayment behavior of participating municipalities in three main ways depicted in Figure 31.

First, all cities must maintain an account into which they escrow (or mandatorily deposit) 40% of their revenue surplus (e.g. from property taxes) every year in order to maintain a pre-determined debt service ratio. These amounts are, in turn, transferred to the trust fund for debt servicing. Second, to ease investor fears, a bond service fund must at all times be maintained and hold a buffer amount of Rs. 255 million. In case of default, this buffer must be used to service debt. Finally, if necessary, the bond service fund must be replenished by diverting any inter-governmental transfers to local governments—transfers that are currently mandated by

decentralization legislation. Through these mechanisms, FIRE-D ensures that local bodies repay debt from the market for this water project (called “priority debt”) before any other type of debt, and further diverts property tax revenues and intergovernmental transfers towards debt repayment.

Figure 31. System for bond repayment and cost recovery



Source: Ranganathan (2009: 56)

Sifting through the dense empirical details of bond financing and the discursive constructions pertaining to market discipline elucidates just how significantly such market mechanisms intend to shape relations between, and the subjectivities of, different scales of government. Jessop’s relational understanding that actions should not be attributed to “the state” as a singular subject but should be understood as the emergent and complex result of what rival “states within the state” do to each other is of particular use here (Jessop 1990: 9, cited in Rankin 2001: 21). It is within the reforming state after all that the deployment of technologies of rule in the contemporary moment is so marked, a phenomenon that Foucault (2003 [1978]: 244) referred

to as the “governmentalization” of the state. In this case, siphoning away state government transfers for debt servicing that had previously been mandated by decentralization legislation undermines the very premise of decentralization (CASUMM 2006). As I have argued with collaborators elsewhere, investor concerns are therefore honored before all else, and as a result of market-based models, higher levels of government can potentially jeopardize the ability of local governments to fulfill their role of ensuring other needed public services (Ranganathan et al. 2009). Although it is true that water and sanitation are urgent needs of Greater Bangalore, as alluded to before, it is not clear that centralized, capital-intensive technology is best able to meet those needs. In this case, the re-enactment of a high modernist water project through neoliberal logics not only locks in a particular technological and resource pathway, but it also does so at significant cost for local governance.

Such financial disciplining enacted within a market-oriented financing framework must also have the numbers to justify it. USAID-FIRE-D experts crafted a financial viability analysis to assess whether the participating municipalities would be able to bear this debt burden and the “credit enhancement” measures needed to ensure viability. Typically, calculations for such an assessment involve adding up the expenditures and revenues of a city over a *historic period* and determining how much operating surplus (i.e. the difference between expenditures and revenues) the city can be expected to have from year to year. Such historic trends are then extrapolated into the future to predict what the future operating surpluses are likely to be, and how much of a burden the debt will be.

This is easier said than done. A report by the Center for Budget and Policy Studies and personal interviews I had with municipal budgets expert, Sharadini Rath, reveals that municipal budgets in Karnataka are opaque and difficult to read; it is not uncommon for revenues and expenditures to be arbitrarily estimated and for double counting to occur because of the way data is maintained. Even for a trained eye, the interpretation of municipal budgets in many Indian cities can be difficult because of the lack of standard definitions, errors in calculations, and misestimates that are carried through from year to year. Data can thus be highly unreliable.

Disregarding these realities, the USAID-FIRE (D) report nevertheless attempted to render municipal budgets legible in ways that served its ultimate purpose of recruiting the municipalities into a regime of debt financing. Thus for the eight participating municipalities, the USAID report optimistically determined that “across the ULBs, the operating surpluses indicate efficient management of resources” (USAID 2003: 70) based on a comparison of revenues and expenditures for the financial year 2002-03. The fact that three of these cities (Yelahanka, Dasarahalli, and Kengeri) have *negative* net operating surpluses, even by the USAID’s own calculations (Table 6), is quickly wished away by a section on promising urban sector reforms in Karnataka that herald large *future* increases in revenue. That is, to ensure continued financial viability into the future, USAID made a number of assumptions, including a 35% *increase* in property tax revenue based on property tax reform for the first year and 10% increases thereafter. The justification for selecting these rates was that “with ULBs realizing that sustenance is dependent on its ability to mobilize own sources of revenue, it is *expected* that the demand and the collection performance will improve *over time*” (ibid: 64, emphasis added).

Table 6. Net operating surplus in 2002-03 for GBWASP towns

Project Town	Net operating surplus (revenues -expenditures) in Rs. million
Yelahanka	-4.75
Byatarayanapura	40.01
KR Puram	45.38
Mahadevapura	19.16
Bommanahalli	26.00
Rajarajeshwarinagar	14.22
Kengeri	-1.16
Dasarahalli	-2.97

Source: USAID (2003: 70)

These are arbitrary and subjectively derived assumptions. As discussed in Chapter 4, credit ratings for Indian cities are often provided on the basis of conjured-up future scenarios that are wholly open to interpretation, not on robust historical analyses. In contrast, Rath and Rao's (2006: 19-20) detailed study of the very same cities point to the "the utter chaos in accounting" and the fact that frequently, "bad revenue estimates lead to bad expenditure estimates". Rath and Rao further find that except for Byataranapura, no ULB was capable of repaying the GBWASP loan without being in the red given their expenditure histories (Rath and Rao nd). The important point to note is that by glossing over issues of data quality and the deeper systemic problems revealed by them, and by instead offering optimistic statements about municipal finances and repayment capacity to justify the technologies of repayment instituted, experts were ultimately able to enroll municipalities into this project.

In brief, my close reading of the financial viability analysis exposes some of the rationalities underlying the numbers in FIRE-D's analysis. The assumptions underlying future projections about repayment capacity were naturalized and held to be common sense to the extent possible. Historical trends of loss and default were strategically underplayed, and the financial future was conjured up as remarkably hopeful to reassure investors (Tsing 2004). As an inscription device, the financial viability analysis rendered reality into a form which can be diagnosed, *and for which a diagnosis is possible* (Rose and Miller [1992] 2008). Such numerical analyses in the public realm, moreover, are not merely strategies for privileging particular projects, but as Porter (1995: 182) puts it, they fundamentally "structure relations within bureaucracies".

Cash contributions and the willingness to pay survey

If pooled finance and the financial viability analysis are illustrative of the data manipulations, forms of inscription, and disciplinary logics and technologies shaping inter-governmental relations, then the technology of beneficiary capital contributions reveals efforts to shape citizen-state relations.

To ensure cost recovery in the project, 35% of the total budget (see Table 5) is expected to come from "beneficiary capital contributions", or one-time, upfront cash payments by

households. It has become increasingly common for development agencies to require beneficiaries to contribute to project costs either through “cash or in kind”. This has been particularly true for small-scale and community-based projects in rural areas where villagers are encouraged to donate land, provide labour, or collect funds for water and sanitation infrastructure. The widely cited Orangi Pilot Project in Pakistan is an example of communities taking the initiative to raise their own funds for sanitation projects and is lauded as a “best practice” case in community self-help (e.g. Hasan 2008). Critical scholars such as Jaglin (2003) and Bakker (2008) warn, however, that euphemisms like “self-help” obscure the implications of leaving the poor to their own devices.

GBWASP project documents deploy an equally problematic construct: that of “citizen as stakeholder”. Specifically, an information packet published by the state government describes the stakeholder role as the following:

The project has a very large capital expenditure with the primary benefits of this expenditure flowing to the households that take the connections. The burden has to be, therefore, shared by the beneficiary citizens to some extent. In this process, *the status of citizens is elevated to that of stakeholders* which will facilitate their participation in the management of the assets created under the project (GoK 2005a, emphasis mine)

The “stakeholder” is a popular trope in the current urban reforms agenda in India. According to prevailing discourse, not only are the city’s service agencies defined as stakeholders, but citizens, too, are invited to be stakeholders (Nair 2005). The use of the term ‘stakeholder’ in public policy rhetoric is not unique to the Indian context; most recently, it has been associated with the moralizing discourses of the New Labor under British Prime Minister Tony Blair’s regime (Rose 1999). The term’s use in the UK, much like in India, implies that citizens must take an active role in the public services rendered to them since the government can no longer be relied upon for its welfarist role. As Janaki Nair (2005) discusses, in Bangalore, increasing reference to citizens as “stakeholders” accompanied the spread of private sector-inspired approaches to governance that reconstituted citizenship rights as customer rights. In the case of GBWASP, “stakeholders” are imagined to be citizens who, by virtue of paying for water assets, are expected to be empowered to participate in the operation and management of those assets, and thus “be assured of sustainable service delivery” (GoK 2005a).

Being a stakeholder, of course, comes attached with a price. After several revisions and recommendations made by a visiting World Bank team, a progressive slab system that ties cash contributions to property dimensions was ultimately settled upon. Because property dimensions are easily verifiable and income is not, experts rationalized that this metric served as a convenient proxy for income. Accordingly, the larger the property dimensions, the more cash needed to be paid up front, ranging from Rs. 2,500 for properties of less than 600 sq. ft (“the poor”), to Rs. 15,000 for those larger than 2,400 sq. ft (“the rich”). In the event of tardy payment (that is, after July 31, 2005), citizens were also required to pay an additional monthly penalty ranging from Rs. 50 to 300 per month, again, depending on property dimensions (Table 7). According to project proponents, this measure was taken in order to pressure beneficiaries into contributing to the project. Following protests by pro-poor groups in the city of the

insurmountably high amount for financially weaker households, decision-makers waived the payment requirement for those believed to be the poorest, i.e. those living in properties of 600 sq ft or less.

Table 7. Beneficiary capital contribution structure

	Charges Per Property Size (Rs.)			
	< 600 ft ²	600-1200 ft ²	1200-2400 ft ²	> 2400 ft ²
Residential	2,500 (now waived)	5,000	10,000	15,000
Commercial	5,000	10,000	20,000	Rs 8/ft ²
Penalty per month after July 31, 2005	50 (now waived)	100	200	300

Source: (GoK 2005d)

Leaving aside for the moment the potential equity issue of charging peripheral residents for water when people in the core had not been required to pay; ignoring for the moment the pitfalls of considering property dimensions a proxy for income when the so-called rich are often no more wealthier than their neighbours in smaller properties, there is an important point to note here about the construction of the “stakeholder”. Financial participation by “stakeholders” provides an invaluable way to recover costs and meet funding shortfalls in the wake of fiscal rectitude policies in the state. At the same time, as a political technology, the manner in which the beneficiary contribution scheme was devised—while seemingly rational and backed by scientifically devised surveys—has much to say about how the state perceives and seeks to shape the subjectivity of its citizens. By instituting a monthly penalty, bureaucrats and BWSSB engineers much further down the chain of command, morally *anticipated* a tendency of non-compliance among the mostly lower-middle class revenue layout dwellers of Greater Bangalore who have been “used to getting everything free from the government...they have been used to not paying anything for water...now we must show them how to pay”.⁹¹ There are thus two types of constitutive rationalities at play in the design of the beneficiary capital contribution: on the one hand, it was intended that citizens be “elevated” to entrepreneurial, consumer-like stakeholders, and on the other, there was an expectation that citizens would resist payment, necessitating the imposition of a penalty threat.

In her study of pre-paid meters for electricity and water in neoliberalizing South Africa, for instance, von Schnitzler argues that the pre-paid meter was not only seen as a solution to cost-recovery, but also developed in response to a very specific political problem inextricably bound up with apartheid and its struggles. With a built-in mechanism to shut off utility supplies upon failure to pay, pre-paid meters were thought to correct for a historic “culture of non-payment” among poorer, Black township dwellers. Inscribed in the pre-paid meter are thus racialized “*scripts* that both prefigure particular users and entail injunctions to act in a particular way...indeed, it is based on the development of sociologies that *anticipate* users’ behavior. The process of producing a technology is thus not merely a mechanical process, but inherently social and moral” (von Schnitzler 2008: 912). In the case of GBWASP, I find that the political technology of cash contributions is also a microcosm of the larger shifting terrain of citizen-state

⁹¹ Interview with BWSSB engineer on July 29, 2009

relations in liberalizing India, where on the one hand, state projects insist on the consumerification of middle class citizens (Fernandes 2004), and on the other, entrenched socio-spatial and caste hierarchies and subjectivities continue to endure and shape those relations.

A 257-page report submitted by the WSP of the World Bank in 2005 titled “Demand for Improved Water Supply and Sewerage Services for Eight Urban Local Bodies of Greater Bangalore”, based on a survey of 10,061 consumers (approximately 8,000 domestic and 2,000 non-domestic), served as the inscription device for this technology of payment. The overarching goal of the report was to assess “whether consumers’ willingness to pay for improved services was high enough to ensure adequate recovery of costs of supply”, particularly since “the project envisages that the operation and maintenance of the scheme will be entrusted to a private O&M [operation and management] operator” (World Bank 2005: i). Specifically, the executive summary states: “The issue of cost recovery is closely associated with financial sustainability of the project and a study on this aspect would provide useful pointers to the nature of arrangements to enter into with the private O&M operator”.

To this end, the report undertakes a large survey of different types of consumers in Greater Bangalore (domestic and non-domestic) and their water consumption profiles, coping costs, willingness to pay, and even perceptions of the proposed privatization. It uses econometric methods to ascertain the significance of various independent variables in determining willingness to pay. It ends with recommendations on how best to achieve cost recovery and tariff design.

Senior bureaucrats in the Government of Karnataka considered this report to be authoritative; one even described it to me as: “the way projects need to be done today; how else would you determine a price for water?!”⁹² My close reading of the document, however, reveals certain troubling assumptions, flaws, and omissions in the analysis, as well as a much larger problem pertaining to how such reports “render reality into a calculable form”. More than serving as a basis for considering a variety of policy options, my reading suggests that this report was written in order to justify a *pre-determined* set of “solutions”. In other words, more than simply framing reality in a way that makes diagnosis possible, this inscription device framed reality in a way that makes *a certain kind* of diagnosis possible—that which is fixed on private sector participation and cost recovery. In short, this is a report that is starkly revealing of the machinations and politics underlying expert renditions of reality.

This report’s analysis of the “positive correlation” (ibid: vii) between existing coping costs for different households in Greater Bangalore and their willingness to pay for improved water service, and, in turn, the use of this positive correlation as justification for the amount of cash contributions mandated by the market-based piped water project is a case in point. “Coping costs” is a term used in practitioner circles to aggregate the monetary and non-monetary payments borne by households to supplement or stand in for utility-provided services. Typically, coping costs include costs incurred on digging a supplementary borewell, the recurring electricity costs to power the borewell, the cost of obtaining private water tanker service, and the cost of buying distilled drinking water. Middle class households in India can bear high coping costs because of the unreliability of utility supply and the various additional equipment such as storage containers, sumps, pumps, and water purifiers they might purchase to improve on water

⁹² Interview with ex-KUIDFC official, August 1, 2007

quality and quantity, as well as recurring costs they might pay on this equipment. In general, however, coping costs constitute a far greater proportion of average income for the poor than they do for the middle class.

The World Bank (2005) report dedicates one chapter to a detailed calculation of existing coping costs in Greater Bangalore based on its survey results. It aggregates both fixed costs such as investments made on borewells, as well as recurring costs such as additional water purchased from tankers. It tabulates these costs by income category (using the size of properties as a proxy for income) and finally, determines a total monthly coping cost by adding an amortized fixed cost to a recurring monthly cost (Table 8).

Table 8. Average coping costs by household category

Household category	Total coping cost per household per month (Rs.)	Water consumption per household per month (kL)	Cost per kL of water consumed (Rs.)
High-rises	723.5	16.7	43.3
Large plotted	457.9	17	26.9
Medium plotted	367.6	16.8	21.9
Small plotted	247.4	15.2	16.3
Low-income group plotted	84.8	6.7	12.7
Slums	52.9	7.9	6.7
Average	332.3	14.1	23.6

Source: World Bank (2005: 101)

Why was such a detailed analysis on coping costs carried out to arrive, finally, at an average figure of ~Rs. 20/kL (see bottom right cell of last row in Table 8)? The report provides the following justification:

Since the households residing in high-rise flats and in plotted houses above 600 sq. ft are currently bearing a cost of more than Rs. 20 per KL of water, it seems reasonable to argue that *most of these households should be willing to pay a water tariff rate of Rs 20 per kL for the new improved services* (World Bank 2005: 101).

The report argues, in other words, that because residents are *already* paying a certain sum of money to procure water on a day-to-day basis at the peripheries, it is “reasonable” to expect them to pay *at least as much* for improved services, both its upfront capital and connection costs and its recurring costs.

It is problematic to equate water charges with coping costs for several reasons. First, paying small amounts for water every day for “coping” is very different from being charged a lump-sum cost by the utility, even if, over a year, these are approximately the same. People’s time value of money—how much a rupee is worth today versus tomorrow—is a key determinant in affordability of alternative non-networked water and cannot be overlooked. Second, and more fundamentally, while the coping cost argument (“people already pay so much, so why not charge

them as much”?) is frequently invoked among development practitioners as I learned at the ADB, it is ethically questionable whether water prices for a networked service *should* be set at prevailing coping costs—especially if they comprise such a sizeable amount of monthly income.

The report tries very hard to prove, moreover, that coping costs are an explanatory variable in people’s *willingness* to pay for improved services. In the household survey, people were asked whether they would be willing to pay a certain quantity for improved, piped water service and whether they would prefer a private or public provider. A multivariate regression was then carried out to determine which explanatory factors are most significant in determining willingness to pay. The results of the regression analysis (see tables on p 131-139 of World Bank 2005) show that for all categories of households, although there is a positive correlation between coping costs and willingness to pay, the relationship is either very small or statistically *insignificant*. Rather than acknowledging these results, the report states in at least six different places that high coping costs tends to increase willingness to pay. Even though a footnote states “note that the relationship is not statistically significant” (World Bank 2005: 131), the executive summary insists “across household categories, there is a positive correlation between coping costs borne and willingness to pay for improved services” (ibid: vii).

Rather than coping costs, it is in fact the presence of a resident welfare association in the neighborhood that is both statistically significant *and* has a sizeable impact on the willingness to pay coefficient (see Tables 7.4 and 7.5 in World Bank 2005). In Chapter 6, I show that my own ethnographic findings support this econometric finding. Entangled in a longer history of struggle over services and land tenure in the area, neighborhood associations are indeed powerful and embedded forces determining people’s conduct of payment. In staying so focused on its attempt to prove the role of coping costs in payment behavior, however, the World Bank not only presents this relationship in a misleading manner, but it also neglects the cultural and political dimensions of payment conduct in the peripheries. Nevertheless, the recommendations of report were used to revise the payment technology in GBWASP. Based on the assumption that so-called wealthier households bear more coping costs and are more willing to pay for water services—and also the recommendation that the cash contribution policy needed to be downwardly revised so as to recruit as many “stakeholders” as possible—the system for cash payment was set according to Table 1 above.

To summarize, this section has considered two payment technologies deployed in the Greater Bangalore water project—municipal bonds and beneficiary contributions—as well as the calculative rationalities inscribed within them. I turn next to the process of consensus building that was so essential for pushing these technologies through, as well as for attempting to win support for water privatization.

5.4. The Art of Building Consensus

By early 2004, most major decisions around the Greater Bangalore Water and Sanitation Project—and most other internationally supported reform projects in Karnataka during that time—were being taken by a core group of senior bureaucrats with a shared language and cultural appreciation for neoclassical economics and market-oriented governance. This group consisted of officers from the urban development and municipal administration departments of

the Government of Karnataka, as well as from KUIDFC and the water board. It was this network of powerful personalities across four major government departments that shaped major policy moves in the project, including bond financing, beneficiary contributions, and the attempted privatization. One member described this group of bureaucrats to me in a personal interview as: “We were part of what I call ‘the urban dream team’...it was happenstance that we came together...we did a lot of what you’re looking at. In about 12-13 months, we pushed and got things from a wish list to actual projects.”⁹³ In this section, I show that ability of governmental projects to get off the ground—to evolve from a “wish list” to reality—is not so much a result of proper implementation as it is about establishing and sustaining a set of relationships. As David Mosse (2005: 130) argues in his ethnography of aid policy in India:

...project implementation is not only (or primarily) about executing policy, or even putting schemes in place, *but a matter of sustaining a set of relationships* that secure a person’s identity and status, and which are a precondition for action at every level. Effective relationships are necessary to win support, sanction the flow of resources, build reputations, trust and reliability; to fend off the arbitrary judgment (emphasis added).

It is also through this network that a number of other allies were recruited into the project in order to secure both reputation and win support. Included were several international agencies—specifically, three different arms of the World Bank (its lending arm⁹⁴, the WSP, and the International Finance Corporation or IFC, the private sector advisory arm)—as well as a number of consultants, credit rating agencies, and a legal advisor for the privatization contract.

Plans for privatizing the operation and management of water distribution for Greater Bangalore were first discussed in late 2003. Minutes from a December 15, 2003 meeting and email correspondence in January 2004 circulated internally indicate that project decision-makers had approached experts at the World Bank’s WSP for advice in structuring private sector participation under the project (GoK 2003a). WSP experts, however, urged the government to retain two separate consultancies for the World Bank: one to conduct a willingness to pay survey and establish a demand curve for pricing water, and a second for a private sector transaction advisor (namely the IFC) to weigh options for privatization. Structuring two separate consultancies would avoid a “conflict of incentives” (GoK 2004b: 23) between the World Bank’s two operational arms.

The IFC was thus hired in 2004 at the cost of half a million dollars to carry out research and recommend a privatization option. In a due diligence and strategic report it submitted, the IFC suggested that a seven-year delegated management contract would be the most feasible and least risky option for the private investor, and recommended a water tariff increase of 87% above current tariffs to cover additional capital expenditures incurred by a thus far unidentified private company. The suggested tariff increase was in addition to the beneficiary capital contribution already being proposed at the time (BWSSB 2006; IFC 2005). As I discuss below, this proposal

⁹³ Interview with ex-KUIDFC official on August 1, 2007

⁹⁴ The World Bank is now lending for the sewerage component of the project to the tune of \$83.5 million. This is a late addition to the World Bank’s Karnataka Municipal Reforms Project (KMRP), which had simultaneously been under negotiation for several years (World Bank 2006).

was hotly debated and resisted both by citizen groups across the city as well as the water board's own management.

The recruitment of a number of allies in the project is revealing of Mosse's (2005) contention that projects are primarily about establishing and fostering institutional relationships, and using these relationships to secure identity and status. This was particularly true in the case of KUIDFC's relationships with a variety of institutions. It sought to secure visibility through the market-based finance framework in GBWASP, which was exactly what it needed to capitalize upon the momentum around neoliberal reforms in the country, and win support from the Government of India. As one member of the decision-making committee told me, reflecting back on the project:

This GBWASP was truly our high point. Every aid agency in India practically had a role...no-one wanted to be left out! It made sense for me to get them [the World Bank] into GBWASP because then I could get them to fund KMRP. USAID came in and said we would do credit rating. World Bank said we will do grant funding for establishing a demand curve. And we got them to fund the sanitation component. World Bank agreed because the terms were so heavily loaded in our favor. And USAID got us a lot of visibility in Delhi. I couldn't have gotten my bonds through but for the fact that you couldn't have an urban water seminar without KUIDFC (Interview on August 1, 2007).

The centrality of KUIDFC to the performative arenas of water reforms—the publicized seminars and workshops, the boardrooms of major international financiers, the “best practice” case studies—thus helped the institution to further its agenda and allay any doubts. And external institutions were leveraged in strategic ways to accomplish this. For Jayati Ghosh (1998: 180), in the context of India's liberalization, the state has attempted to “seek forms of external legitimization, whether through the appropriation of foreign financiers or the perceived discipline of international markets”. Backing by prestigious donor institutions provided reassurance of the project's viability to all doubting parties.

This story differs markedly from the Latin American experience of water privatization that scholars have frequently attributed to forced structural adjustment conditionalities (e.g. Hall and Lobina 2004; Loftus and McDonald 2001). In Bangalore, there was no external agency dictating to the Government of Karnataka and no tied aid mandating privatization. Rather, it was the powerful personalities in KUIDFC and the state government that took these initiatives. And they did so by ensuring sufficient room to maneuver. For instance, although World Bank negotiators in 2005-06 attempted to slip water privatization in as one of the loan covenants for the Karnataka Municipal Reforms Project, Government of Karnataka negotiators resisted, requiring that the loan come through regardless of whether they actually succeeded in privatizing water.⁹⁵ Reading the subtext of projects like GBWASP through interviews and behind-the-scene meeting minutes reveals that neoliberalism is not the natural and inevitable outcome of unleashed market forces. The approach taken here, instead, accords analytical priority to the contingent and contested processes through which neoliberalism becomes the established system of rule in a particular time and place.

⁹⁵ Interview with senior bureaucrat on July 11, 2008

Allies were recruited not only from international agencies, but also civil society. Anticipating resistance by citizens to tariff increases, the cash contribution policy, and the proposed privatization, the group of bureaucratic allies decided that what was now needed was a civil society partner that could win the consent of the residents. After all, all the specialists in the world were not going to be able to perform one vital task: encouraging Greater Bangalore's residents to *pay* for this project. To this end, a non-governmental organization called Janaagraha, a "citizen's movement committed to the practice of participatory democracy" (Janaagraha 2005: 2), was hired in 2005 to encourage citizen awareness and participation in the cash contribution policy, and acceptance for the proposed private sector management contract. By that time, the organization had already established a prominent reputation both within and outside Bangalore, particularly because its founders played instrumental roles in the city's private sector-led governance experiments of the late 1990s-early 2000s. Specifically, it was recruited to design and implement an institutionalized model for citizen's participation in the project that could be replicated throughout India in similar capital-intensive projects.

In May 2005, it signed a memorandum of understanding with the Government of Karnataka for implementing its Participatory Local Area Capital Expenditure or "PLACE" program. PLACE envisaged the creation of a structured citizens' platform for participatory decision-making in order to motivate citizens to contribute to the capital costs of the project. Other goals of participation were to ensure regular interactions with the service provider, police illegal connections and pilferage, monitor service quality levels, and create consensus for possible private sector participation in the distribution of water to customers.

For Gramsci (2000 [1971]), "the exercise of hegemony...is characterized by the combination of force and consent variously balancing one another...Indeed one tries to make it appear that force is supported by the consent of the majority, expressed by the so-called organs of public opinion." He argued that whereas force consists of relations of power and domination exercised by the state and juridical apparatus, consent comprises relations of power cultivated in the realm of civil society. Force and consent, much like the state and civil society, are thus inseparable in the operation of hegemony. This definition of hegemony is useful in interpreting how GBWASP embodied both coercive aspects of rule—as in the disciplinary mechanisms in the technologies of payment delineated above—as well as consensual relations of rule as seen by the recruitment of Janaagraha and its PLACE program.

PLACE was far too short-lived to make any concrete assessments about its actual achievements. In 2006, less than a year later, Janaagraha pulled out of the project on the grounds that project designers had not as yet clearly enunciated a policy for how the poor would be connected (The Hindu 2006a). The extent of Janaagraha's activities during the time that it was involved was ultimately limited. Among 44 resident welfare associations (RWAs) I interviewed in 2007-2009, fewer than 10 had participated in any of Janaagraha's activities, and several had never heard of the organization. Much of this can be explained by the fact that Janaagraha did not have much presence at Bangalore's periphery. Its water reforms outreach program *Jalamitra* launched in 2005 under PLACE was limited to only a few municipalities. With the NGO's withdrawal, there was no longer an institutionalized participatory intermediary in the project, and therefore no means of obtaining information about the project's progress and schedule for

completion. Still, capital collections continued in fits and starts, and it remained up to the resident welfare associations (RWAs) of the periphery to lobby for greater information, demand revisions to the terms and conditions of the payment policy, and fight for actual water delivery to be prioritized to their wards as I discuss in Chapter 6.

As the above has shown, by the end of 2005, a remarkably large number of institutions were leveraged, recruited, and negotiated their way into this project (see Appendix D). This unwieldy network included four international financing institutions, four government departments, one liaising NGO, a host of private consultants and contractors, credit raters, contractors, banks, and a legal expert on privatization. Although this institutional architecture afforded KUIDFC and its allies the prestige it sought, its sheer size and the aggregation of a variety of disparate interests also made the project vulnerable.

5.5. Contesting Market Rule

Following Tania Murray Li (2007), expert discourses and schemes can often be punctured by challenges they cannot contain. These are moments she calls “provocation” and “reversal”, drawing from Foucault. Her study of development interventions in Indonesia elucidates how the “the practice of government in which a concept of improvement becomes technical as it is attached to calculated programs for its realization” is molded by the “the practice of politics—the expression, in word or deed, of a critical challenge” (ibid: 12). The practice of government can also be generative of *internal* conflicts and contestations. I found, in fact, that the most significant challenges to GBWASP came not only from citizens, but also the experts themselves.

By late 2005, at around the same time that middle class groups in Delhi had successfully derailed a proposed water privatization plan (see Bhaduri and Khejriwal 2005), several different voices in Bangalore had begun to seriously question the proposed water privatization in the city. These ranged from academia and policy think tanks, to water board employees, to community-based organizations. In 2006, the most compelling anti-privatization voice came from a new chair of the Bangalore water board, AK Manoli, who was also supposed to serve as a member of the GBWASP steering committee. Manoli would not stand by the project’s proposals. In a letter dated February 25, 2006 addressed to the Government of Karnataka, Manoli argued: “Private sector participation in GBWASP is not recommended as the financial feasibility of this approach has not been demonstrated nor has it been indicated how the Board or the people of Bangalore would benefit from this model for a delegated private management contract” (BWSSB 2006).

It is important to note that Manoli’s position differed significantly from his predecessor Vidyashankar, who embraced privatization and was an active ally of the neoliberal-minded “urban dream team” during his tenure (2001-04). In fact, the appointment of several new water board chairs in rapid succession from 2005 onwards is not only reflective of how pivotal urban water is to political struggles at the state level, but also the fragility of the bureaucratic alliance I discussed above. It must be remembered that the chair of the water board is a member of the IAS and is thus constantly being shuffled around by the Chief Minister according to prevailing political tug-of-wars. Galvanized by its new leadership, the employees union at BWSSB also mobilized to contest privatization on the grounds that it was financially indefensible.

This momentum sowed the seeds for a dedicated “Campaign Against Water Privatization”, an alliance of some 40 community-based organizations (mostly *dalit* and slum-based) and NGOs. ^{Led} by prominent activists and left intellectuals based in Bangalore, the campaign saw itself as averse to privatization on fundamentally ideological grounds and took a rights-based approach to water. Various meetings and discussions culminated in a week-long protest march across Greater Bangalore in June 2006 (CAWP-K 2006), which led to a waiver of the beneficiary contribution for the poorest as mentioned above.

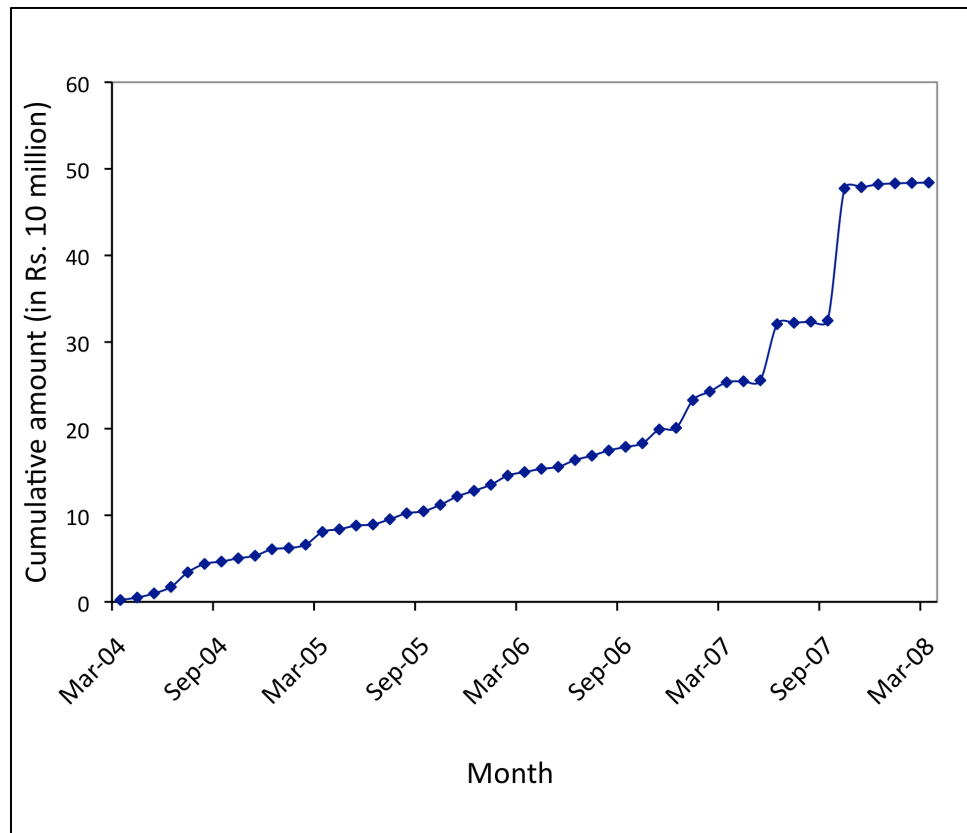
Although the campaign successfully contributed to derailing the privatization agenda, it did not achieve either the scale or legitimacy of the Delhi campaign. Very few neighborhood associations I interviewed had heard of the Campaign. It had devoted little intellectual attention, for instance, to the viability of the financing structure in the project (apart from the argument that the poor should not pay). Nor had it represented the land tenure and affordability-related concerns of the vast peripheralized middle class constituency at the city’s outskirts. In the end, though the campaign was visible in certain circles, it was relatively short-lived and limited in scope. Far more sustained efforts were made in individual revenue layout neighborhoods in reworking and appropriating the terms of the project. Before turning to these insurgent political practices, I map out the geographies of payment and access that resulted from the project.

5.6. The Materialities of Payment and Piped Water

As discussed in Chapter 3, a routine part of my fieldwork in Bangalore involved visits to the municipal headquarters of Bommanahalli, Byatarayanapura, and KR Puram. These were offices that were in considerable flux given the consolidation and expansion of the Greater Bangalore City Corporation announced in early 2007. Despite this ongoing transition, however, I discovered that these local offices maintained careful records of how much money had been collected under the experimental cash contribution policy, and which areas, if any, had received water to date. To understand payment and water access patterns in Bommanahalli, I made regular visits to speak with Basuraj, the wizened and overworked office assistant of the erstwhile city municipal council. Under lock and key in a heavy stainless steel cabinet categorized by month in neat stacks, Basuraj kept track of every pink *chalan* [receipt] proving cash payment for the project from 2003 onwards. Residents were required to pay their contributions at two bank branches in the area; the banks, in turn, forwarded copies of all *chalans* to Basuraj.

On one of my several visits with my assistant Vinodha to Bommanahalli’s headquarters in 2007—while I was still in the initial stages of learning about GBWASP—I told Basuraj that I was interested in determining how much people here had paid on average. Importantly, did they now receive water? Does BWSSB keep track of any this? I was not sure of where to begin, so I began by asking a lot of questions. He smiled wryly at my inquisitiveness. “BWSSB doesn’t care about who pays what” he responded, “they just want to know the total amount, so every month, I submit a running tally”. He showed me his running tallies: in July 2007, it was about Rs. 300 million (~\$ 6 million), contributed largely by some 30,000 households in Bommanahalli alone. Several months later, the tally had reached Rs. 500 million (Figure 32).

Figure 32. Cumulative beneficiary contributions for GBWASP in Bommanahalli



Source: Data collected from Bommanahalli zonal office from 2007-2008

Rs. 500 million from an area that, on last count, had around 50,000 households (Census of India 2001)? That translates to approximately Rs. 10,000 per household on average I thought to myself, which seemed quite sizeable given that annual household income in Greater Bangalore is only around Rs. 100,000 according to the World Bank (2005) willingness to pay survey described above (calculated from Table A.1 on p. 243). I thought for a split second about a possible scenario in which families in the US would be asked to donate a one-time amount of 10% of their annual income or approximately one entire month's income for piped water infrastructure over and above their annual taxes. Would such a policy ever be allowed? I quickly put that thought out of my mind deciding that I did not have enough information at hand, but told myself that I would look this up later when I had the chance.⁹⁶ In any case, my hasty calculation seemed superficial, so I pressed on with Basuraj: did specific wards in the area pay more than others? What about between the relatively richer and relatively poorer households: who paid

⁹⁶ I did look this up later. A study conducted on the OECD on the affordability of water in developed countries shows that on average, people pay *0.5% of their disposable annual income* on annual water and sanitation charges in the US. Even the lowest income groups in the US pay less than 1% of their disposable annual incomes (See Tables 2.2 and 2.3 in OECD 2002: 36-38). Although customers in OECD countries are required to pay initial connection charges, service (fixed) charges, and recurring water consumption (variable) charges, it is unheard of that customers are required to pay an initial infrastructure charge amounting to one entire month's income in one lump-sum.

what? If households have not yet received water, when do they expect to? How had this new “stakeholder” policy panned out? It was clear that I was not going to find out the answers to these questions overnight. Basuraj was tremendously busy, so he invited me to return another day to pore over hundreds of *chalans* myself if I wanted to unlock these secrets. Indeed, I did return—not just once, but several more times over the next two years. For the moment, however, Vinodha and I bid him farewell and we went on our way.

Once we left the Bommanahalli headquarters, we negotiated a tight, noisy grid of motorists on the hectic Begur Road right outside the office, and turned onto a small by-lane in a “revenue layout”. The scene was familiar: a variegated mosaic of plotted houses, tanker trucks plying narrow unpaved roads, vacant plots, and open drains clogged with plastic. We visited Nagamma, an elderly landlady who lived with her husband in a house to which she had added two extra floors in order to earn rental income. When we mentioned the “Cauvery *neeru* (water) project”, she became anxious and disappeared into her house. She emerged a few minutes later with her pink *chalan*, and held it up so that we could see it (Figure 33). It was dated February 19, 2007, marked with an authoritative “cash received” stamp. Not only had she paid the lump-sum upfront amount of Rs. 5,000 that was mandated based on the modest dimensions (30 ft x 40 ft) of her property (see Table 7), but she had also paid an additional Rs. 1,900 as a “late penalty” for failing to pay before the cut-off date of July 31, 2005, bringing her total contribution up to Rs. 6,900 (Rs. 100 per month multiplied by 19 months). To put this amount in perspective, she earned around Rs. 60,000 a year in rental income. She was the sole breadwinner since her husband did not work because of health issues. It was now six months later and there was no water to speak of.

Figure 33. Example of a GBWASP *chalan* [receipt]



Nagamma put a human face to the piles of *chalans* that Basuraj kept in his steel cabinet. I learned that she was one among thousands that had paid a sizeable proportion of their income for

this project well ahead of the actual delivery of water, but currently had no information about when water might flow in their taps. In Chapter 6, I examine the nature of political agency involved in this act of payment—what I call the “conduct of payment”—an agency that I argue is deeply bound up in claims to land tenure and historical legacies of neighborhood struggle in the insurgent peripheries. Here, however, I am interested in enumerating some of the actual conditions of water access following implementation of the project’s much-touted market-based financing framework. There are four main points to note here.

First, as in Nagamma’s case, many had furnished cash payments before the completion of the distribution network, and well in advance of the actual arrival of water. Several residents had been slapped with “late penalties”, moreover, for not paying on time even though water delivery itself was delayed. The completion of the water network in the peripheries took much longer than originally anticipated. This was because during the time lag between when the initial rough technical estimates were conducted in the late 1990s and when construction began in the early 2000s, Bangalore’s peripheries had experienced explosive growth. When the time came to build the network, pipe-laying contractors faced considerable difficulty in laying pipes and required extra time in negotiating pipe pathways around newly built settlements that did not follow a grid formation. A far greater length of piping than originally envisaged—70% more—was ultimately required, thus prolonging construction for several months.⁹⁷

Second, while delays are not unusual for large infrastructure projects, the cash amounts that residents had to bear, including penalty payments, were sizeable—especially considering the interest forfeited on these payments on account of the delay, and the ongoing coping costs for groundwater they were continuing to pay. It turns out that my original spur-of-the moment calculation in Basuraj’s office was not that off the mark. In a sample of ~2,000 *chalans* for one of Bommanahalli’s most populated wards, Puttenahalli (Ward 28), I found that on average, people had indeed paid the equivalent of one month’s income, or almost 10% of their annual income (Table 9). This violates even those standards of how water should be priced subscribed to by World Bank economists (e.g. see McPhail 1993). Even after the contribution for the poorest category was waived, several living in plots of less than 600 sq. ft had paid up, suggesting a disconnect between the waiver and its interpretation.⁹⁸ Moreover, because the stipulated payment contributions rise rapidly in increments of Rs. 5,000 (refer back to Table 7), but average monthly incomes do not rise as rapidly, those living in medium to larger plotted houses bore a significant burden, amounting to over a month’s income as Table 9 shows.

⁹⁷ According to a data provided by the project management consultant, 1,738 km of distribution piping (100 mm to 450 mm) was laid initially, followed by an additional 1,222 km to account for settlement growth.

⁹⁸ When I put this concern forward to KUIDFC and BWSSB officials, I was told that excess payments would be adjusted against future water bills, although the time lag for when this would happen might as much as a decade.

Table 9. Average cash contributions by households in Ward 28 of Bommanahalli, 2005-2007

Property dimensions of houses	Average cash payments for GBWASP as per survey of <i>chalans</i> (Rs) [n=1,864]	Monthly income as per World Bank survey (Rs) [n=8,044 households]	Cash payment stated in equivalent months of income earned
Less than 600 sq. ft [n=104]	4,620	5,987	0.8
601-1,200 sq. ft [n=193]	5,690	7,880	0.7
1,201-2,400 sq. ft [n=381]	10,800	8,911	1.2
Above 2,400 sq. ft [n=68]	17,620	11,109	1.6
High-rise apartments [n=1,118]	13,200	17,318	0.8
Average	10,386	10,241	> 1.0
<i>Average cash contribution as a % of annual income</i>		~8.5%	

Source: Calculated from a sample of 1,864 *chalans* in Bommanahalli and World Bank (2005: 243).

Third, by the time the building of the network was finally completed, the water originally set aside in the Japanese-funded bulk supply project (Cauvery Stage 4, phase I) was no longer available to the peripheries. USAID-FIRE D and Government of Karnataka project rhetoric had insisted that at least 135 MLD from this scheme was to be “reserved” to supply paying peripheral customers. When this bulk supply became available in the early 2000s, however, and the distribution network was still not completed in the peripheries, the water board saw this as an opportunity to earn extra revenue. They thus signed contracts with large water consumers. As one engineer admitted to me:

With the completion of Cauvery 4th Stage, 1st phase, there was good availability of water. At that time, 270 MLD of water was available and the Board needed to sell this water for getting revenue. We begged Infosys to take our water. We wanted revenue collection. We even lowered the industrial tariff from Rs 60/kL to Rs 45/kL for a brief amount of time. We thought that 270 MLD from Phase I and 500 MLD from Phase II would be sufficient until 2025, but the 270 MLD amount has already been allocated. We thought it would be sufficient until 2009, but it only lasted until 2006 (Interview with BWSSB engineer on August 17, 2007).

In interviews with BWSSB engineers, I was told that 40 MLD of the 135 MLD “reserved” for Greater Bangalore was allocated to places that had sufficient infrastructure. While the IT giant Infosys was one beneficiary of water at that time, other beneficiaries included high-end apartment complexes and a few commercial establishments and private hospitals throughout Greater Bangalore. In each of these cases, contracts were negotiated with the water board. The remaining 110 MLD was quickly absorbed by customers in Bangalore’s core areas during the

delay in completion of the peripheral network. As a result of the delays and diversion of water to other end-users, not one drop from the bulk supply project was available for the thousands of “stakeholders” that had fronted a sizeable portion of the water infrastructure bill.

Fourth, to restore some faith in the project, water board engineers installed additional booster pumps to squeeze an additional 100 MLD out of the existing infrastructure in 2007. This water was ultimately distributed to 70 of Greater Bangalore’s peripheral wards. Much like the rest of the city, these wards that now receive water on a rotational schedule. The remaining hundreds of thousands of households in Greater Bangalore will likely receive water only in 2014, when the second phase of the Japanese-financed bulk water project (“Cauvery Stage IV, phase II”) puts an additional 500 MLD of water on-line, leaving a time lag between payment and water delivery of potentially *one decade* for many households. In the meantime, the logic of water distribution in these 70 wards has little to do with cash payments. The logic based, rather, on a combination of engineering considerations—wards were prioritized for water delivery in the short-term because of their supposed proximity to the existing the feeder mains—and maneuvers by state-level politicians to prioritize water to their constituencies. These are forces that far exceeded the market-based financing framework of the project.

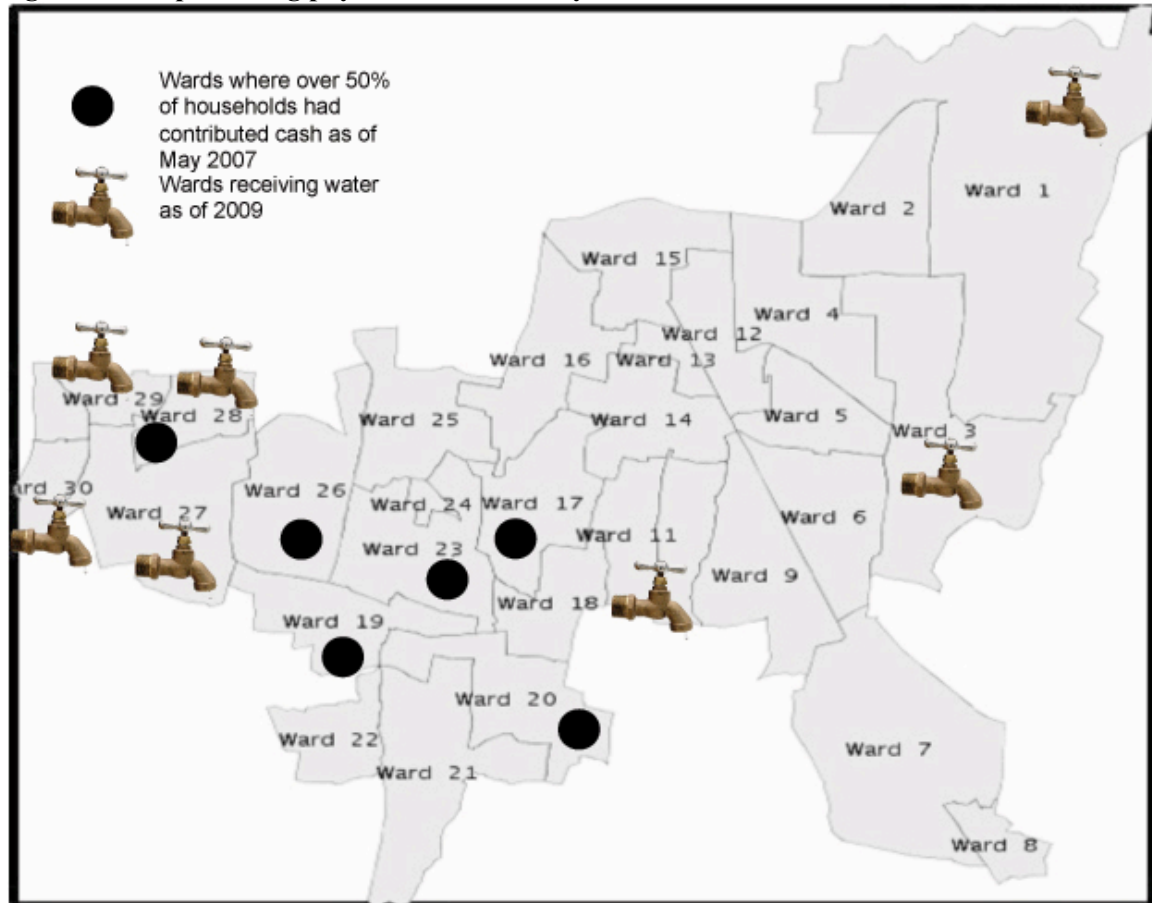
When I mapped wards in Bommanahalli that were receiving water in 2009 (seven in total) and wards where at least 50% of households had contributed to the capital costs, I found virtually no correlation between the two (Figure 34). Not one technical standard and not one economic calculation equating payment with improved service laid out in expert reports were achieved in this project. The materialities of water payment and access point to troubling geographies of exclusion: no water to date, for instance, has been provided in some of the poorest and most water-short areas of Greater Bangalore. The house of Nagamma, the landlady in a Bommanahalli revenue layout who, on a modest rental income, paid Rs. 6,900 for piped water in 2007, for example, does not fall within the 72 wards prioritized for water supply.

This geography of access could be seen as symptomatic of Harvey’s (2003) “accumulation by dispossession”: in an age of neoliberalism, a resource that is assumed to lie in the communal sphere is diverted to high-value uses to the detriment of others relying on that resource. But there is more to the story that complicates this narrative of dispossession and reveals instead the highly contradictory nature of neoliberalism. Several wealthier households that have paid upfront amounts have not as yet received water; poorer households that refused to pay the cash amounts are being serviced. Moreover, as of late, the water board has now started to refuse supply to new luxury apartment complexes and has mandated that any new customers have to install rainwater-harvesting systems in order to be approved. These findings complicate linear narratives about the inequitable outcomes of neoliberal reforms. Overall they reveal the profound limits of such programs—programs that are contingent on a messy array of political and economic factors that exceed their logics and technologies of rule.

Perhaps the biggest casualty here is accountability. Despite the resources and time spent on a large World Bank willingness-to-pay survey, no comparable level of data specificity is available in the public domain on actual amounts paid. Rendering willingness to pay visible, but actual amounts paid by whom invisible, is in itself a calculative strategy. Without data on the latter, the project proponents cease to be accountable to particular groups and regions in Greater

Bangalore. As the office assistant at Bommanahalli told me, the water board is not interested in who pays what, just the cumulative tally. The absence of an elected council for three years between late 2006 and early 2010 has also meant that there was no answerability at the local level during this period. To fill this accountability deficit, resident welfare associations have been rallying government officers for information. Some even maintain their own records of payment that they use to leverage attention from authorities. I turn to the strategies of associations next.

Figure 34. Map showing payment and Cauvery water access in Bommanahalli in 2009



Source: Data collected from GBWASP consultants, Bommanahalli zonal office, and Census of India (2001); ward map from e-Governments Foundation.

5.7. Conclusion

The creation of the BBMP—the Greater Bangalore City Corporation—at a late stage (2007) greatly complicated several aspects of this piped water project. The eight municipalities that were covered under GBWASP are now part of five different zones of BBMP making for considerable administrative confusion over the monitoring of cash payments from citizens, maintenance of new and existing water infrastructure, and responsibility for debt repayment.

There was a debate, for instance, about how the pooled financing model would function now that the debt-bearing municipalities were consolidated into one larger city. Would BBMP service the debt or would it be transferred to BWSSB? There is no doubt that this transition contributed to the overall confusion and lack of accountability that it embodied. There are, nevertheless, certain insights we can gain about the nature of market rule and neoliberal hegemony through this case.

I argued that this was first and foremost a project to demonstrate the viability of a market-based finance model and thereby set a precedent for infrastructure projects in the country. Water supply was not the only or primary goal. To this end, the supply of water to Greater Bangalore was *re*-problematized by neoliberal-minded experts in the early 2000s, such that the need of the hour was a disciplined regime of municipal finances—a problematization that was consonant with prevailing political-economic prerogatives at the state-level. An alliance of like-minded bureaucrats that steered the project, in which KUIDFC played a central role, leveraged external donor relationships and the performative spaces of water reforms in order to increase its own visibility and secure consent for this agenda.

A mainstay of the contemporary agenda is what I called technologies of payment and repayment that are accompanied by particular calculative rationalities and inscription devices to justify their existence. These are governing strategies that aim to direct the conduct of the local state and citizens to better resemble that of a firm and its stakeholders. Yet, these are also technologies that retain and intensify inter-governmental hierarchies; a relational understanding of what rival “states within the state” do to each other is of particular use in seeing just how significantly municipal bonds intend to shape intergovernmental relations. The beneficiary contribution policy and the punitive penalty clause, similarly, can be seen as representative of the subjectivities inherent in citizen-state relations in liberalizing India. On the one hand, the trope of “stakeholder” points to state projects that insist on the consumerification of the middle class, and on the other, deep-seated caste and class hierarchies, as exemplified by the perception that lower middle class revenue layout dwellers “want everything free” continue to endure and shape citizen-state relations.

Finally, I explored the materialities of pricing and access based on data collected at local municipal offices. The multiple disjunctures between the geography of payment and the geography of water access are not simply gaps in policy implementation; they reveal, rather, the multiple forces that exceed and in turn become entangled with neoliberalism as a political rationality. In the final chapter, I further investigate this geography of payment, and show how the project was deeply shaped by the insurgent politics of the city’s urban frontier.

CHAPTER 6

Insurgence at the Frontier: The Peripheralized Middle Class, Associationism, and the Conduct of Payment

6.1. Introduction

After over a century of state-subsidized piped water supply to the residents of Bangalore, the Greater Bangalore water project had broken radically with the past. Official rhetoric in the 1960s insisting that “in the implementation of the Cauvery scheme, money is no consideration” (cited in Hasan 1970: 190, see Chapter 2) had given way to an avowed “lack of adequate financial resources” (USAID 2006: 1) for building water infrastructure, and the need to institute “fiscal discipline in municipal operations” (USAID 2003: 23) by the late 1990s. One important consequence of this paradigm shift was that rather than being required to pay solely for the connection costs and recurring water tariffs as their neighbors within the city had done for decades, in the new regime, peri-urban residents were invited to become “stakeholders” in the assets created for them. Thus, mandatory capital contributions by households, as I argued in the previous chapter, were designed as a political technology to reshape the very subjectivities of peripheral urban dwellers. By requiring customers to pay for the pipes connecting their homes according to a specific calculative rationality, neoliberal experts held out hope that citizens would “align their personal choices with the ends of government” (Rose and Miller [1992] 2008: 69). In other words, experts anticipated that residents would internalize the market-driven calculus that animated the project.

By late 2008, nearly double the anticipated amount—over Rs. 20 billion—had been collected from Greater Bangalore’s residents and real estate developers. In some peripheral neighborhoods, residents were so eager to contribute that they pooled their funds and deposited lump sums with the Bangalore water board (Ranganathan et al. 2009). My fieldwork also showed that some residents kept a careful roster of payees in their neighborhood and contended that their own records were in far better shape than the water board’s files. Some scholars situated within a governmentality framework might contend that this type of conduct can be explained through the idea of neoliberal moral “responsibilization”—or the successful inculcation of a reflexive, economic ethic in subjects (e.g. Lemke 2001)—in this case, evidenced by the fact that peri-urban subjects are bearing new financial responsibilities. As scholars working within this tradition have rightly pointed out, however, Foucault and his followers rarely asked *what reasons* people have for adopting new technologies of the self. Indeed for methodological reasons, Foucault’s preoccupation was “on the ways in which the social world makes the subject, not the ways in which the subject makes the social world” (Bevir 1999: 357). Foucaultian analyses thus tend to leave little room for “how individuals can act creatively in ways which are neither fixed nor even properly limited by the social contexts or regimes of power in which they have their being” (ibid).

This chapter argues that the conduct of payment of peri-urban subjects—including the consent, contestation, and compromise surrounding payment—needs to be understood in relation to their historically molded agency and insurgent citizenship practices. Used in conjunction with a governmentality framework⁹⁹⁹, I find that it is a Gramscian conceptual toolbox that equips us to understand the nature of this political agency. While governmentality implies that subjects ultimately do participate in projects of their own rule, hegemony lends insight into *why* they do this. As Donald Moore (2005:11) puts it, for Gramsci, relations of power recruit subjects not by duping them, but because subjects come to “identify their particular interests with a general, more universalizing one”. Subjects are thus recruited into projects of their own rule because emergent interests are produced through coercion, consent, and compromise.

In what follows, I draw on in-depth interviews and focus group discussions to argue that many peri-urban residents did indeed pay for the water project’s assets as they were expected to, but not necessarily because they were acting according to a market-driven calculus. I contend instead that because water reforms articulate with a complex history of settlement regularization at the periphery, payment for water in this case serves as a form of claim-making that extends beyond the act of responsibly shouldering water costs. That is, in revenue layouts historically relegated to an “unauthorized” status as I discussed in Chapter 2, the conduct of paying—be it taxes, betterment fees, regularization penalties, or even unprecedented water charges—represents a bargaining chip, a means through which to collectively negotiate greater tenure security with the state and legitimate membership in the city. “We all paid taxes” explained Shama Rao, the retired public sector employee and revenue layout dweller introduced in Chapter 2, “because once you start paying taxes, you started demanding things”. Similarly, in answer to a question about why she had paid the beneficiary contribution for the water project, Pushpa, a resident at the southern-most edges of Bommanahalli, explained: “we all paid not only for this scheme, but for any scheme that the government announces. You see: if we pay, we can raise our voices in a better manner!” Again, another resident put it as: “we paid because we are *law-abiding citizens*, after all”, sitting, rather ironically, in his home in an illegal revenue layout on the northeastern fringes of Bangalore. The ethnography showed that regardless of whether residents felt assured of actually receiving water—indeed many did not—payment was carried out in order to fight for respectability and recognition, and leveraged to fend off threats to their legitimacy.

The payment-as-a-bargaining chip strategy was forcibly leveraged in the face of a new, punitive policy instituted by the state government of Karnataka in 2007, *Akrama Sakrama* [“illegal legal”], threatening to severely penalize revenue layouts for their “unauthorized” status (see Chapter 2). As discussed in Chapter 2, over and again in my interviews and media accounts between 2007-09, peri-urban residents vigorously debated the logic behind deeming their settlements “illegal” *when they had already paid the “Cauvery water charges”* and other taxes and fees mandated by the local state. Owing to the persistent lobbying against both regularization penalties and upfront payment for Cauvery water—often on the grounds that these policies were

⁹⁹⁹ As Rose et al. (2009: 25) suggest: Governmentality analysis does not aspire to be a sociology of “how programs are actually implemented, or the proportions and numbers of subjects who adopt or refuse governmental problematics and agendas, or whether or not according to their own criteria programs succeed or fail”. But there is no reason why a governmentality framework cannot be used “as part of an analytical toolbox, good for some purposes but not for others, and capable of being used in conjunction with other tools.”

mutually contradictory (“how can we be illegal *and* be stakeholders?!” they questioned)—the state government revised both sets of policies in 2008. This reveals the extent to which programs of reform, despite their depoliticizing rhetoric and truth claims, do in fact become “politically charged arena[s] in which relations of rule are reworked and reassessed” (Li 1999: 297). “Unplanned outcomes” as Miller and Rose (2008 [1991]: 35) succinctly put it “emerge from the intersection of one technology with another”—in this case, one program for neoliberal water reform with another for socially regressive land reform in the new millennium.

Thus rather than seeing reforms as a coherent program of rule that successfully shapes “responsibilized” subjects, my ethnography suggests that peri-urban subjects are particularly resourceful at appropriating and reinterpreting the terms and meaning of payment policies. In this case, they did this not only by leveraging payment as a bargaining chip, but also by seizing upon the disjunctures and contradictions in the Greater Bangalore water project—not least of which is the fact that citizens were charged late penalties when water delivery itself was delayed. These subversive strategies, or everyday “consumer practices” (de Certeau 1984), do not amount to an explicit challenge and overhaul of market-oriented policy. In other words, these insurgent practices cannot be romanticized as forms of resistance and said to create a more socially just city, but they do temporarily destabilize the rigidities of market rule and coax an eventual compromise (Roy 2009; Shakya and Rankin 2008). I contend that we therefore have to understand how market-based reforms become embedded in a terrain of civic life and meaning, and importantly, are constituted by specific struggles in the places in which they unfold. Reforms are sustained not by removing the “blockage of politics”¹⁰⁰, then, but rather *through* the multiple and situated entanglements that they are meant to supersede. The seemingly simple and straightforward trope of “cost recovery” so foundational to contemporary water reforms carries with it a much deeper set of political, social, and cultural significations.

At the frontlines of the debates over water pricing policies and the appropriation of payment strategies are the resident welfare associations (RWAs) of the peripheralized middle class. Over the past two decades, a range of associations has burgeoned at Bangalore’s fringes to make claims to improved services and tenure security on the state. In delineating how cost recovery policies play out at the urban frontier, then, this chapter makes a contribution to the existing scholarship on associationism in urban India. Specifically, it aims to render a nuanced and spatially sensitive understanding of the associational politics of the peripheralized and informalized middle classes. Rather than assume a natural convergence between the exclusionary politics of the middle class and the goals of liberalization as others have done through their focus on the “new” middle class, my findings make room for a more complex, variegated, and spatially differentiated urban middle class politics in India today. If Chapter 3 underscored the group orientation and protest tactics of the Communist Party-affiliated citizen’s *vedike* [platform] in Bommanahalli, this chapter sets out to examine the “civilized” strategies of RWAs at the periphery, and in so doing, better unpack the associationism of India’s *lower-* and *middle-*middle class. My reading of the politics of peripheral associations challenges the existing scholarship on associationism in urban India in that I find that they are not amenable to being mapped purely along binaries of “civil society” versus “political society” (Chatterjee 2004) or the “new” politics

¹⁰⁰ A 2005 article appearing in *The Economist* titled “Democracy’s Drawbacks” claims “Sustained growth in India would be all the more impressive if the government could pass its reforms. *But the road is blocked by politics*” (Economist 2005 emphasis mine).

vs. the “old” (Harriss 2005). Following James Holston (2008; 1999), I suggest that these citizenship politics can be seen as “insurgent” in that they are characterized not by acts of radical resistance, but by acts of subversion that seek to extend treatments afforded to “those city people”—i.e. those living in Bangalore’s core—to the periphery. Like Holston, I apprehend this vision of rights as bound to propertied notions of citizenship. However, unlike Holston, I argue that the insurgent citizenship practices of the peripheralized middle class reconstitute relations of dependency with the state and do not represent a clean break from them.

6.2. Situating Bangalore’s Peripheralized Middle Classes

The roots of differentiation

Throughout this dissertation, we have met members of what I am calling the “peripheralized middle class”—those who indeed occupy liminal, contradictory spaces in India’s urban social fabric, and at least in Bangalore, inhabit poorly serviced fringe settlements with dubious legal standing. Early on in Chapter 2, we met Santosh, a water tanker business owner who is just as much a “social worker”—as he self-describes—as he is complicit in the “water mafia” prowling Bangalore’s fringes. We also met those members of the public sector bourgeoisie, Shama Rao and Shamana Reddy, who, while today are marginal to the state’s capitalist pursuits, at one time represented a major constituency of the developmental state. Finally, we met Lakshman Kumar and Agnes Perriera, both different types of white-collar workers. While Kumar is a salaried, cadre organizer of the Communist party, Perriera is a salaried hospital employee. Her son, moreover, with his junior engineer job at Hewlett Packard, represents the next generation of Bangalore’s peripheralized, and perhaps—although it is by no means clear—upwardly mobile middle class. In this section, I aim for a better conceptual and theoretical grasp on these informants by turning to the existing literature on India’s middle classes. How well does the existing literature explain such individuals—their politics, their desires and aspirations, their “critical self-knowledge focused on understanding [their] relations to others, their place in history” (Crehan 2002: 76)—what in a Gramscian sense can be understood as “culture”?

By and large, the existing scholarship has neglected India’s lower and peripheralized urban middle class. In a profusion of critical social science literature on the middle class in recent years, most studies have focused on the so-called “new” middle class or the “new rich”. These are the consumerist, English educated, upper caste, upwardly mobile, white-collar segments of urban India that have generally reaped the fruits of economic liberalization; that tend to “debase politics and the new lower class/caste politicians as dirty, dishonest, corrupt, criminal and vulgar” (Fernandes and Heller 2006: 520); and that feel the need to distance themselves—if not simply erase—the poorer, unclean elements of the city (see for instance Anjaria 2006; Baviskar 2002; Fernandes 2004; Mawdsley 2009). Part of the reason for the scholarly focus and hype surrounding this section of the middle class is its tangibility and visibility in the public sphere: the “lifestyle” advertising hoardings that close in on jammed city streets in Bangalore, the staple discourses of “double-digit growth” in the media, the state-sponsored schemes inviting middle class participation in city planning—all these act to reinforce the hegemony of the more elite segments of the middle class. Senior elected officials and administrators, moreover, are prone to inflating the size of India’s middle class and its vast latent consumer potential in public

rhetoric. Indeed, Leela Fernandes' (2006) core argument is that the “new” middle class is not merely a natural byproduct of economic growth in India, but has been actively construed by specific state-led discourses and policies in the context of liberalization—discourses that have in turn been propped up by a variety of market research surveys and forecasts.

Yet for all the energies devoted to driving and constructing the consumption-oriented “new” middle class, this segment continues to comprise a numerical minority—not only with respect to the wider Indian polity, but also *within* the middle class. So how large *is* India's middle class? And how large can we estimate the peripheralized middle class? These are notoriously difficult questions to answer, made no less difficult by shifting official poverty norms, unreliable poverty statistics, and the influence of vested interests in existing survey data. One example of the latter is the overtly pro-business National Council of Applied Economic Research (NCAER) (introduced in Chapter 4) that produces today the largest¹⁰¹, most generously funded, and most influential income and consumption survey in India—recently, in partnership with McKinsey Global International. As Ghertner (2010) provocatively shows, NCAER's (2005) report titled “The Great Indian Market” rejects a more justifiable set of evenly-spaced income quintiles used in previous survey rounds in favor of a new set of arbitrary defined categories in which four of the eight are supposedly India's “rich”: the “near rich”, the “clear rich”, the “sheer rich”, and “the super rich”. That together these bizarre classifications account for less than 1% of Indian households, yet account for half the survey categories make clear the irony of this discursive move. With the words “aspirers”, “seekers”, and “strivers” used for three of the remaining categories—the last one being “deprived”—the rhetorical gimmickry here represents an unabashed attempt to enframe the promise of India Rising.

Using a somewhat more reliable set of evenly spaced income quintiles from previous NCAER rounds, Sridharan (2004) divides income per household per year into five categories—what he calls “low” (up to Rs. 35,000 per year), “lower middle” (between Rs. 35,000 and 70,000 per year), “middle” (between Rs. 70,000 to 105,000), “upper middle” (between Rs. 105,000-140,000), and “high” (above Rs. 140,000), and calculates the proportions of India's urban and rural populations that fall into each of these categories. His calculations reveal that averaged over India, less than 6% of the population falls into the high-income segment. Even taking the broadest definition of “middle income” and thus what he terms “the broadest middle class”—one that combines middle, upper middle, and high-income households—only one-quarter of India's population can be accounted for. By contrast, low income and lower-middle income households comprise almost 75% of the total population—with this proportion being roughly divided between low income (40%) and lower middle income (35%). Even *among* various middling segments, a far greater number of households can be said to be lower-middle income or simply *middle*-middle income—two categories of which the peripheralized middle class can assumed to be a part—with starkly different consumption profiles from the upper-middle segments (Deshpande 2003).

While there are no doubt several problems inherent in conceiving of class purely in income and consumption terms, not to mention problems inherent in the survey data as just described, what we learn from confronting such numbers as a first approximation is that the hype

¹⁰¹ At 300,000 households, the NCAER's sample size is over twice the size of the National Sample Survey Organization's of 120,000 households for its largest surveys.

surrounding the more elite, consumption-oriented segments of the middle class is highly disproportionate to its numerical significance. As Deshpande (2003: 138) points out, “empirical exercises like this allow us to detect the ideological sleights of hand by which *the* middle class presents itself as a large plurality representing everyone, although it is in fact a small minority that usually speaks only for itself” (emphasis added).

The basic point here is that India’s middle classes are not only highly internally differentiated, but if we must imagine them in purely economic terms, the majority in the *middle* is indeed not “rich”—not even remotely “near rich”. Clearly, though, there are other more useful markers of differentiation than income, not the least of which are caste, religion, education, language, and occupational profile. For Fernandes and Heller (2006: 500), the subordinate middle classes can be differentiated from the more dominant fractions of the middle class (what they and everyone else call the “new middle class”) because the former consists in part of “salaried workers who have some educational capital, but do not occupy positions of significant authority over other workers”. This fraction includes middle- and lower-level employees, both public and private sector clerical staff, and office workers. By contrast, the more elite segments of the middle class comprise “those with advanced professional credentials or accumulated cultural capital who occupy positions of recognized authority” (ibid). Among other examples provided in the larger literature characterizing the dominant middle class are the “new-rich” technology and management professionals (e.g. Fuller and Narasimhan 2007; Upadhyaya 2009) and, more broadly, older and newer elite fractions of what some have referred to as India’s “intelligentsia” (Beteille 1989). The senior IAS officers that I interviewed in Bangalore can surely be characterized as such.

The historical roots of the internal differentiation of India’s middle class stem from the crisis of the Nehruvian modernist project (Corbridge and Harriss 2000). Under Nehru’s interventionist state, the middle class as a social group both shaped and was shaped by nationalist discourses and policies of state-led development, particularly its bureaucratic-managerial intellectuals. Indeed the formation of the middle class was inseparable from the formation of the developmental state. As I described in the history of Bangalore’s frontier in Chapter 2 (and *pace* Janaki Nair), the sprawling public sector townships with their low-rise plotted houses helped to cultivate bourgeois desires for home ownership in state workers. Although state-led development created specific forms of dependencies in the form of housing, employment, and education, these were by no means universally available to the middle classes, let alone the poor (Fernandes 2006). Marginalized sections of the middle class and aspirants to middle class status found that they were unable to gain access to the development state’s benefits. As Bardhan (1998) explicates, the Nehruvian state was hard-pressed to successfully balance the competing demands of the dominant class coalition.¹⁰²

As a result, increasingly disillusioned by the nation-state and its ability to carry out transformative economic projects, different sections of the middle class went their separate ways (Deshpande 2003). Ultimately losing its audience even in the elite in the wake of new claims from below, the Nehruvian state was never able to successfully consolidate its hegemonic power—either over the subordinate masses or the subordinate middle classes. At the same time

¹⁰² Bardhan’s dominant class coalition in post-independence India consisted of landed agriculturalists, the industrial bourgeoisie, and the bureaucratic-managerial elite.

as Chapter 2 discussed, local officials and politicians sought to consolidate *their* power through the lower middle class by abetting in illegal development in the areas surrounding public sector enterprises—yearnings that the marginalized bourgeoisie were only too willing to entertain. Often falling along caste, language, and ethnicity differences, these were thus the incipient exclusions and realignments of the middle class that, in turn, shaped their differentiated identities and politics for generations to come.

Bangalore's peripheralized middle class bear these historical legacies. Shama Rao and his public sector colleagues, for instance, were unable to secure a BDA housing allotment despite decades of service in a government-owned enterprise. "When they have miserably failed, where will people go?" Rao had defensively questioned, referring to the parastatal housing and planning authorities for the city. Retiring at a mid-level managerial position in an engineering industry, Rao comprises a class category that Marxian scholars have long puzzled over, and have variously debated in relation to the terms "the new petty bourgeoisie" (Poulantzas 1975), the "labor aristocracy", or "the lower middle class" (Mayer 1975). Erik Olin Wright (1984), for his part, found that various interstitial classes occupy contradictory class positions—defined by elements of both proletarian and bourgeois existence. This formulation provides analytic leverage because it explains how Rao was at once a salaried worker—an employee exploited by the capitalist state—as well as a member of the bourgeoisie aspiring of property ownership and able to exploit *other* forms of labor in his own home. At the same time, given his settlement at the fringes of Bangalore—and *not* the suburban fringes of Whitefield created for the elite—Rao can by no means be classified as a member of the dominant middle class.

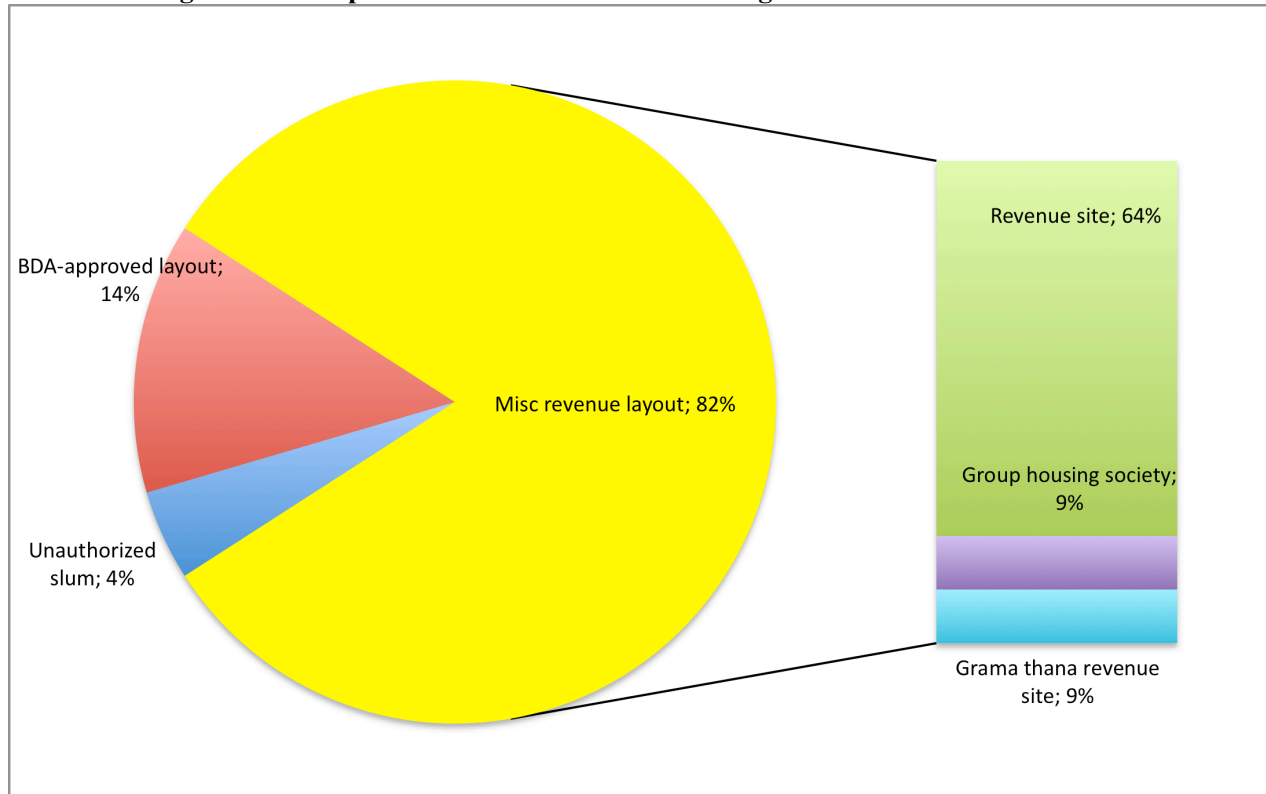
This interstitial and contradictory positionality is even more marked in the case of Shamana Reddy, who, like Rao, also retired at a mid-level position from the Indian Telephone Industries. As the surname indicates plainly to any local, Reddy hails from an agrarian landowning caste, and today boasts that he is the "No. 1 landlord in the village!" describing the peripheral neighborhood of Hongasandra in which he lived. A Kannada speaking native with roots in an agrarian proprietary class and *also* a member of the public sector middle class; a card-carrying member of DYFI closely associated with (in fact related to) the recently elected BJP MLA of Hongasandra, Shamana Reddy is indeed the complex stuff on which little academic research exists.

Materialities and subjectivities

Even so, Rao and Reddy represent only one, perhaps shrinking dimension of the peripheralized middle class—i.e. its public sector character. Drawing from a larger sample, a few other characteristics of this larger grouping can be discerned. As mentioned in Chapter 3, I conducted interviews with 44 peripheral residents including representatives from associations. Although associational leadership is predominantly male, about a third of my interviewees were women. I developed a set of 30 questions (see Appendix A for semi-structured interview protocol) and coded responses in order to compile and compare data across individuals. Respondents were selected non-randomly based on lists of RWAs furnished by the local government or in newspapers, and their willingness to speak with me. Upon developing familiarity with this initial selection, my sample size expanded through further introductions I was given to neighborhood residents. It should be noted therefore that my sample was biased towards individuals that were particularly vested in and active around neighborhood welfare

issues. More or less consistent with official estimates of the types of settlements at Bangalore's fringe¹⁰³, I selected a majority of my interviewees (82%) from revenue layouts, including *grama thana* revenue sites (sites "approved" by the local village council but nevertheless outside the purview of the planning agency) and revenue layout cooperative housing societies, followed by BDA-approved or planned layouts (14%), followed by unauthorized slums¹⁰⁴ (4%) (Figure 35).

Figure 35. Composition of interviewees according to settlement classification



Four important characteristics emerge from my data that help to socio-economically and spatially situate the peripheralized middle class: (1) what people do for a living, (2) when they moved to the area, (3) why they moved to the area, and (4) their class consciousness and subjectivities, especially in relation to other social groupings in Bangalore. First, in terms of occupational profile, the majority (~40%) of respondents can be classified as "self-employed". This ranged from small businesses (e.g. water tanker delivery, technology consulting/repair services, Xeroxing shops), to small or independent real estate initiatives, to politics. Several

¹⁰³ Official estimates put unauthorized areas at around 90% (including all shades of legality therein) and BDA layouts at around 10% of inhabited areas in the periphery.

¹⁰⁴ Note that since my interest is the peripheralized middle class and not the absolute poor, my sample did not include many slum households. However, in order to gauge participation in the Greater Bangalore water project, I included interviews with slum dwellers and attend meetings conducted on behalf of slum dwellers. Official estimates suggest that around 30% of Bangalore's population lives in around 400 slums in the city, including 60 on the periphery. Actual numbers are likely much larger than this (Benjamin 2000).

mentioned being involved in more than one occupation. For instance one self-employed resident of the southern fringes of Bangalore living in a *grama thana* revenue site owns his own IT-services business while also “helping a friend to sell some apartments in the area”—apartments, notably, that were given BDA approval “with no amenities whatsoever”. Politicians similarly moonlight in real estate or are otherwise independently wealthy because of their land-owning roots. A significant number of the self-employed are also former public sector employees; Shama Rao, for example, now sells home furnishings on an ad-hoc basis. The next largest category among my informants (~35%) are involved in a range of miscellaneous salaried white-collar jobs including jobs in the technology industry, public and private banks, hospital services, engineering services, education, and consumer goods sales. Around 20% of my sample comprised retirees from both the public and private sector (mostly public) no longer employed full-time. This sizeable proportion in my sample can be explained by the fact that I was seeking out those involved in local associational activity; in Bangalore, as the case across India and across the middle classes, it is largely male retirees that run middle class neighborhood associations. Finally, a smaller fraction (~5%) of mostly women consists of garment factory workers. I provide this breakdown not necessarily to as an attempt to represent the occupational profile of the peripheralized middle class—indeed, my sample of 44 non-randomly selected informants is too small to do that. Rather, I provide these results as an indication of the range of livelihoods among those who are informalized and peripheralized, yet also *propertied* occupants the city. The distinction of being propertied is an important one not only because it complicates the existing literature on the urban subaltern and middle class poor (e.g. Bayat 2007), but also because it helps to explain the nature of citizenship claims at the periphery.

Second, I was interested in identifying when people had moved to the area in order to situate revenue layouts and their class composition in the city’s recent political-economic history. As Chapter 2 explained, revenue layouts are not a recent phenomenon; their origins can be traced, rather, to the height of state developmentalism in the 1960s-70s. Yet it is also true that revenue layouts witnessed an explosion in the post-liberalization period owing in large part to the relaxation of agricultural land conversion laws and the unaffordability and unavailability of serviced sites within the confines of the city. Thus while thirty-four per cent of my respondents had made their home in a revenue layout prior to 1991 (these were mostly public sector retirees and local land-owning politicians), 66% had moved there after 1991—the year to which India’s liberalization is typically pegged. What can be surmised from this broad temporal mapping is that as urban informality has become more prevalent in the post-liberalization period, it has also become increasingly differentiated, and as a result, the groups typically associated with informality have also become more variegated. As Roy (2003b: 143-144) finds in her research on informality on Calcutta’s fringes, “instead of seeing informality as coterminous with poverty, it might be more useful to think of it as a site in and through which social hierarchies are reproduced and negotiated”. Class hierarchies are indeed reproduced and negotiated in Bangalore’s unauthorized layouts. Differential material and symbolic benefits are secured over time via group-oriented tactics as I noted in Chapter 3, electoral politics, and a more “civilized” set of associational politics as I discuss below.

Third, why did people move to the outskirts? My interviews with Rao and Agnes already provide some indication of this answer: indeed, affordability and the desire for home ownership were inseparable drivers mentioned in a majority (68%) of interviews (Table 10). Similar to

Holston's (2008) findings, home ownership is high in peripheral neighborhoods. A survey of 10,000 households in peri-urban Bangalore finds that for medium (150 sq. ft to 600 sq. ft) to large (above 600 sq. ft) individual plots, ownership is 69 and 84% respectively (World Bank 2005: 244). Given his post-retirement savings, for Rao, even two large revenue sites at less than Rs. 100 per sq. ft proved affordable at the time. In the late 1980s, land in revenue layouts cost up to 50 times less than in planned layouts (Table 11). There was and continues to be a negative correlation, moreover, between distance from the city center and the price of land, no doubt edging settlement further outwards over time. Other predictable reasons cited were the lack of BDA options and the draw of work in the area, mentioned in 36% and 30% of interviews respectively. But there was also another equally common and important reason, one that, as I kept hearing in interviews, also lent insight into the politics and positionalities of the peripheralized middle class. What I coded as "promises made by the developer or real estate agent" was reported as a draw to the fringes in 40% of cases. I also realized that invoking this reason served as a means through which to deflect blame in light of harsh new regularization drives in the contemporary moment.

Table 10. Responses to question: Why did you move to the outskirts of Bangalore?

Reason	Number of interviews out of 44 in which the reason was mentioned ⁽¹⁾	Frequency with which reason was cited (as a % of all interviews)
Affordability/wanted "own home"	30	68%
Promises made by the developer/real estate agent	17	40%
Lack of BDA allotment	16	36%
Draw of work in the area	13	30%
From an agriculturalist family that was already settled in the area	9	20%
Part of an employee-initiated effort	8	18%

(1) Interviewees often cited more than one reason

Table 11. Estimated residential land values in selected areas, 1987 and 2009

Locality	Price range in 1987 (Rs/sq. ft)	Price range in 2009 (Rs/sq. ft)
Around MG Road (central business district)	350-500	6,000-12,000
Basavangudi (colonial)	200-300	~6,000
Cox Town/Frazer Town (colonial)	120-150	5,000-7,000
Wilson Garden (CITB)	120-150	~6,000
Jayanagar (CITB)	180-250	6,000-8,000
Koramangala (BDA)	80-150	~10,000
New BDA allotment	18-25	200 (not including fees)
Revenue land (e.g. KR Puram and Bommanahalli)	10-40	~1,500-2,000

Source: Compiled from Ravindra (1996: 84), BDA (<http://www.bdabangalore.org/layout.htm>), and Citizen Matters/Bangalore Realtor Association (<http://bangalore.citizenmatters.in/articles/view/615-real-estate-rates>)

One interviewee summarized this as follows: “At the time of the formation of these layouts, only verbal promises have been made by developers. But we trusted them so we came here. In some places, they promised us roads and other amenities, but at a later stage, they realized that the land will be worth more, so they didn’t build roads”. The “we” and the “us” in this response served as a gesture of solidarity to generalize the predicament of *all* revenue layout dwellers as falling prey to unscrupulous developers. Another similarly suggested:

Revenue layouts were the result of corruption. There was no planning involved. My layout is a revenue layout. There is no water or sanitation here. People were made victims. These layouts were sold to [the] public. People were interested because it was economical to buy. Due to that, people became victims of illegal development (Interview on July 30, 2008).

Yet another echoed this victimization complex when she said: “At the time of the deal, our developer Mr. K Lakshman promised to provide roads and water but he missed his promise [*sic*] afterwards”. Holston (2008: 178) similarly finds that fly-by-night developers promising “all the urban comforts” ruthlessly exploit the dream for home ownership on the illegal peripheries of Sao Paulo; once the sale is over, developers disappear from sight without fulfilling these promises. In sum, I found that pervading residents’ sensibilities around the circumstances under which they had moved to the outskirts are a set of perceptions that insist first, on the lack of alternatives; second, that layouts were purchased in good faith of an exploitative developer; and third, that either the developer or the local state is to “blame” for the mess at the outskirts, but not the revenue layout dweller:

Closing your eyes when you’re not supposed to close has caused all the problems here. It is not like any other city where you have a proper developer. There, at least the developer has given proper roads. Here, it’s titts and bits. It should not be allowed by the government! There is no formation of a layout at all. It is so haphazard. When the municipality is giving you streetlights and drainage, it means they know something is going on here. Whom do you blame? The government should have certain norms, but it doesn’t have any. *You can’t blame the person with the small plot* [emphasis added] (Interview on July 30, 2008).

These perceptions bring me, finally, to a fourth and related dimension that will help to locate the peripheralized middle class—what in a Gramscian sense can be termed “culture.” As Crehan (2002: 2) writes, “for Gramsci, the notion of culture is always inextricably entangled with that of class. Culture for Gramsci is, at least in part, how class realities are lived”. The particular ways in which people map the world they live in, their recognition of their own situation with respect to that of others—indeed, their own “self-knowledge” (ibid: 76)—these are for Gramsci what constituted “culture” (Gramsci 2000 [1971]: 56-59). But unlike Marx and others in the Marxian tradition, Gramsci did not believe that consciousness springs forth from cultural critique; on the contrary, he eschewed a teleological view of human history, preferring instead a more cautious, contingent stance on the potential for revolutionary politics.

Using this conceptualization of culture, to what extent can it be said that the peripheralized middle class are critically self-aware of their position within Bangalore’s social

fabric and the larger political-economic forces that inscribe them? Certainly, it is difficult to generalize based on one set of informants alone; Gramsci himself, moreover, resisted the view that subordinate groups have a homogenous viewpoint (Crehan 2002). But there are certain recurring themes that invariably emerged in my interviews (and not necessarily a result of pointed questioning but more organically) that are important to flag here. It is especially important to flag these in light of the existing literature's assertion of the antipathy of India's middle class vis-à-vis the poor.

I found that although the peripheralized middle class does differentiate itself from the absolute poor—as Agnes did with respect to her aversion to fetching “water in pots”, an act she felt would be “embarrassing” for her—virtually across the board, there is far more antipathy directed at the wealthy. That is, peripheralized members of the middle class are extremely wary of the all-too prominent moorings of Bangalore's new economy—the “IT sector”, “call center people”, “big people”, “big apartment buildings”, and the “richer classes”—and were sensitive to their own marginal positions vis-à-vis the globalizing elite. “I am not a rich man. You can say that I'm in between middle and upper middle class”, one of them reflected.

Their resentment towards the rich was so tangible that it sometimes made for awkward conversation on my part: “after talking to us about our water problems, I'm sure *you* will go back to a place that has no water problems” one resident confronted me bluntly one day, causing me to shift uncomfortably in my seat. None of my interviews revealed antagonisms directed at the poor or slums (of which there are admittedly fewer than other cities). On the contrary, frustration against the “wasteful” practices of the elite—*especially* in relation to water use—was evident both in my discussions with RWAs, as well as lower-level bureaucrats at the utility that are also undoubtedly part of this social grouping. “What big people use for their gardens is more than I consume in one day” one resident of Byatarayanapura asserted, while another in KR Puram took issue with the fact that “people in richer areas are wasting water by washing their cars with umpteen buckets of water”. A number of comparable comments were made, one in relation to the new Bangalore International Airport: “[The] new airport has five star and seven star hotels and they [the water board] have to supply continuously to them. But after 16 years, with all of our efforts, we haven't gotten any water”. Even though not entirely accurate, the notion that “only apartments are having Cauvery water because they pay *crores*” was quite ubiquitous, as was the perception that “big apartments like Purvankara [major corporate developer] get water but we are not getting”. Shama Rao tied such trends to a broader economic trajectory and despaired about the city's future:

Once the IT sector came, these multi-stories started. Now land is even less available. But what will all the multi-stories do? In Malleshwaram [wealthy neighborhood in north Bangalore], Brigade [another major corporate developer] is building a complex with 2,500 flats! How can they allow new apartments? How will they manage for water or for sanitation? If in *Malleshwaram*, you are not getting proper water, how can you think about Greater Bangalore areas? Where is the end? (Interview on July 17, 2008).

Anupama, a resident of KR Puram on the eastern fringes of Bangalore lashed out at the irony of “calling Bangalore world-class, metropolitan, and cosmopolitan”, when “they are just making

everybody's lives miserable". She continued: "they just want to show off a tag like 'Bruhath Bengaluru' but it doesn't mean anything".

Viewpoints suggesting that Bangalore's unsustainable resource intensity can be attributed to the consumption patterns of the rich lie in stark contrast to what Amita Baviskar (2002) finds are the attitudes of Delhi's "urban bourgeois environmentalists" who tend to underplay questions of equity, and attribute urban environmental problems instead to rural poverty, overpopulation, or ignorance. Drawing on Baviskar, Carol Upadhyia (2009: 266) similarly suggests that Bangalore's urban middle classes do not concern themselves with broader questions of water equity and allocation because "water distribution ensures that middle class and elite neighborhoods receive adequate water (augmented by private supplies), while it is the urban poor who suffer from erratic supply". She contends, moreover, that although some members of Bangalore's "new" middle class—as exemplified by IT professionals—do have a "social conscience", questions of equity and sustainability typically do not foreground their agendas. This is true to a large extent: if middle class groups engage in resource-conscious behavior at all, it is largely out of necessity or frugality rather than an attitude of sustainability *per se* (see for instance the revival of a "dry colony" through rainwater harvesting in Kumar 2008a). At the same time, we should be careful not to generalize the views of a broader and much more heterogeneous middle class based on the example of the so-called "new" middle class. As discussed above, in contrast to Upadhyia's (ibid) study, I found that much of the peripheralized middle class does *not* in fact receive "adequate water" relative to the elite, and is quite aware of questions of distributional justice.

Take the example of Siva Prasad, a retired lawyer from a revenue layout of Ramamurthy Nagar on the northeastern fringes. Unprompted, Prasad reflected on what he perceived as broader socio-economic trends in recent history underpinning economic inequality today:

What is the total requirement of an upper-middle class family? Take that amount as "X". Call center people get "10X"; they might spend "9X". They can also offer the tanker fellow some extra money and get more water. The economic disparity is multiplying like anything in India [*sic*]. In the first five-year plan, there used to be equal attention to agriculture and other areas. Now they are pouring everything into the IT sector. [The notion of] per capita wealth is total bogus. Seventy per cent of the population is making less than Rs. 2,000 per month. Bangalore is the worst in terms of disparity (Interview on July 17, 2008).

In a 2005 letter to the *Vijay Times*¹⁰⁵, Shama Rao vocalized his own preoccupation with questions of distribution when he wrote "When the country has innumerable problems like unemployment, poverty, illiteracy, and corruption...do we need to send a man to the moon by spending Rs 20,000 *crores*?" Again, ahead of the union budget in 2006, he insisted to the *Deccan Herald*: "our finance minister should allocate more funds for a minimum basic necessity program" and "try further to resolve unemployment and poverty after providing minimum basic necessity [*sic*]." As Upadhyia rightly points out, while such views do not amount to a broader and more inclusive political agenda—indeed, middle class associationism at the periphery is still

¹⁰⁵ See "Going to the moon" in letters to the editor by AV Shama Rao in *Vijay Times*, November 16, 2006 and "Basic needs" by the same writer in *Deccan Herald*, February 26, 2006.

largely obsessed with the minutiae of neighborhoods as I discuss below—they do complicate our understanding of middle class subjectivities. The assumption that the middle classes are universally aligned with the imperatives of consumer-centered development, economic globalization, or neoliberal reforms “tends to reinforce the notion of the middle class as a singular category pitted against poorer groups” (Kamath and Vijayabaskar 2009).

In summary, this section has attempted to situate the peripheralized middle class in relation to the existing literature on India’s middle classes, as well as explain the historical roots of middle class differentiation. The study revealed four key characteristics. First, often in undertaking more than one job, the livelihoods of the peripheralized middle encompass a wide range—from the older public sector guard to contemporary small businesses to a range of salaried white-collar jobs. Second, while a third of my informants moved to the fringes prior to the advent of liberalization, two-thirds made their home there in the post-liberalization period. While the imbrications between informality and liberalization are clear, it also clear that as the middle classes are becoming increasingly differentiated, so too is informality. Third, while the desire for home ownership originally motivated illegal settlement at the periphery—fuelled in turn by lower-level officials eager to consolidate their authority—reflecting back on their situations today, several informants sought to deflect blame on to the guiles of unscrupulous developers. Thus in the current moment, the local state and developer—and not the revenue layout victim—is to blame for the mess. Finally, while it is by no means an indication of critical consciousness or of progressive politics, the fact that the peripheralized middle class are aware and resentful of the unsustainable practices of the rich also means that they differ quite starkly from “bourgeois environmentalists” who are prone to locating India’s urban problems in the poor. The subjectivities of the peripheralized middle class differ markedly from the “new” middle class, helping us in turn to unpack its associational politics.

6.3. The “Power of Pressure”

Blurred boundaries

That is the *power of pressure*. We pressure the government officers to carry out works here. We never let them go! I have very good rapport with all the concerned department officers. They all come to my house immediately when I call and also when *they* have some work with *me*. So by mutually helping each other, and with mutual understanding, I am able to bring funds not only to my ward but also for the surrounding wards that are connected to my wards. No other councilor has been able to bring in such huge funds as me. Compare any other area with mine and see the difference. Ask the Commissioner of BBMP [Bruhath Bengaluru Mahanagara Palike]! (Interview with Ravi Purshottam, President, Arakere RWA on July 8, 2008).

One unusually sultry afternoon in the summer of 2008, Prasanna and I found ourselves deep in conversation with Ravi Purshottam, the president of a large federation of RWAs in Arakere, Ward 19 of Bommanahalli. Formerly the BJP councilor of the ward and reelected as

councilor in the 2010 Greater Bangalore City Corporation elections¹⁰⁶, Purshottam had caught my attention because of what I found to be a fascinating double role: he was both an association president *and* a politician. Indeed he came from a lineage of politicians: his wife and brother, too, had successfully contested and won ward elections in the past decade. After having us served fresh-lime juice at his airy and ostentatious house in a revenue layout in Arakere, we were escorted to his small air-conditioned office around the corner where we began our conversation. His assistant sat behind us, and every so often, Purshottam would glance over our shoulders at him with a simple *ilvaa?* [isn't it?], and in turn, his assistant would pipe up with a dutiful *hauudu sar* [yes sir] and proceed to provide supplemental information and data when called upon. Ethnographers of the state might recognize this as a classic self-validating rhetorical strategy among politicians in India (Gupta 2006 [1995]).

Purshottam was president of a federation of nearly 40 associations in the area, representing around 50,000 people belonging to “the middle class and bit below middle class [*sic*]” as he put it. With freshly tarred roads and borewells, Arakere looked less like a stereotypical revenue layout and more like a planned BDA-approved pocket. I culled the quote above from his reply to the question “How is it that you have managed to improve this area so much?” He continued when we pressed the issue further: “In other areas, no-one is there to fight for services! You have to be like us—fighting for every little thing”. Indeed, he seemed to be skilled at this art. In a two-hour interview that focused primarily on the Greater Bangalore water project, Purshottam picked up his cell phone and dialed the water board’s local maintenance engineer five times to clarify the payment policy, the penalty policy, tenure documents needed to be eligible for payment, the expected date of water delivery, and progress on laying the pipes. It was not as if he did not already *know* the answers to these questions. Yet each time he dialed the increasingly exasperated engineer, Purshottam insisted on putting him on speakerphone with a half-grin across his face so that Prasanna and I could hear—gestures that surely sought to demonstrate his relation of power over the engineer. Purshottam’s political ties in this case seemed to be invaluable in enhancing “the power of pressure” over the lower-level bureaucracy, making him a particularly effective association president to boot.

When we walked around the neighborhood with Ravi Purshottam after our interview, he introduced us to a few residents in the area. One of them glowingly remarked: “Ravi is the best association president in this area. Things get done here only because of him. I hope he gets elected next term!” I smiled at his response, but then paused to ask him which elections he was speaking of—the anticipated city elections or elections to nominate the office bearers¹⁰⁷ for the association. He shot back “both!” The ethnography thus revealed that common assumptions in the literature about the distance that middle class associations maintain from electoral politics are simply not accurate in the case of the peripheralized middle class. With his independent party symbol as a groundwater hand pump, Shama Rao, too, had contested the previous round of ward-level elections on the eastern fringes of Bangalore. “Sometimes I feel that even though politics is corrupt, instead of leaving it, we should try and join them and improve them. This is the only

¹⁰⁶ Purshottam was the councilor between 2001 and 2006. From November 2006, elections were indefinitely suspended as plans to merge Bangalore with eight surrounding municipalities and 110 villages were afoot, and ward boundaries and political constituencies needed to be redrawn. He won when elections were finally held in March 2010.

¹⁰⁷ I.e. the president, vice-president, secretary, and treasurer

way to make some difference”, he had reflected. On a pamphlet that he handed me from his campaign a few years ago, his statement read: “My promise, if elected, is that I am available to you. You need not run from pillar to post for your problems. Since I myself am a sufferer, I know your sufferings”.

Rao lost that year because he was not affiliated to any major political party and could not garner the required number of votes as a result. But the political roles and political aspirations of characters like Rao and Purushottam reveal some critical aspects of peri-urban middle class associationism. Not only does a politician-cum-association president like Ravi Purshottam patently embody the “unclear, blurred, porous or mobile” (Fuller and Harriss 2000: 10; see also Gupta 2006 [1995]) boundary between state and society, but, more generally, my ethnography found that associational strategies catering to the peripheralized middle class blur lines between civic activism and the messy terrain of electoral politics. This important finding lies in marked contrast to a literature that overwhelmingly caricatures urban middle class associations in India as maintaining a distance from electoral politics—in part because, as Coelho and Venkat rightly point out (2009), little detailed empirical research exists on them.

While directly contesting elections is one strategy among the peripheralized middle class, in other cases, the mere *threat* of “putting a up candidate for elections” is enough to provide leverage vis-à-vis politicians. Take the example of the JP Nagar 7th and 8th Phase Residents Welfare Federation on the southern-most edges of Bangalore. Much like the Arakere federation, this organization has a large membership representing several revenue layouts in Bommanahalli that has fought for schools, road connectivity, and water supply over the years. “We are a *sanghatana* [association]”¹⁰⁸ the president of the federation, Jagdish, told me proudly. “We make sure we strengthen ourselves. When we are together, we have power”. Its mission statement is “to represent the resident welfare associations as also other associations affiliated to the Federation in matters relating to infrastructure, civic amenities, legal issues with civic authorities, service providers and the government, conduct cultural programs and festivals... etc [*sic*]”. Importantly, because of its influential membership of approximately 200,000 people, politicians frequently court it for votes, as Jagdish told me in an interview:

Just before the elections, we told the candidates that you are free to come to our layouts and canvas. We have grown to such a stature that candidates come to us and ask *us* to help *them* out. We are ourselves thinking of putting a candidate up for election! We don’t have any political ambition, none of us—at least not the present office bearers. But they really got scared. They came to talk to us and they even offered us money. So we told all three candidates, if you don’t do whatever we ask for, you guys are going to get into trouble (Interview on July 9, 2008).

He also mentioned that the federation organized a large pre-election¹⁰⁹ convention in 2008 to which all major party candidates (i.e. BJP, Congress and Janata Dal (S)) were invited and asked to field questions from residents. He described the event in his own words as:

¹⁰⁸ Note that here the president did not use the word *vedike* [platform] here unlike the DYFI (see Chapter 3).

¹⁰⁹ In May 2008, Bangalore held elections for seats in the state legislative assembly and legislative cabinet.

In this function, we ensured that questions were already given to us from the respective layouts and we gave the questions to the candidates beforehand. We didn't want to make it embarrassing for them! Generally speaking, the better orator won, not the party. We also told the candidates at the function: give us a date when the sanitary system will get repaired, a *precise* date. One of them said 6-8 months. We said: OK, we'll give you one year's time; if it doesn't happen before that, you're going to be in trouble! (Interview on July 9, 2008).

Such threats, Jagdish explained to me, are real given the significant number of people the association represents: "44 layouts, 1.8 *lakh*, people and about 40,000 houses are under our jurisdiction" he rattled off. This brought me to the question of "vote bank" politics: to what extent can the peripheralized middle class be seen to mimic the mass electoral politics that are typically associated with India's poor? When questioned specifically about his stance on electoral politics and whether the promise (or threat) of voting is used as an associational strategy, Jagdish humorously but tellingly offered:

See, for the past 14 years we have been living without sanitation, roads, water, and drainage. For people like us, when someone gets the work done, we vote for them. Suppose tomorrow Malini comes and lays the road and stands for elections, we'll vote for you. And if Malini says: "hey it's not me, but actually my cousin", then we'll vote for your cousin. If tomorrow someone comes and does sanitary work here, we'll vote for them. If MLA Krishnappa gets things done, he'll win next term as well (Interview on July 9, 2008).

The behavior of voting for whoever "gets things done", I found, was rather perplexingly contrasted with Jagdish's assertion of "not bringing politics into the association". Encountering an identical stance prevalent among civil society associations in Chennai, Coelho and Venkat (2009) perceptively suggest that in most cases, the "politics" here refers to power struggles and conflicts *internal* to the association, and does not preclude some form of electoral politics. While this may be true, I learned that what Jagdish meant is even more specific and explained by what Colin McFarlane (2004) calls "non-party alignment". McFarlane uses this terminology to describe an insurgent citizenship strategy he argues characterizes a partnership for Mumbai's poor—the so-called "Alliance". Expressly not meaning political withdrawal, the Alliance's "non-party alignment" suggests *undiscriminating engagement* with political parties. Specifically, McFarlane (ibid: 907) explains: "it is a strategy of negotiating with whoever is in power, of avoiding party politics, avoiding ideological debates, and seeking out collaborations and partnerships with the state".

I find this to be an accurate description of the associationism of Bangalore's peripheralized middle class. By avowing that the association does not "bring politics into it", what Jagdish meant is not simply that it avoided internal power games (indeed this is virtually impossible), but that it did not allow office bearers to hail from one of the three dominant political parties in Bangalore. Jagdish later explained when I sought clarification for his alleged eschewal of politics: "I use my connections to get the job done for our federation. But we don't

entertain politicians in office bearer posts because the only intention of politicians is to win elections”. Thus, while not a “vote bank” in the sense of representing a captured constituency that can sometimes mark the politics of the poor¹¹⁰, peri-urban associations are nonetheless adept at playing one elected representative off another, leveraging the threat of voting numbers, and working in so-called partnership with the state. Jagdish, for instance, is fully aware of how to “work” the well-oiled political machinery¹¹¹:

We told our MLA that he knows the situation in our area well; he knows that there is plenty of work to be done, so there are plenty of opportunities to make money! You understand what I’m saying, right? More work = more contracts = more money! So we openly told him: *Illi sikkaapatte kelsa ide* [there is a lot of work to be done here]. *Nimduu kelsa aagathe, namduu kelsa aagathe* [your work will also get done, our work will also get done]. *Maadkodi ni!* [just do the work already]! Then [the] MLA laughed nervously and said “*een saar, ii tharaa mathaadthira?*” [what sir, how can you talk like this?] because he knew it was true! (Interview on July 9, 2008)

In insinuating “your work will also get done, our work will also get done”, Jagdish makes a subtle reference to the politician’s taken-for-granted proclivity to rent seek. Here, he was attempting to convince the MLA that “getting work done” via the many potential work contracts in the neighborhood would be expedient to both the politician and residents. As argued in Chapter 3, the idea that all politicians are corrupt is commonsensical in India. Yet rather than dismiss these narratives by seeking to replace them with “internationally mobile” (Gupta 2006 [1995]) techno-fixes of accountability and transparency, we must evaluate their basis in affective relations between citizens and the state. Although it might go against the ethico-moral liberal grain of how governance *should* work, the ethnography found that revenue layout associations are rather matter-of-factly able to leverage (the insinuation of) petty corruption and use it to demand material improvements in the area. These deeply embedded relations and cultural meanings of “corruption”/“accountability” can be unfathomable to the outsider, but should not be underestimated as a result.

Leveraging Harriss’ (2005) “dirty river” of politics, however, is not the only tactic that Jagdish’s middle class federation uses. The tropes of partnership and civility were equally invoked. For instance, one member of Jagdish’s federation discussed how important it is to act *with* the government rather than confrontationally or threateningly:

¹¹⁰ One day, for instance, I came upon the poor neighborhood of “Weaver’s Colony” in Gottigere, a *grama panchayat* on the far-flung ruralized edges of Bommanahalli in southern Bangalore. Everywhere—on the doors and walls of houses, on the public borewells, on water tankers that ploughed the dirt roads, on the doors of the small-scale household weaving industries—*simply everywhere* were plastered posters and propaganda of the Janata Dal (S) party. *Ivarella Janata Dal illi* [everyone here is Janata Dal] my driver who belonged to the area had told me, mentioning that the party had not lost one election here in recent years. I did not find this situation to exist in the more middle class revenue layouts.

¹¹¹ I borrow the term “work” here from Benjamin (2004: 183) who suggests through the notion of “politics by stealth” that “the poor...work city systems, institutions and politics” on an everyday basis.

Our federation is getting stronger and better known. My visiting card with the name carries a brand name. Earlier we would storm the BMP office and complain. Now all we have to do is to show our visiting card and the commissioner will drop everything for us. We have to work *with* the government not against it. We act as a catalyst between government and residents, and then the government takes us into confidence (Interview on September 18, 2007).

Strategies of working *with* the executive branch of government and serving as a “catalyst”, then, are as important to the federation as its entanglements in a variety of electoral maneuverings. Specifically these more civilized approaches involve raising awareness and consent around government programs and reforms, collecting taxes on behalf of members, submitting writ petitions (“representations”) to the water board or other branches of the government setting forth demands in a civilized manner rather than “storming” government offices, and holding genteel “cultural programs” to “build morale” to which government officials are typically invited as guests of honor. The Kannada and Hindu foci of these programs represent vernacular cultural forms that the elite English-speaking middle class is not as likely to identify with and thus seldom attend.

In brief, in line with recent research (e.g. Coelho and Venkat 2009; Kamath and Vijayabaskar 2009; Zerah 2007), my findings on the multiple, often contradictory, strategies and positionalities of the peripheralized middle class thus complicate the scholarship on associationism in India. Existing studies tend to draw liberally on Partha Chatterjee’s (2001; 2004) typology of “civil society” versus “political society”. According to this formulation, the main difference between the two is that “civil society” is in reality restricted to a small minority of citizens and their “legitimate associations” who demand “the attention of governmental authorities as a matter of right, because they represent citizens who observe the law” (Chatterjee 2004: 137). On the other hand, demands made by the masses in “political society”—those who live in unauthorized slums, for instance—are most often founded on a violation of the law. Claims in political society are made “on a political terrain where, on the one hand, governmental agencies have a public obligation to look after the poor and underprivileged and, on the other, particular population groups receive attention from those agencies according to calculations of political expediency” (Chatterjee 2004: 40).

Chatterjee’s thesis provides food for thought and helps to situate a diverse range of scholars working on the city, but it remains purely a starting point—a heuristic through which to explore the actually existing politics of the governed. When combined with the anemia in the literature on the diversity of India’s middle classes, an over-reliance on this typology results in a problematic mapping of the middle class onto a law-abiding, rights bearing, technocratic-oriented “civil society” and the poor onto the legally ambiguous, politically manipulable realm of “political society”. Concurring with Chatterjee, John Harriss (2005: 5), for instance, surmises that “the evidence on participation in associational practices in Indian cities shows that it is rather heavily skewed towards those people with higher incomes and higher levels of education”—i.e. skewed towards citizens who practice what he terms a “new politics”. The “new politics”, he argues, “is strongly associated with a technocratic, rationalizing modernism. It is about ‘problem-solving’ rather than about democracy”. On the other hand, India’s poor or “denizens” still depend heavily upon the “old politics” of political parties and trade unions—

“which is indeed messy and often involves ‘dirty politics’” (ibid). Accordingly, the “new politics” can be found in what Chatterjee refers to as “civil society” whereas the “old” can be found in “political society”.

Such either/or binary mappings are not helpful in explaining the politics of Bangalore’s peripheralized middle class. Rather, as evidenced by the empirical material above, it is my contention that these associations exhibit characteristics of both civil *and* political society. That the settlements of revenue layout dwellers are “unauthorized” is obvious—and most admit this to be the case. But residents also make claims to legality as a matter of right through negotiating regularization and access to services. As described in Chapter 2, revenue layouts must make incremental improvements to their neighborhoods over the span of several years—what Benjamin (2004) suggests are the “politics by stealth” that engage the lower and more permeable layers of “porous bureaucracy”. To negotiate water, drains, and other basic amenities, revenue layout dwellers must be masterful at “the power of pressure”—the incessant lobbying of politicians and bureaucrats, street protests, *and* the more orderly activities of civil society. Using Harriss’ (2005) terminology, then, the federations of Purshottam and Jagdish’s described above and Lakshman Kumar’s *vedike* [platform] described in Chapter 3 can be seen to engage in *both* the “new” politics of civil society and the “old” politics of electoral mobilization—and, as in the *vedike*, even party and trade union alliances.

Finally, my findings do not concur with those of several studies that suggest that the strategies and discourses of urban middle class associations in India are predicated on a politics of exclusion and the reproduction of distance from slum dwellers, street hawkers, and other “unclean” or poorer elements of the city. Anjaria’s (2006) research, for instance, finds that for the middle class associations of Mumbai, street hawkers are “eye sores” that prevent the city from attaining world-class status. Again, Harriss (2007: 2722) notes that associations in Chennai are largely “of and for ‘consumer-citizen’ subjects of the neoliberal state, and much of the activity that it sustains is directed at disciplining the urban poor.” These are not subjectivities that accurately describe those of the peripheralized middle class as I discussed above, much less their associational politics. In fact, the ethnography showed that Bangalore’s peripheralized middle class do not distance themselves from the poor so much as they resent the rich. Their associational activity, moreover, often entails struggles *against* the more elite members of the middle class. Members of Jagdish’s federation, for instance, have launched a sustained campaign to persuade their richer apartment complex neighbors to open up their closed-off gates to the public to allow traffic thoroughfare since “nobody should be allowed to close off public thoroughfares or spaces”. Similarly, one of Ravi Purshottam most successful battles to date according to him was to convince the developer of a neighboring apartment complex to donate 2% of its profits to surrounding layouts. “Large flats damage the roads around when they are being built”, he explained to me, “so there’s a law that they have to share 2% of the profits to the surrounding areas”. Because the developer violated these terms, Purshottam and his association brought the issue in front of the city government and forced the developer to cough up the money. “Now the money will be shared among the layouts in a one kilometer radius”, he happily told me.

The conduct of payment

If I have shown so far that the conduct of complaining is foundational to the insurgent citizenship practices of the frontier, and grievances are made both through the protest politics of *vedikes* [platforms] and the more orderly and “civilized” *sanghas* [associations], then there is yet another critical behavior we must examine. Without due attention to what I am calling “the conduct of payment”, we risk an incomplete picture of the politics of the peripheralized middle class. Let me begin with something Anupama, a resident in a revenue layout of KR Puram said:

We are always fined; we are always taxed. Property tax we pay. Betterment charges we pay. Regularization charges we pay. What do you call it...water charges we pay. BESCOM [electricity] is being paid. All our lives, we pay.

In an extension of her work on economic regulation in the Chad Basin, Janet Roitman (2007) usefully expounds on the concept of “economic citizenship” to suggest that fiscal relations between citizens and the state—in the sense of rights and responsibilities associated with the act of transferring wealth to the state—are far from given. Rather, these relations comprise a terrain of intense struggle and negotiation, at the core of which lies the very definition of what it means to be a citizen. Across my interviews and in a range of local newspaper accounts I came across during my fieldwork, I found that peripheral residents routinely discussed their conduct of payment—their behavior of furnishing to the local state a litany of taxes, charges, and fees that befell them. Following Roitman, I am persuaded by the idea that we must not take at face value the nature of fiscal and monetary relations between citizens and the state. We must interrogate instead the *meaning* and *historicity* of payment. In other words, in unauthorized layouts at the fringes of Bangalore, what does paying “all our lives” signify for residents like Anupama? I argue that the conduct of payment lies at the heart of how we decipher the associational politics of the peripheralized middle class, and in turn, how water reforms are negotiated and take root.

To start with, a few details are in order. The most important payment that residents routinely make (and speak at length about) is property tax paid to the local *panchayat* or municipal council. Paying property taxes in turn ensures the procurement of a *khata* [literally “account”]—a document proving that the property is registered in the name of an owner thereby conferring ownership. It is not unusual for properties with so-called “bogus” property records (e.g. those forged or illegally registered in the green belt) to be provided with *khata*s upon payment of taxes. According to Shama Rao, people paid taxes because “once you start paying taxes, you could start demanding things”; conversely, “municipalities were also in need of revenues so they expected taxes”. *Khata*s, moreover, enable residents to procure bank loans thereby setting in motion a gradual process of wealth accumulation through which they invest in their homes and surroundings.

In addition to property tax payments, upon an amendment to the Karnataka Municipalities Act in 2001, fringe *panchayats* and municipalities were allowed to collect “improvement charges” also known as “betterment charges” as a prerequisite to issuing *khata*s. With their origins in the post-independence era of the City Improvement Trust Board (CITB) discussed in Chapter 2, “betterment charges” were periodic fees assessed by the city corporation to bring outlying rural-urban areas on par with “planned” areas and thereby “regularize” them. In return for paying betterment charges, a minimum level of services, including roads, streetlights,

borewells, and drains are provided. Since 2001, the state government has variously revoked¹¹², revised, and reinstated betterment charges and the ability of local governments to authorize property claims and ownership.

Clearly, not everyone pays these miscellaneous taxes and charges—and most senior administrators in the Government of Karnataka assert that tax collection is low in Bangalore. Yet, the significant numbers that do pay miscellaneous taxes and charges at the periphery, particularly those people that are rallied by their association presidents to do so, are highly sensitive about the topic, insisting that their taxes are even higher than their neighbors in the core city. As Jagdish told me:

We pay more taxes than in the city. For instance, my uncle who is staying in Banashankari 2nd stage [area in south Bangalore], he pays just Rs. 2,000-3,000 for a 40 x 40 sq. ft. house, whereas I'm paying Rs 8,000 for a smaller house per year. And this we have been paying for the past four or five years (Interview on July 9, 2008).

Siva Prasad explained this was because of a change in the property tax policy instituted via the Nirmala Nagara reforms (discussed in Chapter 3), wherein participating municipalities shifted from assessing tax based on a predetermined “annual rental value” to a “capital value system”. In the latter, tax is intrinsically linked to the value of land and can therefore be much higher: “Right from 2003, we are paying capital value system of tax which amounts to more than what people in [the] corporation are paying” he contended, echoing Jagdish and several other peri-urban taxpayers.

Over the course of multiple discussions, I learned that the conduct of payment is shaped not only by individual actions, but is often collectivized. It is in fact a source of group pride. When questioned about the activities that they typically undertake on behalf of associations, presidents unanimously discussed their annual drive to ensure property tax payment in the neighborhood. “We are the best tax payers in this CMC!” a revenue layout dweller in Vidyaranyapura on the northern fringes of Bangalore proudly declared after explaining how he had personally knocked on people’s doors to encourage them to pay. Importantly, peripheral urban dwellers trust that these actions provide leverage in making demands on the state while also conferring legitimacy on their settlements. That is, by paying taxes and betterment charges, residents assert their right to *not* being considered “illegal”. For Holston, this propertied vision of citizenship is the crux of what marks insurgent citizenship practices in peripheral Sao Paulo. Specifically, he calls this conceptualization of rights “contributor rights”:

...contributor rights concern...the “rights to the city” that were fundamental in mobilizing the new practices of citizenship in the peripheries. I call them contributor rights because residents advance them as legitimate claims on the basis of their contributions to the city itself—to its construction through their building of homes and neighborhoods, to city government through their payment

¹¹² For instance, “in 2003, in a bid to stop illegal layouts from further mushrooming, the state government asked all municipal bodies to stop collecting betterment charges from revenue layouts” (Vincent and Aradhya 2008).

of taxes, and to the city's economy through their consumption (Holston 2008: 260).

However, there critical differences between Holston's "contributor rights" and my own reading of the conduct of payment. For Holston, "contributor rights" are based fundamentally on the conjoined identities of "property owner, tax payer, and mass consumer" (ibid). These identities, he argues, engage an "entirely different agency" (ibid: 262) than that embedded in state-sponsored welfare rights. Instead of being defined by relations of patronage, the agency associated with contributor rights is defined by "self-determination, accomplishment, and earned independence" (ibid: 263). He goes further by suggesting that contributor rights can be seen as "stakeholder rights" in the sense that through this identity triumvirate, peri-urban residents come to see themselves as possessing of "stakes" in the city.

Firstly, I resist the temptation to deploy the term "stakeholder rights"—not least because Bangalore's peripheral residents are deeply averse to the term "stakeholder" in its current neoliberalized avatar. But more important than this semantic quibble, contrary to Holston, I see that the agency attached to the conduct of payment as inextricably dependent on relations with the state. That is, as Bangalore's peripheral residents pay up various charges, contributions, and fees—including, today, the beneficiary capital contribution for water and its outrageous penalty—they are becoming increasingly embroiled in relations with the state, not independent of them. I suggest, therefore, that in the current neoliberal moment, enhanced monetary transfers to the state are enhancing the nature of claims made on the state and bringing citizens and the state into greater proximity.

6.4. Appropriations and Articulations

"I have paid development charges at Dasarahalli CMC for my property, paying property tax regularly, have a *khatha* issued by the CMC and paid beneficiary contribution for Cauvery water connection. But how fair is it to say that the property is illegal?", questions Mr. Puttaswamy, who owns a house on revenue plot here (Deccan Herald 2005).

Paying for water, claiming citizenship

As discussed, the participatory rhetoric in the Greater Bangalore water project justifies the need for "beneficiary capital contributions" for financing capital works (the laying of the pipes, etc.) on the basis of "elevating citizens into the status of stakeholders" (GoK 2005a). By the end of 2007 approximately Rs. 20 billion had been amassed across the eight peripheral municipalities participating in the project—an amount that was double that originally anticipated, bringing payments by citizens up to nearly 50% of the project's total cost. Despite assertions by the state government that corporate developers had furnished a greater proportion of the total beneficiary contributions, the fact remains that a significant number of revenue layout homeowners did come forth with their dues *plus* interest for tardy payment when applicable. I found that in many localities, residents had deposited lump-sum amounts collected across a revenue layout. After playing an important role in convincing everyone in the layout to pay up, the office bearers of individual RWAs, moreover, kept careful records of who had paid and could

easily rattle off the total number of households that had contributed and the total amount contributed when I questioned them. They further produced files of photocopied records documenting evidence of each household's *chalan* or the "cash paid" receipt that it had received upon making its deposit to the bank.

Why did people pay? Was it because they were convinced by the "stakeholder" rhetoric of the project and were consciously acting via the *World Development Report's* (2004) "short route" to accountability wherein clients are emboldened to exert their power directly over service providers? Not likely. As one resident scoffed when I asked him whether he was aware that he was being dubbed a "stakeholder":

Yes, I saw in the pamphlet that they are using the word "stakeholder". But what is the meaning in calling stakeholder? There's no meaning in the word stakeholder in this Greater Bangalore water project. If they are calling us "stakeholder" then that means we are on the same level as the government. But we are not on the same level. We cannot pay for the service *and* be a stakeholder! Simply they are putting a levy on a fundamental right of the citizen which is the duty of the government to provide and for that calling you as a stakeholder [*sic*]?! (Interview on July 9, 2008).

Shrewdly ascertaining that there is a clear distinction between customers and the city's service providers and that the two cannot both possibly be "stakeholders", the term was found to be quite jarring for many peripheral residents if not downright insulting. With no water flowing in their pipes by the end of 2007 despite having paid up, no information on when it was likely to flow, and an overall crisis of accountability and transparency in the project, the promise of stakeholder-type empowerment indeed rang hollow.

If they were not persuaded by the invitation to be stakeholders, then, perhaps the conduct of payment can be explained by Foucaultian notions of neoliberal moral "responsibilization"—the self-management and self-regulation of individual behavior based on rational assessments of costs and benefits in line with a market logic (Lemke 2001; Ong 2006; Rose 1999; Shamir 2008). However, upon a close reading of associational discourses vis-à-vis GBWASP, I argue that the conduct of payment in this context is related less to a self-reflexive neoliberal ethic than it is to strategic forms of negotiation between citizens and the state involving payment as a form of collective claim making. That is, my reading of participation by RWAs in this project is more Gramscian in that the conduct of payment exposes political agency beyond an internalized and morally driven market calculus. As Moore (1998) reminds us through his analysis of struggles in Zimbabwe, for Gramsci, conceptualizing the agency of the subject—one that is historically formed in relation to and embedded in multiple fields of power—is crucial. I find that payment for piped water supply as per the demands of the current neoliberal moment is part of an ongoing process that allows revenue layout dwellers to fight for recognition and legitimacy.

When questioned about why she had contributed to the project, one Bommanahalli resident, Pushpa, did not differentiate between paying for this market-oriented project and other types of payments to the local government over the years:

We were involved in raising awareness and in educating the members about the Cauvery water scheme. We do the same not only for this scheme, but for any that the government announces. We told everyone that they must pay. See, if we all pay we can raise our voice in a better manner! That's why we get involved (Interview on July 15, 2008).

Not suggesting that payment would result in improved water services, nor even alluding to a rational cost-benefit estimate about why paying was a good idea, Pushpa spoke instead about how payment enabled all of them to “raise [their] voice in a better manner”, a statement that resembles Shama Rao's statement about property tax above and the collective group-oriented behavior of voicing complaints that I discussed in Chapter 3.

I found that in revenue layouts frequently relegated to an illegal status, where RWAs have historically organized around property tax payments and other propertied notions of citizenship as a way to demand attention from municipal authorities and make claims related to regularization and legality—in short “raise [their] voice”—today, payment for GBWASP is being added to the list of payments that are used to justify the legality of their settlements. As the resident quoted in the *Deccan Herald* newspaper article at the opening of this section said: “how fair is it to call the property illegal?” when he had already furnished the various charges to the municipality, *including* paying for the Cauvery water project. “We paid because we are law-abiding people” offered Siva Prasad preempting criticism that his revenue layout could in any way be considered illegal. I heard comparable statements repeatedly during my fieldwork as well as in newspaper accounts. “What about the money that the government collects under various heads like water, electricity, registration, etc? The state government has no right to declare layouts which are paying these fees as ‘unauthorized’” one resident is quoted as arguing in Jacob (2007). Similarly, Anupama, who had earlier talked about “paying all our lives” insisted:

My pocket belongs to an illegal layout. But all the connections are being paid—e.g. BESCOM being paid, Cauvery water charges are paid, so what's so illegal about it? If you're calling us illegal, how do you collect all these charges?

A central argument of this research, then, is that neoliberal, market-oriented approaches to urban water supply in the contemporary moment have become intertwined with ongoing struggles around land tenure and regularization. The broader theoretical point here is that when put into practice, neoliberalism does not and cannot operate as an autonomous self-sustaining system, but rather inheres itself to and has a parasitical relationship with extant social, cultural, and political circumstances. In short, as Peck et al. (2009) remind us, neoliberalism does not stand separate from other social formations and political projects. There is thus no simple binary between power and resistance; between neoliberalism and its “others”. Because neoliberalism “*necessarily* operates among its others, in environments of multiplex, heterogeneous, and contradictory governance” (ibid: 104, emphasis in original)—“because there is no iron curtain between neoliberalism and its others” (ibid: 105), it is difficult to demarcate a clear separation between neoliberal practices on the one hand and resistance on the other. More often than not, in fact, is it likely that cooptation, appropriation, and compromise result rather than outright rejection or resistance to a neoliberal order of things. It is thus that insurgence is such a relevant concept for grasping the nature of grassroots reaction to neoliberal rule. For Faranak Miraftab

(2009), what characterizes insurgent movements—what she calls “invented” sites of participation—is their ability to appropriate institutionalized or what she calls “invited” spaces of participation to invoke and claim substantive citizenship rights. The ability of insurgent mobilizations to move fluidly across invited and invented spaces is thus a key facet of insurgent citizenship. In Bangalore’s case, we cannot understand how neoliberal water policies take effect at the periphery without understanding the historical geography of unauthorized revenue layout formation—and the particular insurgent conducts and political practices associated with this history. The relative staying power of any market-oriented infrastructure policy that relies on user fees, for that matter, must be understood within a history of payment behavior and meaning attached to payment.

I also found that the terms of payment (“invited participation”) under GBWASP were appropriated and made to work for revenue layout dwellers to claim inclusion in the city. Owing to a history of unauthorized development described earlier, many residents did not possess the documentation necessary to be eligible for the project or possessed fraudulent documents. Revenue layout dwellers thus used the new water policy as an opportunity to fight for legitimacy by petitioning to have the requirement of furnishing property documentation removed from the payment policy. Faced with a flood of petitions from RWAs, a new chair of the water board appointed in 2007 waived the requirement of producing a title deed; to be eligible now, an ‘address proof’ (e.g. a bank statement) alone will suffice.

In yet another example of appropriation, in 2007, shortly after the Greater Bangalore City Corporation was formed by merging the existing city with peripheral areas, in one fell swoop known as the *Akrama Sakrama* (meaning “make right what is wrong”), revenue layout dwellers (who were the prime targets of the scheme) were mandated to pay exorbitantly high fees in order for their settlements to be regularized. Interestingly, associations leveraged payment of the beneficiary contribution, in addition to historic payments of property taxes, betterment charges, and conversion fees as a way to resist paying the *Akrama Sakrama* fees and, further, to make claims about the legitimacy of their settlements. As a result of protests and petitions filed by associations, the Karnataka High Court is currently holding the scheme in abeyance (Jacob 2008).

The notion of articulation, often invoked within a Gramscian theoretical framework, is useful in this analysis. For Stuart Hall, “articulation is a linkage which is not necessary, determined, absolute and essential for all time” (Grossberg and Hall 1986: 53). It is a way of understanding “how ideological elements come, under certain conditions, to cohere together within a discourse” (ibid) and how, in turn, particular struggles become mutually entangled at a conjunctural moment (see also Hart 2007). As Moore (2005: 24) argues drawing on Hall: the concept of “articulation challenges perspectives on power that underwrite regimes of rule within a coherent logic or unitary rationality”. I contend that in the current moment in Bangalore, market-oriented water reforms articulate not only with and through a sedimented history of neighborhood struggle and insurgent associational politics, but also with contemporary land reforms. It is precisely because of these multiple entanglements that market-oriented water reforms gain traction in cities like Bangalore today.

Renegotiating the pricing policy

As Chapter 5 showed, capital contributions and late fines did not result in timely nor sufficient water delivery, bringing to light major disjunctures between project rhetoric and execution. By mid-2007, despite the high collection of capital contributions, water had still not started flowing in the pipes. In total, the project has experienced delays of over 18 months due to prolonged tendering processes and inaccurate or outdated engineering designs that did not account for growth rates and settlement patterns in the periphery.

Similar to what Gupta (2006 [1995] : 130) observes with respect to how development programs often engender contestation— “...it is here that seizing on the fissures and ruptures, the contradictions in the policies, programs, institutions and discourses of ‘the state’ allows people to create possibilities for political action and activism”—I find that GBWASP’s disjunctures, too, were seized upon by RWAs in order to renegotiate the project’s terms. The rhetoric of treating beneficiaries like “stakeholders” that are purported to have a role in the “management of the assets created under the project” (GoK 2005a) provided a particularly stark contrast—and hence rallying point—when held against the poor information flow, untransparent decision-making structures, and delayed delivery of water. In total, the project experienced delays of over three years due to prolonged tendering processes and inaccurate or outdated engineering designs that did not account for growth rates and settlement patterns in the periphery. This prompted associations to use bureaucratic channels to question why residents had been forced to pay late penalties when water delivery itself was delayed, and demand interest payments from the water board on their capital contributions.

To avoid a growing standoff and to restore some faith in the project that had been severely eroded by the end of 2007, the BWSSB took a decision to waive penalty payments altogether starting January 1, 2008 and further allowed payments to be staggered over 24 months rather than be paid in a lump-sum. In some areas, connections have been provided regardless of cash payment based on associational pressure on MLAs. One BWSSB maintenance engineer described this in his own words as:

After this newly elected government what has happened is that it seems the city MLAs insisted that we give water first, then collect payment. Otherwise people were saying ‘We don’t know when you are giving the water. Why should we pay’? Associations also put a lot of pressure on MLAs. So to change that scenario, [the MLAs] said: you give water for one month; you service the line. If they don’t pay, then we will think of other alternatives (Maintenance engineer at BWSSB, August 4, 2008).

According to the engineer, newly elected MLAs recognized that revenue layout residents had been an important source of votes and were eager to appear to be fulfilling promises made during their campaigns. Another engineer echoed the importance of political pressure in the selection of wards prioritized for water supply. He suggested that pressure from the MLA Satish Reddy in ward 10 and 11 of Bommanahalli resulted in water supply to the area:

We can’t really say wards 10 and 11 were originally commissioned [for water supply] but because of political influence from MLA Satish Reddy [of

Bommanahalli], that's why these wards are getting water. The background reason for why they are getting water is only Satish Reddy. He spoke to ministers and to our higher-ups after some residents put some pressure (Interview on July 29, 2009).

The “power of pressure”—in this case, extending from local residents and their associations to the MLA, the BWSSB, and finally to “higher-ups” is critical here. Such statements reveal that the actions of the peripheralized middle class—the conduct of payment, renegotiating the pricing policy with government officials, and lobbying politicians to prioritize water access—differ in important respects from the agency associated with “contributor rights”. For Holston, contributor rights are a conception of rights that insists that payments, whether for property taxes or for services, equate to legitimate membership in the city. Yet, whereas Holston finds that this is an agency defined by “self-determination, accomplishment, and earned independence” (Holston *ibid*: 263) from the state, in this case, I found that relations of political patronage and electoral maneuverings continue to be an important aspect of the politics of the peripheralized middle class. That is, while the conduct of payment, much like contributor rights, is a means of claiming legitimate membership in the city, peripheral residents were also prone to leveraging their newly elected political leaders to claim material benefits, recognizing that in the post-election period, politicians were ready to please. This finding suggests that practices of insurgent citizenship at Bangalore's peripheries are fundamentally about carving spaces of engagement with state authorities. Following experimentation with market rule wherein the state is withdrawing from certain aspects of water provision and now expects citizens to become “stakeholders” in the service provided to them, insurgent political practices are leveraged to make claims to space, property, and belonging in the city.

6.5. Conclusion

An assessment by one of India's leading urban research institutes based in New Delhi states: “The innovative financing structure adopted in the GBWASP is path breaking and its success should pave the way to many such initiatives in future from the ULBs...” (NIUA 2005). As market-based models in India's water sector are deemed “successful”, there is a need to understand their workings on the ground and their mutual imbrication with urban politics—particularly the politics of the periphery where water projects will be increasingly concentrated, and on which little social science research exists.

In this chapter, I have attempted to contribute to a theoretical and empirical understanding of peripheral urban geographies, and how particular claims of associations that inhabit tenuously legal settlements shape and are shaped by neoliberal water reforms. The discussion reveals that in the contemporary Indian metropolis where social and land relations are historically sedimented, and water and land are intricately connected, the implications of “cost recovery” reforms in the water arena extend well beyond this sector.

I argued broadly that cost recovery reforms must be understood as deeply implicated in civic life and meaning. That is, the stakes attached to water reforms in Greater Bangalore today and the calculations underlying participation by middle class residents that are the target of these reforms cannot be understood outside of the history of socio-spatial relations, civic activism, and

associational politics in this area. Relegated to an illegal status by local planning authorities, revenue layout associations have historically made deals with politicians, put pressure on local bureaucrats, and leveraged a the conduct of payment to negotiate regularization and assert the legitimacy of their settlements. Not sufficiently explained by the existing literature on neoliberal moral “responsibilization”—I argued that an understanding of these strategies is necessary to explain how and why associations are involved in participating in and renegotiating the terms of GBWASP. In effect, the interlocutor role that RWAs play succeed in sustaining the reforms agenda. This is not because of a natural convergence between the politics of middle class RWAs and the neoliberal agenda, as some have argued, but rather because the stakes attached to a project like GBWASP extend beyond water access to issues of tenure legality and the right to the city. Such a Gramscian lens is useful for urban scholars attempting to analyze why and how particular types of neoliberal reforms are gaining traction in cities today.

CHAPTER 7

Conclusions: Political-Ecological Contributions to Urban Water Praxis

7.1. Summary of Arguments

In this concluding chapter, I first review the central preoccupations and motivations of the study, its key findings and arguments, and its broader theoretical contributions. I then reflect upon three areas where the political-ecological and multi-sited ethnographic approach taken here can inform strategies for a more reflexive and viable urban water praxis.

This dissertation investigated a new paradigm shaping the delivery of drinking water in cities today as exemplified by a suite of market-oriented institutional and pricing reforms carried out in Bangalore over the past decade. I was interested in the logic of these interventions—how problems relating to water were framed and acted upon by experts—as well as the contestations, compromises, and material implications surrounding their implementation. As an ethnography of policy-making and practice, my research spanned multiple scales and actors, encountering, among others, finance specialists and state bureaucrats; city officials and engineers; and local politicians and peri-urban residents. These are all agents that hold different if not irreconcilable visions of how water should be governed and paid for in the city. When taken together, they allow insight into the landscapes of struggle that constitute and are constituted by contemporary policy imaginaries.

The study was concerned with how these policy imaginaries touch down at the outer edges of Bangalore. With a swelling demographic of existing and would-be property owners, infrastructural inadequacies, and lucrative growth prospects, Bangalore's urban periphery is a dynamic arena for reform experimentation and processes of accumulation. In this sense, the study treats the city's edges as both a periphery and a frontier—a zone of becoming where the borders between exclusion and inclusion, past and future, and illegality and legality are under fierce negotiation. It is here, at the frontier, where new user-pays financing models for piped water extensions are being vetted; it is here that new mechanisms for participatory urban governance are being tried out in various guises; and it is here, ultimately, that the spatial dimensions of economic liberalization are so vividly manifest. My research was motivated by the need for critical social science inquiry into how macroeconomic and, in turn, sectoral policy transformations intersect with the specific socio-spatial, cultural, and political characteristics of peri-urban frontiers.

Unlike several studies that focus on Bangalore's "new" and more elite middle classes inhabiting luxurious suburban enclaves, or conversely, its absolute poor and slums, my study sought to shed light on what I referred to as the *peripheralized middle class*. I suggested that the peripheralized middle class comprise those that are propertied, but that nonetheless do not enjoy the same degree of tenure security and material benefits as their wealthier counterparts. This is a social grouping that we must take seriously if we are to comprehend the future shape and infrastructural attributes of rapidly urbanizing regions everywhere. As I argued in Chapter 2, in Bangalore the emergence of the peripheralized middle class can be traced to the city's distinctive

public sector labor history and to the more recent socio-economic repercussions of its globalizing services sector. Both eras concentrated lower-middle to middle income families in search of affordable housing at the city's unauthorized outskirts. My contribution aimed to explore the politics of this hitherto under-investigated, yet sizeable class segment. I found that, over time, these groups had honed a set of political and civic strategies to lay claim to secure tenure and services, and had developed the wherewithal to confront and appropriate market-oriented water policy reforms.

Through my research, I learned that the logic driving water reforms—one that should be seen against the backdrop of macroeconomic restructuring in the 1990s as the discussion in Chapter 4 laid out—reflects a broader preoccupation with getting both the prices and institutions “right”. From being viewed as the domain of government, a service that must be socialized and, by default, managed through discretionary relations between politicians, local bureaucrats, and citizens, today, water is being recast as a self-sufficient business that cannot be efficiently delivered unless it is undergirded by market discipline. Inscribed within this logic is a set of micro-governing techniques designed to reconstitute citizen-state relations in line with a private sector-inspired, customer-focused ethos. Thus as I showed through the cases of e-grievance redressal, a technology that seeks to streamline and centralize complaint management related to municipal services, and mandatory cash contributions promising to “elevate citizens to the status of stakeholders”, these are paradigmatic strategies that uphold business-like relationships as sound alternatives to the messy patronage politics, dependencies, and inefficiencies of the past.

Yet, for all the rhetoric purporting to overcome the incompetencies of a previous era, today's reform interventions are not only marked by their own set of limitations and exclusions, but they also rely upon and reproduce the power asymmetries of the past, particularly those that structure intra-state relations. This key finding was reflected in both case studies I examined.

As I argued about the first case in Chapter 3, while the bid to “reengineer” local government responsiveness is framed in the pleasing language of customer rights, as it currently stands, the e-grievance redressal system is inherently biased. Complaints pertaining to drinking water and intractable issues such as flooding—often made by the peripheralized middle class on the basis of group solidarities and seldom through individual visits to a customer helpdesk—do not always find their way to the centrally maintained e-grievance database. This is because purposeful action around water is contingent on mining political connections. Protests, face-to-face encounters with local politicians and officials, and organized site inspection visits—as seen through the efforts of a local trade union-affiliated group in Bommanahalli—are popular routes through which civic grievances around water are voiced. While these routes have the potential to yield accountability because they leverage elected representatives and deploy affective relations between citizens and the state, the impersonal e-grievance system lacks these essential stimulators of downward accountability. Instead, based on the partial picture of grievances that it enframes, the system introduces new avenues for senior bureaucrats to surveil and monitor local government employees. Data on the number of grievances made and proportion responded to—considered representative of the state of municipal services—are routinely forwarded to superiors in the state government in order to rank municipalities and reward performance. What we are seeing, then, is that technologies of reform are used to preserve relations of upward

accountability to a much greater extent than relations of downward accountability, unlike what is claimed by reform proponents.

This intra-governmental balance of power is not unusual for the state of Karnataka; this is a state, after all, that has historically concentrated power and technical expertise at higher, unelected echelons of the state's administrative machinery. But the finding does raise the important question of to *whom* exactly accountability is being enhanced in the normatively driven "good" governance reforms agenda.

Similarly, in the second case explored in Chapter 5, I found that decision-making around efforts to extend piped water to Bangalore's peripheries is retained at the level of unelected, parastatal actors. While the rule of parastatal experts is not new for Karnataka, today such actors deploy a distinctly financialized episteme that is profoundly reshaping urban water policy. The main entity steering project design in the case of the Greater Bangalore Water and Sanitation Project, for instance, is KUIDFC—a public sector entity founded in the early 1990s dedicated to enhancing the financial viability of urban infrastructure projects. As a result, rather than a more balanced set of criteria that values knowledge about hydrology and resource sustainability; urban planning and demographics; and the socio-economic, political, and cultural features of people's willingness to pay and willingness to consume, the current water agenda is dictated largely by financial criteria. This privileging of financial indicators and the actors that formulate them overshadows input by locally embedded representatives, a lacuna made even more conspicuous during the three-year hiatus in Bangalore's elected council between 2007-2010. The narrow financial focus and skewed architecture of power have, in turn, produced grave contradictions between the promise and material reality of water access.

Reality looks quite a bit different from the visions portrayed in the highly publicized seminars, media coverage, and glossy briefs proclaiming the Greater Bangalore water project as a "best practice". The project may have been a "best practice", but only to the extent that financial closure was achieved: as Chapter 5 discussed, bonds with investment-grade credit ratings were floated, institutional arrangements for repayment were established, and cash contributions from future "stakeholders" were indeed collected. But seven years after its market-based model was first discussed in KUIDFC's boardroom with USAID and World Bank partners and the collection of cash contributions had begun, and over a decade after the idea of extending water from the Cauvery river to the city's peripheries was first proposed, a majority of the outskirts (80%) still do not have access to piped water.¹¹³ Leave alone the fact that the technical standard of "24x7" continuous supply—proposed in tune with a "world-class" urban imaginary—was not achieved, even sporadic availability at the peripheries cannot be counted on until a further influx of upstream bulk water supply. Basic issues of resource availability and the desirability and feasibility of such an idealized and unsustainable infrastructure option merited far more consideration during the project's conceptualization.

Despite these disjunctures, and based on the "success" of Karnataka's experience with market-based financing for water, the Government of India recently launched a pooled finance development fund with an annual budgetary outlay of Rs. 4 billion to help municipalities access

¹¹³ See Nandi, J. "More Tears Than Water: Core Areas Get Aplenty, While Residents On Outskirts Demand Uniform Supply", *The Times of India*, March 15, 2010.

the market and improve their credit ratings. Global rating company Fitch, not surprisingly, is said to have given the scheme a “thumbs up.”¹¹⁴ With endorsement from influential parties like Fitch, regardless of their effectiveness in actually improving delivery, market-based paradigms for drinking water provision in India are likely to be scaled up in the future. The ambitious Jawaharlal Nehru National Urban Renewal Mission covering 63 cities in India, for example, ties federal funding to the reform of user charges and municipal e-governance, among several other requirements.

Given these policy developments, my dissertation suggests that we should be attentive to the limits and contradictions of market-oriented water governance. We should equally be aware, however, of its hegemonic staying power, and the fact that those affected are able to co-opt market mechanisms and put them to different uses. In brief, we should understand why reforms gain ground despite their limitations. This is particularly crucial given that the recent global financial crisis has thrown into doubt the broader political legitimacy of the neoliberal project, causing some scholars to debate whether we are in fact entering a “post-neoliberal” era. By attempting to delve into the “belly of the beast”—that is, to interrogate the nature of neoliberal rationalities and practices as they transform the urban waterscape in Bangalore—my research contributes to broader theoretical debates on neoliberalism, its forms of rule, and its modes of persistence in three specific ways.

To start with, in contrast to literature that attributes governance and infrastructural transformations in cities today almost exclusively to neoliberal policy drivers (e.g. privatization, corporatization, and commercialization), I sought to decenter neoliberalism. I thus took a more historicized view that was alert to both change and continuity. Neoliberalism is just one of the factors underlying patterns of water access, and it is not always the most consequential. For instance, as I showed in Chapter 2, a longer history of colonial and post-colonial planning—wherein different state actors sought to consolidate their power locally by sanctioning claims to unauthorized land—produced the spectrum of tenure and water access arrangements that we see today. It was this fragmented political process and its subsequent intensification post-liberalization that set in motion the creation of “revenue layouts” and their reliance on groundwater sources, and not neoliberal infrastructural reforms *per se*.

Second, and in a related vein, I found that while a new logic underlying water governance can be discerned in the current moment, in practice, the shape of market-led change is deeply wrapped up in erstwhile and enduring political and institutional formations. Geographies of resource governance can be read like palimpsests—parchments upon which the erasure of earlier forms of rule is attempted but never fully achieved. What many critical scholars are quick to dub neoliberalism in India is actually a concoction of the developmental approaches of yesterday and the pro-market approaches of today. Rather than reify neoliberalism, then, it is more useful to think of ways in which its tropes of market discipline, stakeholding, and accountability take on particular meanings, and become cobbled together with extant political and institutional formations. These are historical particularities that, ironically, can be antithetical to the ideological underpinnings of neoliberalism. The manner in which reform projects and their participatory mechanisms have been implemented in Karnataka continues to be deeply inflected

¹¹⁴ See “Fitch Ratings is upbeat about PFDF guidelines”, *Indian Express*, May 15, 2007.
<http://www.indianexpress.com/news/fitch-ratings-is-upbeat-about-pfdf-guidelines/30926/>

by the state's legacy of bureaucratic control, developmentalism, and centralized decision-making wherein city governments are beholden to state authorities. These legacies are not simply socialist hangovers or stumbling blocks in the march of market progress, as some senior officials in the Government of India are wont to describing it. Rather, they are the defining characteristics of India's homegrown experiments with neoliberalism. It is this uneasy synthesis of neoliberal policies with inherited state-centered institutional forms—the ability of neoliberalism to inhere to its “others”—that marks the staying power of this multiply embedded form of market rule. We must, therefore, comprehend the contexts in which programs of reform are implemented—terrains already deeply etched by institutional idiosyncrasies, political-economic prerogatives, and the dynamics of cultural and political struggle.

Finally, neoliberal projects are embedded not only in macro institutional inheritances, but also the politics of micro institutions—in this case, the neighborhood associations of the peripheralized middle class. Whereas several academic studies insist that India's urban reforms are sustained because of a convergence between urban middle class politics and the goals of reform—claiming that both uphold visions of city governance that are averse to the poor and rooted in notions of stakeholder rights—my research uncovered a different set of reasons for this apparent convergence. As I argued in Chapter 6, the conduct of payment is an insurgent citizenship practice that peripheral residents have honed over time to assert the legality of their settlements vis-à-vis the local government. Much like the act of paying property taxes, contributing cash for water under a new market-oriented policy paradigm serves as a bargaining chip for residents to assert their status as legal citizens of the city. A key finding is that subjects contribute cash not necessarily because they are persuaded into behaving like self-managing, responsible stakeholders, but because subjects align their particular goal of securing the right to live in the city with a broader one for cost recovery. Cash contributions for water were subsequently appropriated by neighborhood associations and used to fend off threats to their legitimacy in the face of a new, punitive tenure regularization policy. Neoliberal hegemony as it relates to and transforms the urban waterscape is therefore essentially fluid and mutable—prone to becoming imbued with a diverse set of localized interests and to taking shape in and through a terrain of neighborhood politics.

7.2. Possibilities for Praxis

Praxis (*n*): ...the synthesis of theory and practice seen as a basis for or condition of political and economic change...(Oxford English Dictionary).

As a social scientist trained amidst a set of interdisciplinary and largely applied environmental scholars, I am often confronted with the ethical questions of whether and how I should offer practicable advice for water practitioners and policy-makers. What can be done to improve on urban water policies in Bangalore and other post-colonial cities confronted with a maelstrom of competing priorities? I do not always find it necessary or useful to answer this question with a firm list of policy “recommendations”. First, it is not always clear that policy is the realm in which social and political change actually happens. The impetus for transformative action can sometimes come from areas we least expect—the everyday unscripted actions of hardworking water engineers, for instance, or the innovative ideas and networks generated by citizen journalism. Influential as they may be, policy-makers are not the only ones to whom the results of research should be communicated. Second, it should be remembered that one of the main goals of ethnography is to expose the nature and consequences of uneven power relations and to make strange the “truths” that we take for granted. By delving under surface appearances and problematizing seemingly commonsensical discourses, the ethnographer often arrives at inconvenient findings that neither fit a neat storyline, nor are readily transferable into blueprints for implementation.

At the same time, it is clear that the gulf between nuanced, politically-sensitive, historically-grounded, “thick” ethnographic analysis on the one hand, and convenient technocratic “solutions” to a given set of “problems” when the solutions *are* the problem on the other is an ever-present one, and needs addressing rather than simply avoiding. There are three areas emerging from my research that could open up possibilities for constructing a more viable urban water praxis. Praxis, rather than strictly policy, suggests conscious, willed action emanating from a variety of sources and is based on a deeper understanding and appreciation of social structures and conditions. Praxis typically implies a synthesis between theory and practice for the purposes of practical action. With an emphasis on inter-scale interactions, an integrative and theoretically informed approach to human-environmental systems, and a multi-method and multi-sited research design, the core tools and theoretical frameworks of political ecology provide one means of thinking through the possibilities for praxis. I briefly sketch these below, discuss recent currents in Bangalore in this vein, and suggest ways to strengthen these trends.

Water’s agencies

As this dissertation has tried to make clear, power relations pertaining to water extend well beyond this “sector”. Struggles over the right to water are as much about the right to the city and claims over land tenure, for instance, as they are about water access and affordability. Human conduct surrounding the use and exchange value of water reflects not only projects of state making, but also underlying attachments to property and landscape. The manner in which water is governed (or not governed), moreover, is inextricably connected to the political economy of land, and broader imaginaries and forces that produce space and identity. Indeed, a diverse set of human agencies and political agendas find expression *through* water, its symbolic meanings, and its material flows.

Rather than confining ourselves, then, to a narrow mentality of “fixing” water agencies charged with controlling and allocating water—boards, directorates, utilities, and municipalities—we should broaden our understanding to include the wider social networks, political projects, and institutions associated with this resource. We should think, in other words, in terms of water’s multiply embedded agencies. One starting place is to recognize that urban water reforms are also about land reforms. Projects to transform the poor into customers, create stakeholders out of fringe dwellers, and turn illegal connections into legal ones can rarely be carried out in isolation of considerations of land tenure. In Bangalore, the neoliberal bid to transform revenue layout dwellers into so-called “stakeholders” of piped water infrastructure had repercussions for how revenue layout dwellers viewed their tenure rights and sense of belonging in the city. This was further complicated—and contradicted—by the jurisdictional expansions of the Bangalore City Corporation and Bangalore Development Authority. The land reforms that accompanied these expansions expressly categorized revenue layout dwellers as illegal, while the cash contribution policy elevated them as stakeholders. Although it could be argued that changes around water and land took place at different times (staggered by some five years), a more reflexive praxis might anticipate the points of overlap and incompatibility between land and water, and respond adaptively when conflicts arise.

We should equally pay heed to the biophysical and ecological inter-connections between waters—groundwater, surface water, rainwater, and wastewater—rather than enforcing the institutional boundaries that manage these resources and thereby denying the agency of natural forces themselves. This is not to suggest an environmental determinism, but rather to put forth a praxis that critically foregrounds agency rather than taking it for granted—one that disrupts the hubris of our grasp over nature’s cycles. Bangalore’s history reveals the dangers of failing to recognize water’s interconnected cycles. The continuous clogging of surface lakes and tanks and their drainage, for instance, has had dire consequences for groundwater through which approximately half of the city’s demand is met. Conversely, in the spate of efforts to bring additional piped Cauvery water supply to the city decade after decade, much less emphasis has been placed on recharging wells in the city through rainwater—estimated to fall at an annual average of 3,000 MLD (Vishwanath 2007). This has ultimately affected the long-term resilience of the city’s water. Even today, in the face of reports of a looming water crisis in the city, decision-makers vest much hope in an additional 500 MLD of piped Cauvery water supply expected to come on line by 2014. Far less attention has been accorded to alternative sources and frameworks beyond the optic of a centralized piped network. A holistic water praxis might recognize the importance of revitalizing a diversity of water sources. Already, supported by rainwater harvesting experts, residential areas of the city have attested to the viability of decentralized options by innovating their own systems of rainwater collection, distribution, and wastewater treatment (see the case study in Kumar 2008b). It would be worth investigating the wider applications of such approaches, while always anticipating the new geographies of inclusion and exclusion produced as a result.

The unwillingness to consider water’s multiple agencies and explore a range of resource and technological options comes down, ultimately, to one key issue: the continued dominance of certain epistemic frameworks in the governance of water. As a colleague recently reminded me, Bangalore’s water board—one of the best-managed utilities in the country according to several

accounts—consists of scores of engineers, finance specialists, and accountants, but not one hydrologist, town planner, or social scientist. The consultants the board hires and its partners in the state government are also largely management and finance aficionados. Older paradigms that viewed water as something to be harnessed through large-scale, state-sponsored, engineering-driven models have been partially replaced by—and conjoined with—“best practice” paradigms that emphasize financial and economic efficiency. As this dissertation has argued, this synthesis between older and newer paradigms is reflective of the nature of neoliberalism itself as a political settlement between newer and existing institutional models. From “24/7” continuous supply, to 100% cost recovery, to 20% “non-revenue water”, utilities and municipalities around the country are being urged to achieve globally accepted norms of (economic) efficiency that presuppose a reliance on a centrally managed piped network, regardless of contextual specificities.

We need to move beyond the horizons of a framework that decontextualizes water and reduces it to a technical-economic realm. A more balanced set of knowledge frameworks in urban water praxis is particularly crucial with respect to the thorny issue of pricing. It is true that domestic water tariffs urgently need revision in Indian cities, but the art of pricing can neither be left to whim, nor to the economists and their tools of marginal cost curves and willingness to pay surveys. Ethnography has a valuable role to play in triangulating existing price-setting methods to understand the conduct of payment. Ethnography can uncover the inconvenient facts about why people pay or do not pay, how they pay as a function of habit and time, and what they expect to bargain for by paying.

Importantly, multi-scaled ethnography can “follow the money” and bring to light the poetics and politics undergirding the various justifications for utility pricing, state revenues and expenditures, and the government’s *own* conduct of borrowing and repaying loans to international agencies for sectoral reforms. This is essential if we are to challenge widely sanctioned discourses of the purported fiscal constraints on public welfare expenditures.

The politics of accountability and the accountability of politics

My provocation to “follow the money” brings me to one of the most important anchoring concepts of the “good governance” agenda today, and one that this dissertation has sought to denaturalize: accountability. Accountability is a declared goal in the official reforms scripts of almost every public sector organization, from municipal services, to poverty alleviation, to education, to health. Much like “participation” and other semantically open-ended terms, “accountability” is a keyword that Raymond Williams (1976 [1983]: 76) might call “warmly persuasive”.

At first glance, no reasonable person could legitimately challenge such a seemingly benign and commonsensical notion, and I often find myself at pains to convey why its naturalization concerns me. Many would agree, however, that like all buzzwords, the concept has become a free-floating and easily co-optable label. By holding out the promise of an entirely different way of doing development, “accountability” is often used in the service of assuaging and creating a consensus for particular interventions, while also justifying business-as-usual projects. As a defining quality of the relationships between citizens and the state, and—especially in Karnataka—*between* various levels of the state apparatus, accountability is

increasingly seen as something that must be measured. Third-party regulators and risk analysts such as credit rating companies are claimed to be impartial arbiters of accountability and transparency standards. As this study has demonstrated, accountability has taken not only a specifically contractualized and marketized flavor in India, but also one that denigrates “politics” in all its big P and little p manifestations. While there is no clear indication if such accounting practices and audit cultures improve livability and for whom, what is clear is that the tools of accountability are deployed selectively to discipline certain actors, while others—those thought to lie “above politics”—are absolved of such scrutiny. The claim to anti-politics is, of course, itself a deeply political act.

How did we get here? How did accountability come to be conceived of as the very *antidote* to politics? Indeed, we live in curious times. We live in a time when people not only harbor a deep mistrust for politicians, but in general, all politics are seen as bad—capable only of getting in the way of all things good. Even to talk of politics is to invoke notions of dirt and misdemeanor. Such derogatory usage contributes to the widespread and dangerous fallacy that accountability can be brought about only if politics are done away with.

This fallacy must be uprooted if we are to have any hope of a world where power is not abused, where those we elect are answerable, where responsibilities are honored, and where ethical citizenship is practiced at all scales, not just the local. It is critical, therefore, that we revalorize the variegated etymologies and discursive associations of politics and the political—including of or relating to the constitution, the art of governing, the study and exercise of power, forms of struggle, organized society (from the *body politic*), the city-state (from *polis*), and citizenship (from *civitas*; closely related to *polis*)¹¹⁵—and re-embed accountability in these meanings.

One starting point is to recognize that the praxis of accountability cannot be devoid of representative democracy; it simply cannot afford to exclude elected representatives. For all the opportunism that may come with running for and holding office, those elected at the city level *are* positioned to protect the health and safety of their constituents. Rather than dismissing all locally elected representatives as lumpen and corrupt and installing parallel “anti-political” governance mechanisms to carry out their jobs—as so many of the educated and powerful of India call for—it is imperative that we find ways to involve councilors and corporators in exercises that are normally confined to the realm of experts. What is needed is greater engagement with the nitty-gritty of water policy and municipal budgets by elected representatives, greater public exposure—as in the promising “Meet the Candidates” events organized by the Bangalore-based, technology-savvy, multi-lingual citizen journalism initiative *Citizen Matters*—and more instances in which councilors can be made answerable and responsive to their constituents, not fewer. Ethnographic research reveals that the social prestige associated with holding office, participating in social networks, and needing to maintain a public face can in fact set in motion effective action by elected representatives. If we are to grasp what drives representatives to be accountable, it is to the culturally saturated amalgams of accountability and corruption that we must turn, and not to the decontextualized definitions offered by proponents of the new managerialism.

¹¹⁵ I am grateful to Ananya Roy for reminding her students and audiences of these etymologies at various forums over the years.

We must also be cognizant of the larger architecture of accountability. Popular and academic narratives that focus on petty corruption in the water sector, for instance, do not acknowledge the much larger and more serious breaches of accountability and transparency that transpire at higher levels, implicating national and state governments, consultants and researchers, and the very rating agencies and financial institutions that call for accountability in the first place. Who is being made accountable to whom and why? Who is *not* being made accountable and why? To what end is accountability being pursued? Who is setting the rules of the game? And what is our own complicity as social science researchers in the design and execution of these rules? Put simply, those insisting on accountability must also be held to account.

The dialectics of participation

Finally, and closely related to the above, this dissertation has wrestled with the idea and practice of citizen participation. Much like accountability, participation is a construct that suffers from overuse and abuse. It is amenable to being tacked on to business-as-usual development interventions, or as a consensus-raising measure in experimental approaches to public service delivery, as in the cash contribution policy to water pipes studied here. Yet, to banish participation as a “new tyranny” as scholars have done, insisting that it is used merely to legitimize a pro-market agenda or to perpetuate social inequities, would be to miss the openings that institutionalized participatory frameworks *do* in fact provide for reworking the substantive conditions of citizenship. The most interesting forms of participation are often those that subvert programmatic approaches, redeploying the rhetoric and mechanisms of technocratic interventions for tactical ends. Even non-conformity in participatory development programs is an important means of expressing political agency and spurring debate about the broader legitimacy of particular rationalities and techniques of rule.

A progressive praxis would attempt to come to terms with this dialectical tension; it would foreground the constitutive relationship between institutionalized approaches to participation and insurgent responses. It would also understand that subversion or outright rejection of participatory tools is a window into the historically specific socio-cultural and political-economic structures in which both participants and development experts are implicated. It is in this spirit that this dissertation tried to shed light on how and why peripheral residents ultimately do “participate” in market-oriented water projects by leveraging the discourses and mechanisms therein to stake claim to urban space. This study dwelled, in other words, on how the contours of financialized and insurgent participation inflect each other.

The kind of praxis that I imagine would be flexible enough to incorporate these ongoing insights into related areas of development practice. It would be responsive to the ways in which technocratic notions of participation are appropriated and put to other uses. To give an example, if the policy of cash contributions to water infrastructure invariably raises the question about land tenure for peripheral urban dwellers, then serious engagement between water and planning practitioners, neighborhood associations and other grassroots constituencies, and elected representatives on the meanings of payment is called for. Participatory deliberation on these various meanings and their material implications may, in turn, encourage feasible revisions to pricing policies.

Crucially, such deliberation should not be made free of agonism and contestation. It is often conflict and antagonism—rather than reciprocity and harmony—that mark the conditions of possibility (and impossibility) for creative and transformative praxis. Instead of underplaying differences in opinion, identity, and value systems through consensus-building measures, instead of assuming that there is only one common goal to which all participants must aspire, agonistic democratic forums suggest the importance of plurality. This is not a new perspective; indeed social and political theorists have long insisted on the need for agonistic spaces where heterogeneous viewpoints are continuously debated. They warn moreover that differences might be so irreducible that consensus may never be reached—nor should the goal necessarily be to promote consensus. But what would such spaces look like in practice in a city like Bangalore and what might they achieve?

I find hope in the idea of “struggle committees”, a term I heard during my interactions with the trade union-affiliated civic platform in Bommanahalli as described in Chapter 3. DYFI organizer Laxman Kumar spoke of struggle committees in the context of collective organizing over specific problem areas, such as flooding, drinking water, or ration cards, at the peripheries. For me the notion of “struggle committees” is somewhat of an oxymoron, symbolic perhaps of the broader dialectics of participation. It simultaneously implies unison and a collective purpose, as well as discord and disagreement. What if struggle committees in Bangalore consisted not only of neighborhood associations and subaltern groups fighting particular localized battles, but also citywide initiatives that brought together agents that struggle with *each other*? In other words, struggle committees would necessarily draw together those with oppositional worldviews: social activists and technocrats; politicians and bureaucrats; different non-governmental camps that do not see eye to eye. The purpose would expressly *not* be to reach a so-called middle ground, but rather—and to bring back Donna Haraway—it would be for participants to commit to a praxis of “mobile positioning”, to recognize that all knowledge and experiences are situated, and to assess one’s own convictions self-critically. Such struggle committees would themselves be multi-sited and nomadic, sometimes coalescing in boardrooms and offices, and at other times, in the neighborhoods and streets where development schemes are meant to come to fruition. This multi-sitedness would also reverse the perceived one-way directionality of expert schemes as always emanating from certain sites of decision-making and taking root in others. I see struggle committees not simply serving as a means to an end, but as on-going sites of dissent—indeed, the very embodiment of a pluralist democratic politics. Such a possibility is just one of many that arises when participation is re-envisioned as a dialectical and often antagonistic process.

7.3. Concluding Thoughts: Whose City is Bangalore?

When I returned to Bangalore for a few months of fieldwork in 2009, I had the opportunity to attend a photograph exhibition titled “Destructive Creation”, a collection of over 160 portraits of the city. The photographs, taken by Esha, a talented young fellowship recipient of the anti-poverty NGO Action Aid India, were timely and deeply stirring. They told a sad story: that of “people giving way for a new Bangalore”; of road widening and flyover projects demolishing homes; of trees disappearing amidst a concrete jungle; of massive unaccounted for expenditures on high-end infrastructure in the face of inadequate drinking water for the most

marginalized. The written commentary that accompanied the images decried the shameless worlding of the city, and warned that people, even the middle class, were losing control of their lives as new globalized imaginations were colonizing space and stifling alternatives. If there was something that made me a bit uneasy about this type of narrative—a sense of inevitability or closure, perhaps—there was also an opening provided by what I felt to be the most important question posed at the exhibition: whose city is Bangalore?

This dissertation was an attempt to keep that question alive, and to stress the criticality of keeping that question alive. The Bangalore of today belongs no more to the global entrepreneurs and pro-market reformists than it belongs to vernacular movements and the “struggle committees” of peripheralized agents. Water is a particularly crucial lens into how these various groups envision their city and stake their claims on it. While the specifics of these competing imaginations and the spatial politics of water might be unique to Bangalore and its history, a range of scholars would recognize that the phenomena delineated here are characteristic of a great many urban futures. An increasing number of cities are not only concentrating populations on the peri-urban frontiers, but are also experimenting with market-led rationalities in governing their commons, while always contending with previous institutional and political legacies. There is a need to take stock of these emergent processes—those marked by both rupture and continuity—and decipher the relations of power that infuse them. Much like water’s physical properties—its miscibility, its ability to change forms, its tendency to flow across boundaries—the ways in which power relations are lived are always in flux, always symptomatic of a very fluid hegemony.

References Cited

- Abu-Lughod, Janet. 1965. "Tale of Two Cities: The Origins of Modern Cairo." *Comparative Studies in Society and History* 7: 4, 429-457.
- ADB. 2003. "Final Report on Enhancing Municipal Service Delivery Capability." Asian Development Bank, Manila.
- . 2005. "Aide Memoire (2nd Version), Karnataka Urban Infrastructure Development Project (Loans 1415-IND and 1416-IND)." Asian Development Bank, Manila.
- . 2006. "Review of the Implementation of ADB's Governance and Anti-Corruption Policies." Asian Development Bank, Manila.
- ALF. 2003. "Of Master Plans and Illegalities in an Era of Transition." Alternative Law Forum, Bangalore.
- Allen, A, J Davila, and P Hofman. 2006a. "Governance of Water and Sanitation for the Peri-urban Poor: A Framework for Understanding and Action in Metropolitan Regions." Development Planning Unit, University College, London.
- Allen, A, J Davila, and P Hofmann. 2006b. "The peri-urban water poor: citizens or consumers?" *Environment & Urbanization* 18: 2, 333-351.
- AlSayyad, Nezar. 1992. "Forms of Dominance: On the Architecture and Urbanism of the Colonial Enterprise." Aldershot and Vermont: Ashgate Publishing.
- AlSayyad, Nezar and Ananya Roy. 2004. "Urban Informality: Transnational Perspectives from the Middle East, Latin America, and South Asia." Maryland: Lexington Press.
- Amin, Ash and Stephen Graham. 1997. "The Ordinary City." *Transactions of the Institute of British Geographers* 22: 4, 411-429.
- Anand, Mukesh, Amaresh Bagchi, and Tapas K. Sen. 2001. "Fiscal Discipline at the State Level: Perverse Incentives and Paths to Reform." in *Proceedings of the World Bank-NIPFP Seminar* New Delhi.
- Anjaria, Jonathan. 2006. "Street Hawkers and Public Space in Mumbai." *Economic and Political Weekly* 41: 21, 2140-2146.
- Appadurai, Arjun. 1993. "Number in the Colonial Imagination." in *Orientalism and the Post-Colonial Predicament: Perspectives on South Asia*, edited by Carol A Breckenridge and Peter van der Veer. Philadelphia: University of Pennsylvania Press.
- Arabindoo, Pushpa. 2009. "Falling Apart at the Margins? Neighbourhood Transformations in Peri-Urban Chennai." *Development and Change* 40: 5, 879-901.
- Audirac, I. 2003. "Information Age Landscapes Outside the Developed World: Bangalore, India and Guadalajara, Mexico." *American Planning Association Journal* 69: 1, 16-32.
- Aziz, Abdul, Charles Nelson, and Devendra Babu. 1996. "Power to the People: the Karnataka Experiment." in *Decentralised Governance in Asian Countries*, edited by Abdul Aziz and David Arnold. New Delhi: Sage
- Bagchi, Amaresh. 2003. "Rethinking Federalism: Changing Power Relations Between the Center and the States." *Publius: The Journal of Federalism* 33: 4.
- Bagchi, Soumen. 2001. "Financing Capital Investments in Urban Infrastructure: Constraints in Accessing Capital Market by Urban Local Bodies." *Economic and Political Weekly* 36: 4, 385-398.

- Bagchi, Soumen and Anirban Kundu. 2003. "Development of Municipal Bond Market in India: Issues concerning Financing of Urban Infrastructure." *Economic and Political Weekly* 38: 8, 789-98.
- Baindur, Vinay and Lalitha Kamath. 2009. "Reengineering Urban Infrastructure: How the World Bank and Asian Development Bank Shape Urban Infrastructure Finance and Governance in India." Bank Information Centre South Asia.
- Bakker, Karen. 2003. "Archipelagos and networks: urbanization and water privatization in the South." *The Geographic Journal* 169: 4, 328-341.
- . 2005. "Neoliberalizing Nature? Market Environmentalism in Water Supply in England & Wales." *Annals of the Association of American Geographers* 95: 3.
- . 2008. "The Ambiguity of Community: Debating Alternatives to Private-Sector Provision of Urban Water Supply." *Water Alternatives* 1: 2, 236-252.
- Bardhan, Pranab. 1998. *The Political Economy of Development in India*. London Oxford University Press.
- Barry, Andrew, Thomas Osborne, and Nikolas Rose. 1993. "Liberalism, neoliberalism, and governmentality: an introduction." *Economy and Society* 22: 265-6.
- . 1996. "Introduction." in *Foucault and Political Reason: Liberalism, neoliberalism, and rationalities of government*, edited by Andrew Barry, Thomas Osborne, and Nikolas Rose. Chicago: University of Chicago Press.
- Batley, Richard 1989. "Management of Urban Fringe Land in Bangalore." in *The Management of Indian Urban Development*. Birmingham: University of Birmingham.
- Baviskar, Amita. 2002. "The Politics of the City." *Seminar* 516.
- Bayat, Asef. 2007. "From 'Dangerous Classes' to 'Quiet Rebels': Politics of the Urban Subaltern in the Global South." in *Urban communication: production, text, context*, edited by Timothy A. Gibson and Mark Douglas Lowes. Plymouth: Rowman & Littlefield Publishers.
- Bebbington, Anthony. 2010. "Trusteeship, Ethnography, and the Challenge of Critique in/of Development." *Annals of the Association of American Geographers* 100: 1, 229-232.
- Benjamin, Solomon. 2000. "Governance, economic settings and poverty in Bangalore." *Environment & Urbanization* 12: 1, 35-56.
- . 2004. "Urban Land Transformation for Pro-Poor Economies." *Geoforum* 35: 177-187.
- . 2008. "Occupancy Urbanism: Radicalizing Politics and Economy beyond Policy and Programs." *International Journal of Urban and Regional Research* 32: 3, 719-29.
- Benjamin, Solomon and R Bhuvaneshwari. 2001. "Democracy, Inclusive Governance, and Poverty in Bangalore " Pp. 250 in *Working Paper #26*. Birmingham: University of Birmingham.
- Benjamin, Solomon and R Bhuvaneshwari. 2006. "Urban Futures of Poor Groups in Chennai and Bangalore: How these are Shaped by the Relationships between Parastatals and Local Bodies." in *Local Governance in India: Decentralization and Beyond*, edited by NG Jayal, A Prakash, and P Sharma. New Delhi: Oxford University Press.
- Beteille, Andre. 1989. "Are the Intelligentsia a Ruling Class?" *Economic and Political Weekly* 24: 3, 151-155.
- Bevir, Mark. 1999. "Foucault, Power, and Institutions." *Political Studies* XLVII: 345-359.
- Bhaduri, A and A Khejriwal. 2005. "Urban Water Supply: Reforming the Reformers." *Economic and Political Weekly*: 5543-5545.

- Blomley, Nicholas. 2004. *Unsettling the City: Urban Land and the Politics of Poverty*. New York: Routledge.
- Brenner, Neil. 2004. *New State Spaces: Urban Governance and the Rescaling of Statehood*. Oxford: Oxford University Press.
- Brenner, Neil and Nik Theodore. 2002. "Cities and the Geographies of "Actually Existing Neoliberalism"." *Antipode* 34: 3.
- Burawoy, M. 2000. "Introduction: Reaching for the Global." in *Global Ethnography: forces, connections, and imaginations in a postmodern world*, edited by M Burawoy, J Blum, S George, Z Gille, T Gowan, L Haney, M Klawanter, S Lopez, S Riain, and M Thayer. Berkeley and Los Angeles: University of California Press.
- Burawoy, Michael. 1998. "The Extended Case Method." *Sociological Theory* 16.
- BWSSB. 2006. "Letter from the Chairman dated February 2: Regarding Private Sector Participation in Operation and Maintenance of Water Supply and Sewerage (UGD) system in all 8 ULBs located around Bangalore City."
- CAF. nd. "Sakrama Booklet for a New, Equitable Law." Bangalore: Citizens Action Forum.
- Caldeira, T. 2000. *City of Walls: Crime, Segregation and Citizenship in Sao Paulo*. Berkeley: University of California.
- Callon, Michel. 1986. "Some elements of a sociology of translation: domestication of the scallops and the fishermen of St Brieuc Bay." in *Power, action and belief: a new sociology of knowledge?*, edited by J Law. London: Routledge.
- Carney, Scott 2008. "The Godfather of Bangalore." *Wired Magazine*, October 20.
- Castells, Manuel. 1996. *The Rise of the Network Society, Vol. 1, The information age: Economy, Society, and Culture*. Cambridge: Blackwell.
- CASUMM. 2006. "Government of Karnataka's Greater Bangalore Water Supply and Sanitation Project (GBWASP)." Collaborative for the Advancement of the Study of Urbanism through Mixed Media, Bangalore.
- . nd. "Community Participation Law (CPL): What Participation? Whose Community?", edited by "Collaborative for the Advancement of the Study of Urbanism through Mixed Media". Bangalore.
- CAWP-K. 2006. "7-day padh yatra against water-privatisation begins in Bangalore." *Press release*.
- Census of India. 2001. "Census of India." edited by Government of India. New Delhi.
- Chakrabarty, Dipesh. 2002. *Habitations of Modernity: Essays in the Wake of Subaltern Studies*. Chicago: University of Chicago Press.
- Chamaraj, Kathyayini and Prasanna Rao. 2006. "Functioning of Ward Committees in Bangalore: A Case Study." in *People's Participation in Urban Governance*, edited by KC Sivaramakrishnan. New Delhi: Concept Publishing.
- Chandarvakar, Rajnarayanan. 1998. *Imperial power and popular politics: Class, resistance and the state in India, c.1850-1950*. Cambridge: Oxford University Press.
- Chatterjee, Partha. 2001. "On civil and political society in post-colonial democracies." in *Civil society: history and possibilities*, edited by S Kaviraj and S Khilnani. Cambridge: Cambridge University Press.
- . 2004. *The Politics of the Governed: Reflections on Popular Politics in Most of the World*. New York: Columbia University Press.
- Christophers, Brett. 2007. "Enframing creativity: power, geographical knowledges and the media economy." *Transactions of the Institute of British Geographers* 32: 235-247.

- CMAK. 2006. "Public Grievance Redressal System: Draft Report." City Managers Association of Karnataka, Bangalore.
- . 2009. "Public Grievance Redressal System: Evaluation report for phase II." City Managers Association of Karnataka, Bangalore.
- Coelho, K. 2005. "Unstating the Public: An Ethnography of Reform in a South Indian Utility." in *The Aid Effect: Giving and Governing In International Development* edited by D Mosse and D Lewis. London and Ann Arbor: Pluto Press.
- Coelho, K and Venkat. 2009. "The Politics of Civil Society: Neighbourhood Associationism in Chennai." *Economic and Political Weekly* XLIV: 26 & 27, 358-367.
- Cohn, Bernard. 1987. *An anthropologist among the historians and other essays*. Delhi and New York: Oxford University Press.
- Comaroff, Jean and John Comaroff. 1989. "The Colonization of Consciousness in South Africa." *Economy and Society* 18: 3, 167-196.
- Corbridge, S, G Williams, M Srivastava, and R Veron. 2005. *Seeing the State: Governance and Governmentality in India*. Cambridge: Cambridge University Press.
- Corbridge, Stuart and John Harriss. 2000. *Reinventing India*. Cambridge: Blackwell Press
- Coutard, Olivier. 2008. "Placing splintering urbanism: Introduction." *Geoforum* 39: 6, 1815-1820.
- Crehan, Kate. 2002. *Gramsci, Culture and Anthropology*. London: Pluto Press.
- Crook, Richard and James Manor. 1998. *Democracy and Decentralisation in South Asia and West Africa: Participation, Accountability, and Performance*. Cambridge: Cambridge University Press.
- de Certeau, Michel. 1984. *The Practice of Everyday Life*. Los Angeles and Berkeley: University of California Press.
- Deccan Herald. 1967. "City Cries Halt to Industrial Expansion." July 17.
- . 1968a. "CM will tackle City water problem." February 24.
- . 1968b. "Houses without amenities." March 15.
- . 1968c. "Water: When you want, Where you want with Econ Ejecto Water Pumps." March 15.
- . 2005. "Housing Dreams Shatter, Revenue Hit." in *Deccan Herald*. Bangalore.
- . 2009a. "Akrama-Sakrama fate today." Bangalore.
- . 2009b. "Cheaper Sakrama on cards." Bangalore.
- . 2010. "Water crisis to worsen in the city." Bangalore.
- Demeritt, Richard. 2001. "Scientific forest conservation and the statistical picturing of nature's limits in the Progressive-era United States." *Environment and Planning D* 19: 431-459.
- Desfor, Gene and Lucian Vesalon. 2008. "Urban Expansion and Industrial Nature: A Political Ecology of Toronto's Port Industrial District." *International Journal of Urban and Regional Research* 32: 3, 586-603.
- Deshpande, Satish. 2003. *Contemporary India: A Sociological View*. New Delhi: Viking.
- DMA & CMAK. 2009. "Service Level Benchmarking: a Manual for ULBs." Department of Municipal Administration and the City Manager's Association of Karnataka, Bangalore.
- Doshi, Sapana. Forthcoming. "Imperial Water, Urban Crisis: A Political Ecology of Colonial State Formation in Bombay, 1850-1890." *Review: Journal of the Fernand Braudel Center*.
- Economist 2005. "Democracy's Drawbacks." October 29.

- Ekers, Michael and Alex Loftus. 2008. "The power of water: developing dialogues between Foucault and Gramsci." *Environment and Planning D: Society and Space* 26: 698-718.
- Evans, Peter. 1995. *Embedded Autonomy: States and Industrial Transformation* Princeton: Princeton University Press.
- . 2002. *Livable Cities? Urban Struggles for Livelihood and Sustainability*. Berkeley: University of California Press.
- . 2005. "Harnessing the State: Rebalancing Strategies for Monitoring and Motivation." in *States and development: historical antecedents of stagnation and advance*, edited by Matthew Lange and Dietrich Rueschemeyer. New York: Palgrave Macmillan.
- . 2008. "Is an Alternative Globalization Possible?" *Politics and Society* 36: 271-305.
- Ferguson, J and A Gupta. 2002. "Spatializing the state: toward an ethnography of neoliberal governmentality." *American Ethnologist* 29: 4, 981-1002.
- Ferguson, James. 1990. *The Anti-Politics Machine*. Cambridge: Cambridge University Press.
- Fernandes, Leela. 2004. "The Politics of Forgetting: Urban Space in India Class Politics, State Power and the Restructuring of Urban Space." *Urban Studies* 41: 12, 2415-2430.
- . 2006. *India's New Middle Class: Democratic Politics in an Era of Economic Reforms*. Minneapolis: University of Minnesota Press.
- Fernandes, Leela and Patrick Heller. 2006. "Hegemonic Aspirations." *Critical Asian Studies* 38: 4, 495-522.
- Foucault, M. 1985 [1976] *The History of Sexuality, vol 1: Introduction*. Harmondsworth: Viking
- . 1994. "The Subject and Power." in *The Essential Foucault*, edited by P Rabinow and N Rose. New York: The New Press.
- . 2003 [1978]. "Governmentality." in *The Essential Foucault*, edited by P Rabinow and N Rose. New York: The New Press.
- . 2003 [1979]. "The Birth of Biopolitics." in *The Essential Foucault: Selections from Essential Works of Foucault, 1954-1984*, edited by Paul Rabinow and Nikolas Rose. New York: The New Press.
- Friedman, Thomas. 2005. *The World is Flat*. New York: Farrar, Strauss & Giroux.
- Fuller, CJ and John Harriss. 2000. "For an anthropology of the modern Indian State." in *The Everyday State and Society in Modern India*, edited by CJ Fuller and Veronique Benei. New Delhi: Social Science Press.
- Fuller, CJ and Haripriya Narasimhan. 2007. "Information Technology Professionals and the New-Rich Middle Class in Chennai." *Modern Asian Studies* 41: 1.
- Gandy, Matthew. 1997. "The making of a regulatory crisis: restructuring New York City's water supply." *Transactions of the Institute of British Geographers* 22: 338-358.
- . 2002. *Concrete and Clay: Reworking Nature in New York City*. Cambridge: MIT Press.
- Ghertner, Asher. 2010. "Rule by Aesthetics: World-class city making in Delhi." PhD Dissertation in the Energy and Resources Group, University of California, Berkeley.
- Ghosh, Asha. 2005. "Public-Private or a Private Public? Promised Partnership of the Bangalore Agenda Task Force." *Economic and Political Weekly* 40: 47, 4914-4922.
- Ghosh, Jayati. 1998. "Development Strategy in India: A Political Economy Perspective." in *Nationalism, Democracy & Development*, edited by Sugata Bose and Ayesha Jalal. Delhi: Oxford University Press.
- GoK. 1992. "Karnataka Regularisation of Unauthorised Constructions in Urban Areas Act, 1991." edited by Housing & Urban Development Department. Bangalore.
- . 1995. "The Karnataka Land Reforms Act, 1961: Amending Act No. 31 of 1995." Bangalore.

- . 2001. "Medium-Term Fiscal Plan for Karnataka, 2001-2006." edited by Finance. Bangalore: Government of Karnataka.
- . 2003a. "Implementation of Water Supply and Sewerage Project for 7 City Municipal Councils and 1 Town Municipal council in Bangalore Metropolitan Area with Pooled Finance Framework - Collection of Capital Contribution from Users." edited by Urban Development Department.
- . 2003b. "Urban Drinking Water and Sanitation Policy Statement of the Government of Karnataka."
- . 2004a. "Proceedings of the First Meeting of the Karnataka Water and Sanitation Pooled Fund Trust Held on Friday the 16th January, 2004 at 11:00AM in the Chambers of Additional Chief Secretary and Principal Secretary, Finance Department, Vidhana Soudha, Bangalore."
- . 2004b. "Proceedings of the First Meeting of the Project Steering Committee on GBWASP Held on Wednesday the 28th January, 2004 at 11:00AM in the Office of the CMC, Bommanahalli."
- . 2005a. "Greater Bangalore Water and Sanitation Project: Frequently Asked Questions, dated May 5, 2005." Bangalore: Urban Development Department.
- . 2005b. *Karnataka Human Development Report*. Bangalore: Government of Karnataka.
- . 2005c. "Medium-Term Fiscal Plan for Karnataka, 2005-2009." edited by Finance Department. Bangalore: Government of Karnataka.
- . 2005d. "Proceedings of the Government of Karnataka: Implementation of Water Supply Project in 7 City Municipal Councils and 1 Town Municipal Council in Bangalore Metropolitan Area with Pooled Finance Framework - Collection of Beneficiary Capital Contributions from Users, dated February 28, 2005."
- . 2006. "Initiatives from Urban Sector of Karnataka State." Urban Development Department, Government of Karnataka, Bangalore
- . nd. "Initiatives from Urban Sector of Karnataka State." Urban Development Department, Government of Karnataka, Bangalore
- Goldman, Michael. 2005. *Imperial Nature: the World Bank and Struggles for Social Justice in the Age of Globalization*. Hyderabad: Orient-Longman.
- . 2007. "How "Water for All!" policy became hegemonic: The power of the World Bank and its transnational policy networks." *Geoforum* 38: 786-800.
- Gordon, Colin. 1991. "Governmental rationality: an introduction." in *The Foucault Effect: Studies in Governmentality with Two Lectures and an Interview with Michel Foucault*, edited by Graham Burchell, Colin Gordon, and Peter Miller. Chicago: The University of Chicago Press.
- Government of Mysore. 1954. "Report of the Bangalore Development Committee." Bangalore.
- Graham, Stephen and Simon Marvin. 2001. *Splintering Urbanism: Networked Infrastructures, Technological Mobilities and the Urban Condition*. London: Routledge.
- Gramsci, Antonio. 2000 [1971]. *The Antonio Gramsci Reader: Selected Writings 1916-1935*, Edited by David Forgacs. New York: New York University Press.
- Grossberg, Lawrence and Stuart Hall. 1986. "On Postmodernism and Articulation: An Interview with Stuart Hall." *Journal of Communication Inquiry* 10: 45-60.
- Gupta, Akhil. 2005. "Narratives of corruption: Anthropological and fictional accounts of the Indian State." *Ethnography* 6: 1, 5-34.

- . 2006 [1995] "Blurred Boundaries: The Discourse of Corruption, the Culture of Politics, and the Imagined State." in *The anthropology of the state: a reader*, edited by Aradhana Sharma and Akhil Gupta. Malden: Blackwell
- GWJ. 2008. "Indian utilities eye alternative funding sources." *Global Water Intelligence* 9: 12.
- Hackworth, Jason. 2002. "Local Autonomy, Bond-Rating Agencies and Neoliberal Urbanism in the United States." *International Journal of Urb and Reg Research* 26: 4, 707-725.
- . 2007. *The Neoliberal City: Governance, Ideology, and Development in American Urbanism*. Ithaca: Cornell University.
- Halarankar, Samar. 2004a. "Bangalore Crumbling, Part I: A series on the rot: what, why, how and who." in *Indian Express*. Bangalore.
- . 2004b. "Bangalore Crumbling, Part II: A series on the rot: what, why, how and who." in *Indian Express*. Bangalore.
- Hall, D and E Lobina. 2004. "Private and public interests in water and energy." *Natural Resources Forum* 28: 268-277.
- Hall, Stuart. 1987. "Gramsci and Us." *Marxism Today* June: 16-21.
- Hansen, Thomas Blom and Finn Stepputat. 2001. "States of Imagination: Ethnographic Explorations of the Postcolonial State." Durham and London: Duke University Press.
- Hansen, Thomas Blom and Oskar Verkaaik. 2009. "Introduction Urban Charisma: On Everyday Mythologies in the City." *Critique of Anthropology* 29: 1, 5-26.
- Haraway, Donna. 1988. "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective." *Feminist Studies* 14: 3, 575-599.
- Harris, Richard. 2009. "Housing Policy for the Colonial City: The British and Dutch Experience Compared, 1901-1949." *Urban Geography* 30: 8, 815-37.
- Harriss, John. 2005. "Politics is a 'dirty river', but is there a new politics of civil society? Perspectives from global cities of India and Latin America." LSE Research Online, London.
- . 2007. "Antinomies of Empowerment: Observations on Civil Society, Politics, and Urban Governance in India." *Economic and Political Weekly* 42: 26, 2716-2724.
- Hart, Gillian. 2001. "Development critiques in the 1990s: culs de sac and promising paths." *Progress in Human Geography* 25: 4, 649-658.
- . 2004. "Geography and development: critical ethnographies." *Progress in Human Geography* 28: 1, 91-100.
- . 2007. "Changing concepts of articulation: political stakes in South Africa today." *Review of African Political Economy* 34: 85-101.
- Harvey, D. 1978. "The Urban Process Under Capitalism: A Framework for Analysis." *International Journal of Urban and Regional Research* 2: 1, 101-31.
- . 1996. *Justice, Nature, and the Geography of Difference*. Malden: Blackwell.
- . 2003. *The New Imperialism*. Oxford: Oxford University Press.
- . 2005. *A Brief History of Neoliberalism*. Oxford: Oxford University Press.
- Harvey, David. 1989. "From Managerialism to Entrepreneurialism: The Transformation in Urban Governance in Late Capitalism." *Geographiska Annaler. Series B, Human Geography* 17: 1, 3-12.
- Hasan, Arif. 2008. "Financing the sanitation programme of the Orangi Pilot Project Research and Training Institute in Pakistan." *Environment and Urbanization* 20: 1, 109-119.
- Hasan, M Fazlul. 1970. *Bangalore Through the Centuries: A Historical Narrative of Bangalore*. Mysore: Wesley Press.

- Hazareesingh, S. 2001. "Colonial modernism and the flawed paradigms of urban renewal: uneven development in Bombay, 1900-25." *Urban History* 28: 2, 235-255.
- Heitzman, James. 2004. *Network City: Planning the Information Society in Bangalore*. New Delhi: Oxford University Press.
- . 2008. *The City in South Asia*. London and New York: Routledge.
- Herzfield, Michael. 1992. *The social production of indifference: exploring the symbolic roots of Western bureaucracy*. London: University of Chicago Press.
- Heynen, Nik, Maria Kaika, and Eric Swyngedouw. 2006. "Urban political ecology: Politicizing the production of urban natures." in *In the Nature of Cities: Urban Political Ecology and the Politics of Urban Metabolism*, edited by Nik Heynen, Maria Kaika, and Eric Swyngedouw. New York: Routledge.
- Hindess, B. 1997. "A Society Governed by Contract?" in *The New Contractualism*, edited by Glyn Davis, Barbara Sullivan, and Anna Yeatman. Melbourne: Macmillian.
- Holston, J. 2008. *Insurgent Citizenship: Disjunctions of Democracy and Modernity in Brazil*. Princeton: Princeton University Press.
- Holston, J. 1999. "Spaces of Insurgent Citizenship." in *Cities and Citizenship*, edited by J Holston. Durham: Duke University Press.
- Home, R. 1997. *Of Planting and Planning: The Making of British Colonial Cities*. London: E&FN Spon.
- IFC. 2005. "The Bangalore Water Supply and Sewerage Public Private Partnership: GBWASP for 8 ULBs." International Finance Corporation, the World Bank, Washington DC.
- Jacob, Samuel. 2007. "Sakrama throws up more questions than answers." in *Citizen Matters*. Bangalore.
- . 2008. "Citizens' verdict: keep Sakrama in abeyance." in *Citizen Matters*. Bangalore.
- Jacobs, Jane M. 1996. *Edge of Empire: Post-Colonialism and the City* London and New York: Routledge.
- Jaglin, S. 2003. "The right to water versus cost recovery: participation, urban water supply and the poor in sub-Saharan Africa." *Environment & Urbanization* 14: 1.
- Jamwal, N. 2006. "Urban Non-Politics in Bangalore." *Down To Earth*, February 15.
- Janaagraha. 2005. "Participatory Local Area Capital Expenditure (contract between WSP and Janaagraha)."
- Jayal, NG, A Prakash, and P Sharma. 2006. "Local Governance in India: Decentralization and Beyond." New Delhi: Oxford University Press.
- Jenkins, Rob. 1999. *Democratic Politics and Economic Reforms in India*.
- Jessop, B. 1990. *State Theory: Putting the Capitalist State in its Place*. Cambridge: Polity Press.
- Joyce, Patrick. 2003. *The Rule of Freedom: Liberalism and the Modern City*. London and New York: Verso.
- Kamath, Lalitha. 2006. "Achieving Global Competitiveness and Local Poverty Reduction? Examining the Public Private Partnering Model of Governance in Bangalore, India." PhD Dissertation in the Urban Planning and Policy Development, Rutgers, The State University of New Jersey, New Brunswick.
- Kamath, Lalitha, Vinay Baindur, and P Rajan. 2008. "Urban Local Government, Infrastructure Planning and the Urban Poor." CASUMM/CIVIC, Bangalore.
- Kamath, Lalitha and M Vijayabaskar. 2009. "Limits and Possibilities of Middle Class Associations as Urban Collective Actors." *Economic and Political Weekly* XLIV: 26 & 27, 368-376.

- Kaushala, S. 2008. "The UNHOLY trinity: Irregular water supply, bad roads and choked drains bother Bangaloreans." in *Times of India*. Bangalore.
- Kaviraj, S. 1984. "On the crisis of political institutions in India." *Contributions to Indian Sociology* 18: 223-43.
- . 2000. "Modernity and Politics in India." *Daedulus* 129: 1, 137-162.
- Keil, R. 2003. "Urban Political Ecology Progress Report." *Urban Geography* 24: 8, 723-738.
- Keivani, Ramin and Michael Mattingly. 2007. "The Interface of Globalization and Peripheral Land in the Cities of the South: Implications for Urban Governance and Local Economic Development." *IJURR* 31: 2, 459-474.
- Kessides, Ioannis. 2004. "Reforming Infrastructure Privatization, Regulation, and Competition." World Bank, Washington DC.
- Khilnani, Sunil. 1999. *The Idea of India*. New York: Farrar, Straus and Giroux.
- Kidambi, Prashant. 2001. "Housing the Poor in a Colonial City: The Bombay Improvement Trust, 1898-1918." *Studies in History* 17: 1, 57-79.
- . 2004. "'An infection of locality': plague, pythogenesis and the poor in Bombay, c. 1896–1905." *Urban History* 31: 2, 249-267.
- King, Anthony. 1990. *Urbanism, Colonialism, and the World-Economy: Cultural and Spatial Foundations of the World Urban System*. London and New York Routledge.
- Kirk, Jason. 2010. *India and The World Bank: The Politics of Aid and Influence*. London and New York: Anthem Press.
- Kohli, Atul. 1984. "Regime Types and Poverty Reform in India." *Pacific Affairs* 56: 4.
- . 2004. *State-Directed Development: Political Power and Industrialization in the Global Periphery*. New York: Cambridge University Press.
- Kooy, Michelle and Karen Bakker. 2008a. "Splintered networks: the colonial and contemporary waters of Jakarta." *Geoforum* 39: 8.
- . 2008b. "Technologies of Government: Constituting Subjectivities, Spaces, and Infrastructures in Colonial and Contemporary Jakarta." *IJURR* 32: 2, 375-91.
- KUIDFC. 2004. "Status of Urban Infrastructure In Karnataka." KN Urban Infrastructure Development Finance Corporation, Bangalore.
- . 2006. "12th Annual Report 2005-06." Karnataka Urban Infrastructure Development & Finance Corporation, Bangalore.
- . 2007. "Status of Urban Infrastructure In Karnataka." KN Urban Infrastructure Development Finance Corporation, Bangalore.
- Kumar, Pradeep. 2006. "Wake-up call for Bangalore." in *Deccan Herald*. Bangalore.
- Kumar, Revathi Siva. 2007. "What do you think of the BDA?" in *Citizen Matters*. Bangalore.
- . 2008a. "Water supply from the bottom up." *Citizen Matters* 23 July.
- . 2008b. "Water supply from the bottom up." in *Citizen Matters*. Bangalore.
- Kumar, Sunil. 2001. "Social Relations, Rental Housing Markets, and the Poor in Urban India." London School of Economics & Political Science, London.
- Kundu, Amitabh. 2002. "Politics and Economics of Credit Rating." *Economic and Political Weekly* 36: 4, 293-95.
- . 2003. "Urbanisation and Urban Governance Search for a Perspective beyond Neo-Liberalism." *Economic and Political Weekly*: 3079-3087.
- . 2004. "Infrastructure Financing and Emerging Pattern of Urbanisation: Vision 2020." in *India Vision 2020: The Report of the Committee on India Vision 2020 by Planning*

- Commission, Government of India*, edited by SP Gupta. New Delhi: Academic Foundation.
- Larner, W. 2003. "Neoliberalism? Guest Editorial." *Environment and Planning D: Society and Space* 21: 509-512.
- Larner, Wendy. 2000. "Neo-liberalism: Policy, Ideology, Governmentality." *Studies in Political Economy* 63: 5-25.
- Larner, Wendy and Wendy Butler. 2007. "The Places, People, and Politics of Partnership: "After-Neoliberalism" in Aetearoa, New Zealand." in *Contesting Neoliberalism: Urban Frontiers*. New York: Guilford Publications.
- Larner, Wendy and Richard Le Heron. 2004. "Global benchmarking: Participating 'at a distance' in the globalizing economy." in *Global governmentality: governing international space*, edited by Wendy Larner and Williams Walters. London: Routledge.
- Latour, Bruno. 1987. *Science in action: how to follow scientists and engineers through society*. Cambridge: Harvard University Press.
- Legg, Stephen. 2005. "Foucault's Population Geographies: Classifications, Biopolitics and Governmental Spaces." *Population, Space and Place* 11: 137-156.
- . 2007. *Spaces of Colonialism: Delhi's Urban Governmentalities*. Malden: Blackwell Publishing.
- Leitner, Helga, Jamie Peck, and Eric S Sheppard. 2007. "Squaring up to Neoliberalism." in *Contesting Neoliberalism: Urban Frontiers*, edited by Helga Leitner, Jamie Peck, and Eric S Sheppard. New York: The Guilford Press.
- Lemke, Thomas. 2001. "The Birth of "Bio-Politics": Michel Foucault's Lecture at the College de France on Neo-Liberal Governmentality." *Economy & Society* 30: 190-207.
- Li, Tania Murray. 1999. "Compromising Power: Development, Culture, and Rule in Indonesia." *Cultural Anthropology* 14: 3, 295-322.
- . 2007. *The Will to Improve: Governmentality, Development, and the Practice of Politics*. Durham: Duke University Press.
- Loftus, A and F Lumsden. 2008. "Reworking hegemony in the urban waterscape." *Transactions of the Institute of British Geographers* 33: 109-126.
- Loftus, A and D McDonald. 2001. "Of liquid dreams: a political ecology of water privatization in Buenos Aires." *Environment & Urbanization* 13: 2, 179-199.
- Loftus, Alex. 2006. "The metabolic processes of capital accumulation in Durban's waterscape." in *In the Nature of Cities: Urban Political Ecology and the Politics of Urban Metabolism*, edited by Nik Heynen, Maria Kaika, and Eric Swyngedouw. New York: Routledge.
- Ludden, David. 1993. "Orientalist Empiricism: Transformations of Colonial Knowledge." in *Orientalism and the Post-Colonial Predicament: Perspectives on South Asia*, edited by Carol A Breckenridge and Peter van der Veer. Philadelphia: University of Pennsylvania Press.
- MacKinnon, Danny. 2000. "Managerialism, governmentality and the state: a neo-Foucauldian approach to local economic governance." *Political Geography* 19: 293-314.
- Madon, S. 1997. "Information-Based Global Economy and Socioeconomic Development: The Case of Bangalore." *The Information Society* 13: 227-243.
- Madon, S and S Sahay. 2000. "Democracy and Information: A Case Study of New Local Governance Structures in Bangalore." *Information, Communication & Society* 3: 2, 173-191.

- Mahadevia, D. 2003. *Globalization, Urban Reforms, and Metropolitan Response: India*. New Delhi: Manak Publications
- Mahadevia, Darshini. 2002. "Communal Space over Life Space: Saga of Increasing Vulnerability in Ahmedabad." *Economic and Political Weekly* 37: 48, 4850-4858.
- Mamdani, Mahmood. 1996. *Citizen and Subject: Contemporary Africa and the Legacy of Late Colonialism*. Princeton: Princeton University Press.
- Mani, Devyani. 2001. "Comparing Parastatal and Local Government Service Delivery in Emerging Indian Metropolises." in *New Regional Development Paradigms: Decentralization, Governance, and the New Planning for Local-Level Development*, edited by Walter Stohr, Josefa Edralin, and Devyani Mani: Greenwood.
- Manor, James. 1989. "Karnataka: Caste, Class, Dominance and Politics." in *Dominance and State Power in Modern India: Decline of a Social Order (Volumes I and II)*, edited by F Frankel and MSA Rao. Delhi: Oxford University Press.
- . 1997. "The Political Economy of Decentralization." World Bank.
- . 2007. "Change in Karnataka over the Last Generation: Villages and the Wider Context." *Economic and Political Weekly*: February 24, 653-660.
- Marcus, George E. 1995. "Ethnography in/of the World System: The Emergence of Multi-Sited Ethnography." *Annual Review of Anthropology* 24: 95-117.
- Marshall, TH. 1950, 1983. "Citizenship and Social Class." in *States and Society*, edited by David Held. New York: New York University Press.
- Martin, Randy. 2002. *The Financialization of Daily Life*. Philadelphia: Temple University Press.
- Massey, Doreen. 2005. *For Space*. London: Sage.
- Mathur, Om Prakash. 2006. "Urban Finance." in *India Infrastructure Report*, edited by Ministry of Finance.
- Mawdsley, Emma. 2009. "'Environmentalism' in the Neoliberal City: Attitudes, Governance and Social Justice." in *The New Middle Classes: Globalizing Lifestyles, Consumerism and Environmental Concern*, edited by Helmuth Lange and Lars Meier. London and New York: Springer.
- Mayer, Arno. 1975. "The Lower Middle Class as Historical Problem." *The Journal of Modern History* 47: 3, 419-436.
- Mbiba, B and M Huchzermeyer. 2002. "Contentious development: peri-urban studies in sub-Saharan Africa." *Progress in Development Studies* 2002: 2, 113-131.
- McDonald, David and John Pape. 2002. *Cost Recovery and the Crisis of Service Delivery in South Africa*. Cape Town: Human Sciences Research Council.
- McFarlane, C. 2008. "Governing the Contaminated City: Infrastructure and Sanitation in Colonial and Post-Colonial Bombay." *IJURR* 32: 2, 415-35.
- McFarlane, Colin. 2004. "Geographical Imaginations and Spaces of Political Engagement: Examples from the Indian Alliance." *Antipode*: 890-915.
- McGregor, Duncan, David Simon, and Donald Thompson. 2006. "The Peri-Urban Interface: Approaches to Sustainable Natural and Human Resource Use ". London: Earthscan.
- McKenzie, David and Isha Ray. 2009. "Urban Water Supply in India: Status, Reform Options, and Possible Lessons." *Water Policy* 11: 442-460.
- McPhail, A. 1993. "The 'Five Percent Rule' For Improved Water Service: Can Households Afford More?" *World Development* 21: 6, 963-973.
- Menon, Parvathi. 2004. "Loan as Lever." *Frontline* 21: 3, <http://www.hinduonnet.com/fline/fl2123/stories/20041119002004200.htm>.

- Miller, Peter and Nikolas Rose. 2008 [1991]. "Governing Economic Life." Pp. 1-31 in *Governing the Present*, edited by Peter Miller and Nikolas Rose. Cambridge and Malden: Polity Press.
- Miraftab, Faranak. 2009. "Insurgent Planning: Situating Radical Planning in the Global South." *Planning Theory* 8: 32-50.
- Mishra, Vandita. 2005. "'Bangalore crumbling'." in *Indian Express*. Bangalore.
- Mitchell, Katharyne. 2006. "Neoliberal governmentality in the European Union: education, training, and technologies of citizenship." *Environment and Planning D: Society and Space* 24: 389-407.
- Mitchell, Katharyne and Katharine Beckett. 2008. "Securing the Global City: Crime, Consulting, Risk, and Ratings in the Production of Global Cities." *Indiana Journal of Law* 15: 1.
- Mitchell, Timothy. 1991. *Colonising Egypt*. Berkeley and Los Angeles: University of California Press.
- . 2002. *The Rule of Experts: Egypt, Technopolitics, Modernity*. Berkeley and Los Angeles: University of California Press.
- Mohan, G and K Stokke. 2000. "Participatory development and empowerment: the dangers of localism." *Third World Quarterly* 21: 2, 247-268.
- Mohan, Rakesh. 1996. "The India Infrastructure Report: Policy Imperatives for Growth and Welfare." Ministry of Finance, New Delhi.
- Moore, Donald. 1993. "Contesting Terrain in Zimbabwe's Eastern Highlands: Political Ecology, Ethnography and Peasant Resource Struggles." *Economic Geography* 69: 4, 380-401.
- . 1998. "Subaltern Struggles and the Politics of Place: Remapping Resistance in Zimbabwe's Eastern Highlands." *Cultural Anthropology* 13: 3, 344-381.
- . 1999. "The Crucible of Cultural Politics: Reworking "Development" in Zimbabwe's Eastern Highlands." *American Ethnologist* 26: 3, 654-689.
- . 2005. *Suffering for Territory: Race, Place, and Power in Zimbabwe*. Durham and London: Duke University Press.
- Mosse, David. 2005. *Cultivating Development: An Ethnography of Aid Policy and Practice*. New Delhi: Vistaar Publications.
- MoUD. 1992. "Power to the People: The Nagarapalike Act." edited by Ministry of Urban Development. New Delhi.
- Murray, J. 1924. *A handbook for travellers in India, Burma, and Ceylon, 11th edition*. London: John Murray.
- Nair, Janaki. 1996. "Predatory Capitalism and Legalised Landgrab: Karnataka Land Reforms." *Economic and Political Weekly* 31: 5, 251-252.
- . 1998. *Miners and Millhands: Work, Culture and Politics in Princely Mysore*. New Delhi: Sage Publications.
- . 2005. *The Promise of the Metropolis: Bangalore's 20th Century*. New Delhi: Oxford University Press.
- Nandi, Jayashree. 2010. "More Tears Than Water: Core Areas Get Aplenty, While Residents On Outskirts Demand Uniform Supply." in *The Times of India*. Bangalore.
- NIUA. 2004. "Urban Governance Decentralization in India: A Review." National Institute of Urban Affairs, New Delhi.

- . 2005. "Greater Bangalore Water Supply and Sanitation Project: Innovative Financing for Urban Infrastructure." *Urban Finance: A Quarterly Newsletter of the National Institute of Urban Affairs* 8: 2, 1-2.
- O'Malley, Pat, Lorna Weir, and Clifford Shearing. 1997. "Governmentality, criticism, politics." *Economy and Society* 26: 4, 501-517.
- OECD. 2002. *Social Issues in the Provision and Pricing of Water Services*. Paris: Organization for Economic Cooperation and Development.
- . 2010. *Innovative Financing Mechanisms for the Water Sector*. Paris: Organization for Economic Cooperation and Development.
- Ong, Aihwa. 2006. *Neoliberalism as Exception: Mutations in Citizenship and Sovereignty*. Durham: Duke University Press.
- Osborne, Thomas. 1996. "Security and vitality: drains, liberalism and power in the nineteenth century." in *Foucault and Political Reason: Liberalism, neo-liberalism and rationalities of government*, edited by Andrew Barry, Thomas Osborne, and Nikolas Rose. Chicago: University of Chicago Press.
- Pani, Narendar. 1982. "Legislating against Fundamental Change: Land Legislation in Karnataka." *Social Scientist* 10: 8, 45-54.
- . 2009. "Resource cities across phases of globalization: Evidence from Bangalore." *Habitat International* 33: 1, 114-119.
- Pani, Narendar, Tara Anand, and Vinod Vyasulu. 1985. "Impact of Colonialism on the Economic Structure of Indian Cities: 1800-1900." in *Essays on Bangalore, vol. I*, edited by Vinod Vyasulu and Amulya KN Reddy. Bangalore: Karnataka Council for Science and Technology.
- Parthasarthy, B. 2004. "'India's Silicon Valley or Silicon Valley's India? Socially Embedding the Computer Software Industry in Bangalore'" *IJURR* 283.
- Partnoy, Frank. 2002. "The Paradox of Credit Ratings." in *Ratings, Rating Agencies and the Global Financial System*, edited by Richard M. Levich, Giovanni Majnoni, and Carmen M. Reinhart. New York: Springer.
- Peck, J and A Tickell. 2002. "Neoliberalizing space." *Antipode* 34: 3.
- . 2007. "Conceptualizing Neoliberalism, Thinking Thatcherism." in *Contesting Neoliberalism: Urban Frontiers*, edited by Helga Leitner, Jamie Peck, and Eric S Sheppard. New York: The Guilford Press.
- Peck, Jamie, Nik Theodore, and Neil Brenner. 2009. "Postneoliberalism and its mal-contents." *Antipode* 41: 94-116.
- Peck, Jamie and Adam Tickell. 1994. "Searching for New Institutional Fix: the After-Fordist Crisis and the Global-Local Disorder." in *Post-Fordism: a reader*, edited by Ash Amin. Oxford and Malden: Blackwell.
- Petersen, George and Priscilla Phelps. 1997. "Municipal Credit Enhancement in South Africa: Strategic Opportunities for USAID." USAID, Washington DC.
- Pike, Andy and Jane Pollard. 2010. "Economic Geographies of Financialization." *Economic Geography* 86: 1, 29-51.
- Pine. 2010. "The performativity of urban citizenship." *Environment and Planning A* 42: 1103-1120.
- Platz, Daniel. 2009. "Infrastructure finance in developing countries—the potential of sub-sovereign bonds." United Nations DESA.

- Porter, Theodore. 1995. *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life*. Princeton: Princeton University Press.
- Poulantzas, Nicos. 1975. *Classes in Contemporary Capitalism*. London: New Left Books.
- Pradhan, Kanhu Charan. 2008. "How not to fund urban renewal." in *Live Mint.com and the Wallstreet Journal*.
- Prakash, Gyan. 1999. *Another Reason: Science and the Imagination of Modern India*. Princeton: Princeton University Press.
- Prudham, S and J McCarthy. 2004. "Neoliberal nature and the nature of neoliberalism." *Geoforum* 35: 3.
- Rakodi, Carole. 1995. "Housing finance for lower income urban households in Zimbabwe." *Housing Studies* 10: 2.
- Ramanathan, Ramesh. 2008. "Federalism, Urban Decentralisation and Citizen Participation." in *Development in Karnataka: Challenges of Governance, Equity and Empowerment*, edited by Gopal Kadekodi, Ravi Kanbur, and Vijayendra Rao. New Delhi: Academic Foundation.
- Ranganathan, Malini. 2008. "Grievance Redressal Processes in Urban Service Delivery: How Effective Are They?" *Governance Brief* 17: December.
- Ranganathan, Malini, Lalitha Kamath, and Vinay Baindur. 2009. "Piped Water Supply to Greater Bangalore: Putting the Cart Before the Horse?" *Economic and Political Weekly* XLIV: 33, 53-62.
- Rankin, Katharine. 2001. "Governing development: neoliberalism, microcredit, and rational economic woman." *Economy and Society* 30: 1, 18-37.
- Rao, A. 2006. "Selling piped water or pipe dreams? ." vol. 2006: India Together
- Rath, Sharadini and Madhusudhana Rao. nd. "The Greater Bangalore Water Supply Project." Center for Budget and Policy Studies, Bangalore.
- Rath, Sharadini and Madhusudhana Rao. 2006. "Study of Municipal Finances in Karnataka: 2001-2005." Center for Budget and Policy Studies, Bangalore.
- Ravindra, A. 1996. *Urban Land Policy: A Metropolitan Perspective*. New Delni: Concept Publishing.
- Ray, Raka. 1999. *Fields of Protest: Womens' Movements in India*. Minneapolis: University of Minnesota Press.
- Rice, Lewis. 1897a. "Mysore: A Gazetteer Compiled for Government, Volume I." Westminster: Archibald Constable and Company.
- . 1897b. "Mysore: A Gazetteer Compiled for Government, Volume II." Westminster: Archibald Constable and Company.
- Roitman, Janet. 2005. "Fiscal Disobedience: An Anthropology of Economic Regulation in Central Africa."
- . 2007. "The Right to Tax: Economic Citizenship in the Chad Basin." *Citizenship Studies* 11: 2, 187-209.
- Rose, Nikolas. 1999. *Powers of Freedom: Reframing Political Thought*. Cambridge: Cambridge University Press.
- Rose, Nikolas and Peter Miller. [1992] 2008. "Political Power beyond the State: Problematics of Government." Pp. 1-31 in *Governing the Present*, edited by Peter Miller and Nikolas Rose. Cambridge and Malden: Polity Press.
- Rose, Nikolas, Pat O'Malley, and Marianna Valverde. 2009. "Governmentality." in *The University of Sydney Law School Legal Studies Research Paper*. Downloaded from

- Roy, Ananya. 2003a. *City Requiem, Calcutta*. Minneapolis: University of Minnesota Press.
- . 2003b. "Paradigms of Propertied Citizenship: Transnational Techniques of Analysis." *Urban Affairs Review* 38: 4, 463-491.
- . 2008. *Calcutta Requiem: Gender and the Politics of Poverty*. Delhi: Dorling Kindersley.
- . 2009. "Why India cannot plan its cities: Informality, insurgence and the idiom of urbanization." *Planning Theory* 8: 1, 76-81.
- Rozario, Clifton. nd. "Cyber Myths and the rest of those who also live in Silicon valley." vol. 2008. Bangalore: Alternative Law Forum.
- Sangameswaran, Priya. 2009. "Neoliberalism and water reforms in western India: Commercialization, self-sufficiency, and regulatory bodies." *Geoforum* 40: 228-238.
- Sangameswaran, Priya, Roopa Madhav, and Clifton D'Rozario. 2008. "24/7, 'Privatisation' and Water Reform: Insights from Hubli-Dharwad." *Economic and Political Weekly*.
- Saxenian, AnnaLee. 2000. "Bangalore: The Silicon Valley of Asia." in *Conference on Indian Economic Prospects: Advancing Policy Reform*. Center for Research on Economic and Policy Reform, Stanford University.
- Sayre, Nathan. 2008. "Assessing the Effects of the Grundrisse in Anglophone Geography and Anthropology." *Antipode* 4: 5, 898-920.
- Sbragia, Alberta. 1983. *The Municipal Money Chase: The Politics of Local Government Finance*. Boulder: West View Press.
- Schenk, Hans. 1997. "The Rurban Fringe: A Central Area between Region and City, The Case of Bangalore, India." edited by M Chatterji and Y Kaizhang. New York: MacMillan.
- Schoenberger, Erica. 2003. "The Globalization of Environmental Management: International Investment in Water, Wastewater and Solid Waste Industries." in *Remaking the global economy: economic-geographical perspective*, edited by Jamie Peck and Henry Wai-Chung Yeung. London and New Delhi: Sage Publications.
- Scott, James. 1998. *Seeing Like a State*. New Haven: Yale University Press.
- Shakya, Yogendra and Katharine Rankin. 2008. "The Politics of Subversion in Development Practice: An Exploration of Microfinance in Nepal and Vietnam." *Journal of Development Studies* 44: 8, 1214-1235.
- Shamir, Ronen. 2008. "The age of responsabilization: on market-embedded morality." *Economy & Society* 37: 1, 1-19.
- Shashidhar, H. 2001. "Census of India, Series 30 - Karnataka, Paper 2 of 2001. Provisional Population Totals; Rural-Urban Distribution." Director of Census Operations, Government of Karnataka, Bangalore.
- Shivanand, Swati. 2007. "Abdication of responsibility: people of Thiaginagar slum consume water that is unfit for use." in *The Hindu*. Bangalore.
- Sikor, Thomas and Christian Lund. 2009. "Access and Property: A Question of Power and Authority." *Development and Change* 40: 1, 1-22.
- Singh, RL 1964. *Bangalore: An Urban Survey*. Varanasi: Tara Publications.
- Smith, Laila. 2004. "The murky waters of the second wave of neoliberalism: corporatization as a service delivery model in Capte Town." *Geoforum* 35: 375-393.
- Smith, Neil. 1984 [2008]. *Uneven Development: Nature, Capital, and the Production of Space*. Athens and London: University of Georgia Press.
- . 1996. *The New Urban Frontier: Gentrification and the Revanchist City*. Routledge.

- Soni, Aditi. 2008. "Pay mafia, get water." in *Bangalore Mirror*. Bangalore.
- Sparke, Matthew B. 2006. "A neoliberal nexus: Economy, security, and the biopolitics of citizenship on the border." *Political Geography* 25: 151-180.
- Sridharan. 2004. "The Growth and Sectoral Composition of India's Middle Class: Its Impact on the Politics of Economic Liberalization." *India Review* 3: 4, 405-428.
- Srinivas, Smriti. 2001. *Landscapes of Urban Memory: The Sacred and the Civic in India's High-Tech City*. Minneapolis: University of Minnesota.
- Srinivasan, RK and C Narasimha Moorthy. 1935. *Labour and Housing in Bangalore City*. Bangalore: Bangalore Press.
- Srinivasaraju, Sugata 2005. "Is 'It' All For Land?" *Outlook Magazine*, November 7.
- Stephens, JH. 1922. "Fraser Town - A Plague-Proof Town in India." *The American City* XXVI: 3, 235-238.
- . 1923. "A Plague-Proof City in India." *Popular Mechanics* 39: 1, 7-9.
- Suresh, TS. 2001. "An urban water scenario: a case study on the Bangalore metropolis, Karnataka." Pp. 97-104 in *Regional management of water resources: a symposium held during the Sixth Scientific Assembly*, edited by AH Shchuman. Maastricht, The Netherlands.
- Swanson, Maynard. 1977. "The Sanitation Syndrome: Bubonic Plague and Urban Native Policy in the Cape Colony, 1900-1909." *The Journal of African History* 18: 3, 387-410.
- Swyngedouw, E. 2004. *Flows of Power: the political ecology of water and urbanisation in Ecuador*. Oxford: Oxford University Press.
- The Economist 2005. "India: The Bangalore paradox." April 29.
- The Hindu. 2006a. "Janaagraha walks out of water project." in *The Hindu*. Bangalore.
- . 2006b. "Siemens drops Bangalore from expansion plans." in *The Hindu*. Bangalore.
- . 2007a. "Residents block Hosur Road demanding water supply." in *The Hindu Newspaper*, available online at <http://www.hindu.com/2007/04/12/stories/2007041217610500.htm>. Bangalore.
- . 2007b. "Sakrama: High Court in dilemma, adjourns case to December 10." Bangalore.
- . 2008. "Bommanahalli residents stage protest: Through collective struggle they succeed in getting concrete assurances from officials." in *The Hindu : Karnataka / Bangalore News*.
- . 2009. "Unauthorised layouts, sites to be regularised." July 29.
- . 2010. in *Akrama-Sakrama to generate Rs. 10,000 crore*. Bangalore.
- Times of India. 2006. "Water aplenty but does not reach the people." in *Times of India*.
- . 2009. "Vote for Water: Bangalore reels under a water crisis which candidates must take seriously " in *Times of India*. Bangalore.
- ToI. 2008. "Flooded layout cries for help." in *Times of India*. Bangalore.
- . 2010. "Civic services to be benchmarked." in *Times of India*. Bangalore.
- Toshniwal, Kriti and Vinod Vyasulu. 2008. "Karnataka: Fiscal Correction for Human Development? A Study of State Budgets 2000-2008." Center for Budget and Policy Studies, Bangalore.
- Tsing, Anna. 2004. "Inside the Economy of Appearances." in *The Blackwell Cultural Economy Reader*, edited by Ash Amin and Nigel Thrift. Malden: Blackwell.
- . 2005. *Friction: An Ethnography of Global Connection*. Princeton: Princeton University Press.

- Turner, Frederick Jackson. 1994. "The significance of the frontier in American history." in *Rereading Frederick Jackson Turner*, edited by John Mack Faragher. New York: Henry Holt.
- UN Habitat. 2008. "State of the World's Cities: Harmonious Cities." United Nations Habitat.
- . 2010. "State of the World's Cities: Bridging the Urban Divide." United Nations Habitat.
- Upadhyay, Carol. 2009. "India's 'New Middle Class' and the Globalising City: Software Professionals in Bangalore, India." in *The New Middle Classes: Globalizing Lifestyles, Consumerism and Environmental Concern*, edited by Helmuth Lange and Lars Meier. London and New York: Springer.
- Urs, Kshitij and Richard Whittel. 2009. *Resisting Reforms? Water Profits and Democracy*. New Delhi: Sage Publications India
- USAID. 2003. "Pooled Finance Framework For Greater Bangalore Water Supply and Sewerage Project for Eight Cities in Bangalore Metropolitan Area." Indo-USAID Financial Institutions Reform and Expansion Project, Bangalore.
- . 2004a. "Indo-US Financial Institutions Reform and Expansion Project - Debt Market Component
- FIRE(D): FIRE Project Notes Compilation." United States Agency for Int'l Development.
- . 2004b. "Indo-US Financial Institutions Reform and Expansion Project - Debt Market Component FIRE(D): FIRE Project Notes Compilation." United States Agency for Int'l Development.
- . 2005. "Case Studies of Bankable Water and Sewerage Utilities: Volume I Overview Report." United States Agency for International Development, Washington DC.
- . 2006. "Greater Bangalore Water and Sewerage Project." *Indo-USAID FIRE D Project Note* 35.
- Vaidya, Chetan and Hitesh Vaidya. 2008. "Creative Financing of Urban Infrastructure in India through Market-based Financing and Public-Private Partnership Options." in *9th Metropolitan Congress*. Sydney.
- Vijayabaskar, M and A Wyatt. 2005. "The World Bank and the Governance of Development in India." in *Annual Conference of the UK Political Studies Association*. Leeds.
- Vincent, Subramaniam and HBS Aradhya. 2008. "Developed or hodge-podge, you decide." *Citizen Matters*: December 24.
- Vishwanath, S. 2007. "Sustainable water for Bangalore " in *The Hindu*. Bangalore.
- . 2009. "Groundwater management in Bangalore: Understanding groundwater." vol. 2010. Bangalore: Rainwater Harvesting Club.
- Vithal, BPR. 1997. "Evolving Trends in Bureaucracy." in *State and Politics in India* edited by Partha Chatterjee. New Delhi: Oxford University Press.
- von Schnitzler, Antina. 2008. "Citizenship Prepaid: Water, Calculability, and Techno-Politics in South Africa." *Journal of Southern African Studies* 34: 4, 899-917.
- Wallack, Jessica and Srikanth Nadhamuni. 2008. "User innovation and E-governance Design."
- Williams, Raymond. 1976 [1983]. *Keywords: a vocabulary of culture and society*. New York: Oxford University Press.
- World Bank. 2004a. "An Assessment of the Impact of Bangalore's Citizen Report Cards on the Performance of Public Agencies." World Bank, Washington DC.
- . 2004b. *World Development Report*. Washington DC: World Bank.
- . 2005. "Demand for Improved Water Supply and Sewerage Services in Eight Urban Local Bodies of Greater Bangalore." New Delhi: World Bank.

- . 2006. *Project Appraisal Document on a Proposed Loan in the amount of US \$216 million to the Republic of India for the Karnataka Municipal Reform Project, February 14, 2006*. Washington DC: World Bank/IBRD.
- Wright, Eric Olin. 1984. "A General Framework for the Analysis of Class Structure." *Politics Society* 13: 383-423.
- WSP. 2007. *Engaging with Citizens to Improve Services*. Washington DC: Water and Sanitation Program-South Asia, World Bank.
- Zerah, Marie-Helene. 2007. "Middle Class Neighbourhood Associations as Political Players in Mumbai." *Economic and Political Weekly* 42: 7, 61-68.
- Zimmerer, Karl S and Thomas J Bassett. 2003. "Political Ecology: An Integrative Approach to Geography and Environment-Development Studies." New York: Guildford Press.

Appendix A: Research Methodology

In this dissertation, I deployed a multi-sited and multi-scaled ethnographic approach in the study of contemporary reform policy-making and practice. In such an approach, the object of study cannot easily be located in a fixed site but evolves through connections and associations between multiple research sites and scales—from the global to the state, city, and neighborhood scales. To collect data, I relied on in-depth semi-structured and open-ended interviews and participant observation of the everyday habits and narratives of people, along with a review of archival material, newspapers, and other project-related documents. These methods allowed me to triangulate findings across different sources in order to build a more robust set of claims.

In the following appendix, I detail the justification for the selection of my case studies and research sites, samples of my interview protocols, and a description of activities I undertook in the field.

Selection of case studies

I spent the initial months of my research in 2007 scoping out a range of urban reform projects underway in the state of Karnataka, the vocabulary of these projects, their stated goals, and the various actors involved in their decision-making and implementation. I conducted this scoping assessment by attending workshops and conferences in the city, through a series of interviews with governmental and non-governmental experts, and through a review of official literature published on the content of these projects.

I quickly discovered that water and sanitation was the prime focus of internationally and domestically financed urban sector projects in the state. Most of these projects are either focused on improving the institutional aspects of water governance (e.g. through e-governance, accounting reforms, and other measures thought to enhance accountability and transparency), or its cost recovery potential (e.g. through user charges, leakage reduction, and other revenue enhancing measures). This two-pronged strategy of getting both the institutions and prices “right” is emblematic of the broader agenda for municipal reform in the country as can be seen by the Jawaharlal Nehru National Urban Reforms Mission. Launched in 2005 and covering 63 major cities across the country, this multi-city national reform program ties investment support for urban infrastructure to several mandatory and optional institutional and cost recovery reforms similar to the type studied in this dissertation. As I reviewed existing projects in Karnataka, I also realized that several were focused on the peripheral, underserved municipalities at Bangalore’s fringes where most future population and industrial growth is expected.

Taking this scoping assessment into account, I narrowed in on two interconnected case studies that are both representative of the current spate of urban reform efforts in the country and which were implemented in the eight towns surrounding Bangalore: the Nirmala Nagara program and the Greater Bangalore Water and Sewerage Project. Salient features of these projects are summarized in the table below.

Table A.1. Salient Features of Case Studies

	Nirmala Nagara Municipal Reforms [now scaled up to Karnataka Municipal Reforms Project (KMRP)]	Greater Bangalore Water and Sanitation Project (GBWASP)
Components	E-governance applications for: <ul style="list-style-type: none"> Public grievance redressal around municipal services Property tax Municipal accounting Registration of births and deaths City inventories and payrolls 	<ul style="list-style-type: none"> Piped water supply for people living at the periphery Demonstration of a market-based financing model Cost recovery based on beneficiary contributions
Keywords employed in statement of objectives	<ul style="list-style-type: none"> Accountability Citizen participation Transparency Discipline Efficiency 	<ul style="list-style-type: none"> Responsibility Stakeholder Citizen participation Discipline
International agencies involved	<ul style="list-style-type: none"> ADB (through its second loan to Karnataka focusing on coastal towns) 	<ul style="list-style-type: none"> World Bank (including WSP and IFC) USAID
Government agencies involved	<ul style="list-style-type: none"> UDD DMA KUIDFC (once Nirmala Nagara was scaled up to KMRP) 	<ul style="list-style-type: none"> UDD KUIDFC DMA (until BBMP was formed) BWSSB
Timeframe	2003-2005 (KMRP commenced in 2006 and is on-going)	2003-2009 (beneficiary contribution policy is on-going)
Location	57 municipalities throughout Karnataka, including the eight surrounding Bangalore (now consolidated into BBMP)	Eight municipalities surrounding Bangalore (now consolidated into BBMP)

Research sites and subjects

I conducted research at six different scales in order to understand the genesis and history of the reform agenda in Karnataka today, the details of the specific case study projects detailed above, and their workings on the ground in the peri-urban localities in which they were implemented. These multiple scales allowed me to analyze how experts debate municipal problems and policy solutions and how projects affect the groups they target. Conversely, such a multi-scaled approach also provided insight into how project outcomes shaped the design of policy. The various scales and sites at which I conducted interviews along with the number of interviews are given in parentheses below. Requests for anonymity have been honored.

At the global scale, I spent two months in 2007 at the Asian Development Bank as an intern with the South Asia Urban Development Department. This vantage helped me to understand the institution's broader history of lending, how decisions about development loans to the urban water sector are made, whose knowledge is prioritized in project design, the discourses used to construct problems and solutions related to water governance, and project-specific data and outcomes. The set of experts that I interacted with and interviewed included:

- Private Sector Participation in Water Specialists (2)
- Governance and Capacity Building Specialists, Operation Evaluations Department (2)
- Governance Specialists, Regional and Sustainable Development Department (6)
- Water Financing Specialists, Water Financing Partnership Facility (2)

At the national scale in India, I relied on expert interviews at federal ministries and at major academic think tanks and institutions in New Delhi, including the:

- JNNRUM Technical Assistance Cell of the Ministry of Urban Development managed by Price Waterhouse & Cooper consultants (1)
- National Institute of Public Finance and Policy (1)
- Jawaharlal Nehru University (1)

At the state level, I sourced data on specific projects at the library of KUIDFC. I also conducted interviews with several state-level bureaucrats and other financial experts including those at or formerly at the:

- Urban Development Department, Government of Karnataka (4)
- Municipal Reforms Cell, Department of Municipal Administration, Government of Karnataka (3)
- City Manager's Association of Karnataka (1)
- KUIDFC (6)
- E-Governments Foundation (3)

At the city scale, in order to understand how the two case studies were implemented and with what effects, I carried out fieldwork in three peri-urban localities: Bommanahalli in the southeast, Byatarayanapura in the north, and Krishnarajapuram or KR Puram in the east. I first selected Bommanahalli for logistical reasons—this was an area close to where I lived and was hence relatively easier to commute to on a regular basis. I also selected Bommanahalli because it is one of the fastest growing peri-urban regions of the city and an area with acute infrastructural problems. With its concentration of technology-related businesses stretching along the Hosur Road to Electronic City, real estate development and unauthorized revenue layout development have both flourished in Bommanahalli over the past decade.

As I began to uncover the associational dynamics of the peripheralized middle class in Bommanahalli, I added two more peri-urban sites to my research: Byatarayanapura and KR Puram. The resident welfare associations of both areas were featured in newspapers and were participants in citywide networks for civic activism. Although they have distinct histories—Byatarayanapura and KR Puram, for instance, formerly housed the major public sector industries and townships in Bangalore, all three peri-urban localities that I focused on today have a high concentration of revenue layouts and the associated land tenure and services issues. An overview of the major characteristics of my peri-urban sites is provided in Table A.2 below.

Table A.2. Overview of Peri-Urban Research Sites

	Bommanahalli	Byatarayanapura	KR Puram
Population in 2001	201,652	180,931	187,453
Literacy rate in 2001	81%	73%	78%
Examples of major economic activities	Garment manufacturing; small machine shops; commerce and services; technology-related and business process outsourcing industries, particularly closer to Electronic City; real estate	Formerly a hub for public sector industries such as BEL; today concentrates small-scale industries; commerce and services; and real estate, particularly nearer the new airport in Devanahalli	Formerly a hub for public sector industries such as ITI; today concentrates real estate; technology-related and business process outsourcing industries, particularly closer to Whitefield and the International Tech Park Ltd.
Administrative structure	Formerly a CMC; currently falls under the Bommanahalli zone of BBMP which has a population of 431,867	Formerly a CMC; currently falls under the Byatarayanapura zone of BBMP which has a population of 461,934	Formerly a CMC; currently falls under the Mahadevapura zone of BBMP which has a population of 519,663

Source: Census of India (2001) and <http://www.bbmp.gov.in/>

I conducted multiple interviews at the central and local offices of the water board and at the zonal offices of three peri-urban localities. These interviews included:

- BWSSB Office of the Chief Engineer (CMCs) (2)
- BWSSB Office of the Chief Engineer (Wastewater) (1)
- BWSSB South Division (4)
- BWSSB Bommanahalli Office (4)
- BWSSB Byatarayanapura Office (4)
- Meinhardt Consultants for GBWASP (3)
- Contractors for GBWASP (2)
- Joint and Deputy Commissioners for Bommanahalli Zone (3)
- Assistant Executive Engineers for Bommanahalli Zone (6)
- Assistant Executive Engineers for KR Puram Zone (2)
- Assistant Executive Engineers for Byatarayanapura Zone (6)
- Office Administrator, Bommanahalli Zone (multiple)
- Community Affairs Office, Bommanahalli Zone, (4)
- Revenue Officer for Byatarayanapura Zone (2)
- Accounts Officer for Byatarayanapura Zone (2)
- Health Officer for Bommanahalli Zone (4)
- Help Desk for Bommanahalli Zone (multiple)
- Help Desk for Byatarayanapura Zone (multiple)

In addition to the above officials, I also interviewed the following elected representatives:

- Ex-Councilor Gopal Reddy (BJP), Bommanahalli
- Ex-Councilor T Ramachandra (Congress), Bommanahalli
- Ex-Councilor Sayed Anwar (Congress), Bommanahalli

- Ex-Councilor Ramesh (Congress), Byatarayanapura
- Ex-Councilor Ravi, Gottigere (BJP), Bommanahalli
- Ex-Councilor and Arakere Association President Ravi Purushottam (BJP), Bommanahalli
- Ex-Grama Panchayat Member of Bellandur, Janardhana Reddy, Bommanahalli
- Ex-Councilor Raju, Byatarayanapura
- Member of Legislative Assembly, Satish Reddy (BJP), Bommanahalli
- Member of Legislative Assembly, Krishna Byre Gowda (Congress), Byatarayanapura

In Bommanahalli, I developed enough familiarity with the municipal employees that I was allowed access to the receipts for cash payment under the Greater Bangalore water project. I gathered data on cumulative payments by month, payments by category of property size, and payments by ward.

At the neighborhood scale, I conducted 44 in-depth interviews and focus group discussions across 25 associations in Greater Bangalore:

- JP Nagar 7th and 8th Phase Residents Welfare Federation, Bommanahalli
- Singasandra Residents Welfare Association, Bommanahalli
- Hongasandra Mico Layout Residents Welfare Association, Bommanahalli
- Arakere Mico Layout Residents Welfare Association, Bommanahalli
- Supraja Nagar Layout Residents Welfare Association, Bommanahalli
- DYFI Civic Welfare Platform, Bommanahalli
- Muni Reddy Layout Residents Welfare Association, Bommanahalli
- HSR Layout Residents Welfare Association, Bommanahalli
- MS Ramaiah Residents Welfare Association, Bommanahalli
- Bandepalya Dalit Sangha, Bommanahalli
- Panduranga Residents Welfare Association, Bommanahalli
- Anugraha Layout, Residents Welfare Association, Bommanahalli
- Srinivasa Layout Residents Welfare Association, Bommanahalli
- Ramamurthy Nagar Residents Welfare Association, KR Puram
- Pai Layout Residents Welfare Association, KR Puram
- Guru Dakshin Layout Residents Welfare Association, Byatarayanapura
- Doddabomasandra Civic Welfare Platform, Byatarayanapura
- Virupakshapura Layout Residents Welfare Association, Byatarayanapura
- DEE Layout Residents Welfare Association, Byatarayanapura
- Chiranjeevi Layout Residents Welfare Association, Byatarayanapura
- Hindustan Machine Tools (HMT) Layout Residents Welfare Association, Byatarayanapura
- Bharat Electronics Limited (BEL) Layout Residents Welfare Association, Byatarayanapura
- DEE Layout Residents Welfare Association, Byatarayanapura
- Singapura Layout Residents Welfare Association, Byatarayanapura
- Air Force Golden Jubilee Defense Layout Residents Welfare Association, Byatarayanapura

Interview Protocol

Sample questions for state-level bureaucrats and other experts

Background to reforms

- Could you please describe the main focal areas for urban infrastructure reforms, particularly in the water sector in Karnataka today?
- How are international development agencies involved in these reform programs and projects?
- In what ways is the current generation of international financing for water in Karnataka different from past programs?
- In what ways are these projects trying to bring about “good” urban governance and what does that mean to you? How much of the idea of “good” governance is conceptualized by external lenders and how much of it is conceptualized by the Government of Karnataka?
- Could you please speak a bit about the history of KUIDFC: Where did the impetus for KUIDFC come about? What is its mandate? What role does KUIDFC play vis-à-vis internationally financed projects? Who is KUIDFC accountable to? What do you think KUIDFC has learned since its inception through various internationally funded projects?

Specific to Nirmala Nagara

- The reform component of KMRP is a scaling up of Nirmala Nagara. On what basis was this decided? Have any lessons from Nirmala Nagara been incorporated into KMRP? For example, what has been the experience of the Public Grievance Redressal module?
- Where did the impetus for Nirmala Nagara come from? To what extent do you think international financial institutions such as the ADB influenced the design of the program and to what extent were local civil society actors influential?
- Where do you think the greatest achievements of the program lie to date? What do you feel could have been improved?
- The Nirmala Nagara project brief says, “Greater accountability and citizen participation will be the pivot”. Could you please describe your impressions of the public grievance redressal module? In what areas have citizens participated? Which groups? How successful has this been?

Specific to GBWASP

- How did the GBWASP come about? Who initiated it? Who is involved? How much money is involved? In which areas has it been implemented and up to what stage? What is the future timeline?
- Could you please describe how USAID-FIRE-D first became involved in GBWASP and why?
- On what basis did you feel that the pooled financing model was viable (e.g. experience elsewhere, best practice literature, etc)?
- I understand that the beneficiary capital contribution (BCC) structure on the basis of property size was assessed based on the fact that it is not feasible to assess

- income for every house. How was each amount per property size determined? Who undertook the research on BCC and where was the model adopted from?
- An ex-councilor of Bommanahalli CMC whom I spoke to recently was not aware that the CMC would be taking a loan out for GBWASP, nor was he aware that pro-rata charges for 2+ floors would be levied. Do you think that sufficient attempts were made at passing information down to the elected representatives?
 - Who developed the information packet with FAQs on GBWASP and how was it made available to the public?
 - The information packet mentions “citizens will be elevated to the status of stakeholders through BCC so that they can be involved in design and implementation”. To what extent do you think this has actually happened?
 - Why was the delivery of water so delayed from the initial completion date of 2005?

Sample questions for city-level utility and municipal actors

- What are the most serious service complaints in this zone and how are they attended to?
- How is water supply currently managed in this peri-urban area?
- Are any wards getting Cauvery water currently and since when?
- Have all the meters been installed? How many of the household connections are actually getting water?
- What proportion of people who have paid are getting water now (as of 2009) vs. proportion who will get water in 2012? What will they do in the mean time?
- Are there any slums getting water to date?
- What is the status of the pipe laying in phase I? What about phase II? Were there any additional delays in phase II?
- What have been some of the technical challenges for the contractors who are laying the pipelines? Are some zones more difficult than others due to growth patterns?
- What is the logic behind pipeline laying? Which areas were prioritized and why?
- Where was original 135 MLD allocated? Did any of it reach Greater Bangalore?

Semi-structured interview protocol for resident welfare associations

- Name of area and location?
- Person being interviewed and position, how long s/he has lived in the area, and how long position has been held for?
- Why was association first formed (i.e. brief history)?
- Is RWA registered under Societies Act (1960)? When was it registered?
- Is the area a BDA-approved site or a revenue layout site?
- If BDA, when was approval granted? If not, when was the application made?
- How many houses are members of the association?
- What are the monthly/yearly association dues?
- Have any households paid betterment charges (e.g. Akrama Sakrama)?
- Do all the households have khata?
- What are the major grievances that your area has faced?

- What are some of the main struggles the association has fought (e.g. land litigations, Akrama Sakrama, Cauvery water connections, roads, drainage, garbage removal, mosquito menace, etc)?
- What have been the major achievements in the past 5 years?
- Are the various problems discussed in weekly/biweekly meetings? How are they prioritized?
- Have these problems changed over time? How do they compare today's problems with 5, 10 years ago (if the person has lived there for a long time)?
- When the association faces a problem, how is it solved? For instance, does someone approach the BBMP office, call local councilor, group protest, donations, etc?
- What are the problems that have to do with water specifically, if any? How do most residents get water?
- When a problem with water is faced, who specifically is contacted (before BBMP and after BBMP)? What is the response of the authorities (i.e. do they give a specific time frame, are they courteous, etc)?
- Has the person paid GBWASP BCC charges? How much and when?
- If yes, then why did they pay? If not, then why not?
- Approximately how many households in the area have paid the BCC?
- What kind of informational meetings were held in 2004 about BCC collection through the initiative of BWSSB? What about 2005 – 2008?
- Did the RWA themselves conduct any meetings about GBWASP on their own? What did they discuss in these meetings?
- Was the RWA involved in convincing all members to pay the BCC? Why did they do this?
- Did any politicians (e.g. councilors, MLAs) intervene in anyway over GBWASP on their behalf with BWSSB authorities?
- Was the RWA involved in putting pressure on BWSSB engineers? What about at the level of the chairman? How many times?
- When do they expect that Cauvery water will come? Who gave them this information?
- In general, what is their perception about this project? Has it been well-managed? Will people benefit? Is enough information flowing to the people?

Other field activities

- Attended and presented at the National Institute for Advanced Studies, Indian Institute of Science Workshop on Water Challenges in Greater Bangalore, March 27, 2007
- Attended conference on Urban Waters organized by Arghyam, Bangalore, April 5, 2007
- Attended meeting of Reclaiming Back Public Water hosted by the Campaign Against Water Privatization on April 27, 2007
- Attended KUIDFC Workshop held at the National Law School on Private Sector Participation in Water – Issues and Concerns, June 2, 2007
- Attended workshop on Urban Governance, Infrastructure Planning and the Urban Poor organized by CASUMM and CIVIC Bangalore, December 18, 2007

Appendix B: Profile of the BWSSB

Established in 1964, the Bangalore Water Supply and Sewerage Board (BWSSB) is a state-owned utility charged with the responsibility of providing drinking water and sewerage services for the Bangalore Metropolitan Area. The board is widely considered to be one of the best-run water utilities in India because 95% of legal connections (approximately 500,000 connections were recorded in 2006) are metered. In 2009, the board received an award from the Ministry of Urban Development for instituting financial reforms and enhancing cost recovery, particularly through the establishment of 24x7 electronic kiosks at which bills can be paid. Although the utility handles valve operations, meter reading, and billing, several other functions such as procurement, connections, and revenue collection are outsourced to private contractors. Private consultants and/or consultants hired by international development agencies have also typically conducted long-term planning exercises on behalf of the utility.

As described in Chapter 2, Bangalore does not have any perennial water source of its own apart from the Arkavathy River. Since the two reservoirs on the Arkavathy River (Hesaraghatta and Thippagondanahalli) have almost completely run dry, today, the utility sources its water almost exclusively from the Cauvery River located some 98 km from the city. Approximately 50% of the city's water demand is met through borewells, of which the BWSSB maintains around 6,000. As Table B.1 shows, sourcing water from the Cauvery has become progressively more capital-intensive and expensive over the years, not to mention more energy intensive (the board spends about 80% of its revenue on electricity charges for pumping water). The latest and most costly projects to improve bulk water supply from the Cauvery (Cauvery Stage IV, phases I and II) are financed through Japanese bilateral development cooperation.

Table B.1. BWSSB's Water Sources

Source and name of waterworks project	Year of commissioning	Distance to Bangalore	Capacity (MLD)	Investment in Rs. million
<i>Arkavathy River</i>				
Hesaraghatta	1896	18	22.5 (now dry)	-
Thippagondanahalli	1933	28	Down to < 60 from an original 143	-
<i>Cauvery River</i>				
Stage I	1974	98	135	360
Stage II	1982	98	135	850
Stage III	1993	98	270	2,400
Stage IV, phase I	2002	98	270 + 100	10,270
Stage IV, phase II	2012-14 (expected)	98	500	37,8401

BWSSB's domestic and non-domestic tariff structure is based on a progressive slab system whereby lower consumption is priced at lower per unit rates than higher consumption (see Table B.2). According to a study conducted by GS Sastry of the Institute for Social and Economic Change, Bangalore, domestic tariffs still fall well below the production cost of water in Bangalore, which averages Rs 23.13/kL.

Table B.2. Domestic Increasing Block Rates of BWSSB

Consumption (m ³)	Rate
0-8*	6.00
8-25	9.00
25-50	15.00
50-75	30.00
75-100	36.00
Above 100	36.00

*Minimum monthly charge is Rs. 48

In addition to these tariffs levied on a monthly basis, for new connections, households must pay Rs. 1,760 for the meter and Rs. 950 for the cost of connection, plus prorata charges for connecting houses of more than two floors. The latter can amount to Rs. 100,000 depending on the dimensions of the property.

Approximately 40% of all water being supplied to the city is considered “unaccounted for”—i.e. water that is “lost” either because of physical leakage in the distribution process or because it is non-revenue earning but not specifically designated as such (i.e. not water for government agencies and charitable trusts). The main sources for unaccounted for water according to technical studies are due to leakages in distribution (not transmission) mains and service pipes, unauthorized connections, public standpipes, and meter defects. One of the main goals of utility reform is “leakage reduction”, currently being investigated and implemented through various international assistance packages in Bangalore. However, although couched in technical terms, there are controversial political and equity issues concerning the reduction of unaccounted for and non-revenue water in Bangalore, particularly as far as the removal of public standpipes are concerned. Such technical exercises also mask the politics of water allocation and end-use whereby certain consumers are denied a minimum amount of subsidized water for basic needs while higher end consumers are allocated significant amounts for non-essential needs. These are realities that BWSSB engineers are working to address through various rationing programs and efforts to explore alternative water sources.

Appendix C: Type of Water Reforms Initiated in India

Type of reform	Key actions	Examples
<i>Private sector participation (PSP)</i> ¹¹⁶		
Build Own Transfer (BOT)/Build Own Operate Transfer (BOOT)	Private sector builds, owns (and runs) assets for a period of 20 or so years after which ownership reverts to public sector.	Degremont sanitation and wastewater treatment, Bangalore
Management/service contracts	Tasks are handed over to private company but company bears no commercial risk or ownership of assets.	Hubli, Dharwad, Belgaum, Gulbarga; Delhi Jal Board (attempted)
Concessions	Responsibility of investment, risk, and distribution handed over to a private company within a certain area of city for 20 or more years.	Rare in India; attempted in Pune but failed due to loss of political support
<i>Internal reorganization in the public sector</i>		
Corporatization	Establishment of parastatal water board (unbundling may happen at a later stage) Adoption of private sector management principles in line with the “New Public Management”, e.g. use of information technology for “grievance redressal”, use of performance incentives, reduction in staff/connections ratio	Bangalore Water Board; Metrowater in Chennai; Hyderabad Water Board
Commercialization	Use of different accounting principles in municipalities and property tax reform Cost recovery measures such as “leakage reduction” (including closure of public taps) and reduction of non-revenue and unaccounted for water; aggressive cut-offs for non-payment; greater bill collection efficiency; lowering barriers to connection; tariff reform Market-based finance such as use of bonds, pooled finance, credit ratings facilitated through USAID’s FIRE-D (financialization)	Property tax reform and double-entry accounting reforms in Karnataka through Nirmala Nagara and KMRP BWSSB’s AusAid-funded reforms Ahmedabad; Allandur Sewerage Project; GBWASP
<i>Regulatory reforms</i>		
Establishment of independent regulator	Mimics independent regulator in electricity sector	Maharashtra

¹¹⁶ Although these forms of PSP are institutionalized through reforms, they are not the only varieties that exist. Private tankers, local service contracts for billing and line maintenance, community-owned systems, etc. have existed for decades in Indian cities. The ones listed in this table, however, involve large private corporations—very often multinationals and thus the forms of privatization listed here qualitatively different from pre-existing set-ups.

Appendix D: Institutions Involved in GBWASP

Institution	Type	Role
United States Agency for International Development (USAID)-Financial Institutions Reform and Expansion through Debt (FIRE-D) component	International financial institution	To design the market-oriented pooled financing framework
World Bank	International financial institution	To fund the sanitation component of the project through the Karnataka Municipal Reforms loan, signed in 2006
World Bank's Water and Sanitation Program (WSP)	International financial institution that provides small grants and loans for water and sanitation-specific projects	To carry out a willingness to pay survey and produce a demand curve for water pricing
World Bank's International Finance Corporation (IFC)	International financial institution/private sector promotional arm	To serve as transaction advisor for suggesting privatization of water and sanitation
Urban Development Department (UDD)	State government apex entity	To steer the GBWASP sub-committee
Karnataka Urban Infrastructure Development Finance Corporation (KUIDFC)	Public financing intermediary of the state government	To implement GBWASP and serve as the main decision-making entity on GBWASP sub-committee
Department of Municipal Administration (DMA)	State government apex entity; oversees administration in municipalities and urban <i>grama panchayats</i>	To sit on the GBWASP sub-committee and assist decision-making
Bangalore Water Supply and Sewerage Board (BWSSB)	Parastatal water board, a state government entity	To execute GBWASP and be the service provider
Eight urban local bodies	Elected local governments (now merged with Bangalore)	To collectively take on and pay back GBWASP loans (both bonds and MegaCity loan)
Meinhardt, Ltd (Singapore)	Private project management consultant	To oversee engineering design and implementation
IDECK	Private financial analyst	To conduct financial viability analysis for USAID
Trilegal	Corporate legal advisor	To provide legal advisory services for privatization
Indian Credit Rating Agency (ICRA), a subsidiary of Moody's	Credit rating agency	To perform credit rating of eight municipal entities
Janaagraha	Non-governmental organization	To encourage citizen participation and payment of beneficiary contributions
Larson and Toubro, East Coast Construction and Industries Ltd., IVRCL, Ltd	Engineering contractor	To carry out physical works
Syndicate Bank and ING Vysya	Bank	To collect cash contribution