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### Publication Date

2015

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Re-Cycling Class:

The Cultural and Environmental Politics of the New Middle Classes of Bangalore, India

By

Manisha Anantharaman

A dissertation submitted in partial satisfaction of the  
requirements for the degree of

Doctor of Philosophy

in

Environmental Science, Policy, and Management

in the

Graduate Division

of the

University of California, Berkeley

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Spring 2015

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By Manisha Anantharaman

## Abstract

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by

Manisha Anantharaman

Doctor of Philosophy in Environmental Science, Policy, and Management

University of California, Berkeley

Professor Alastair T. Iles, Co-Chair

Professor Dara J. O'Rourke, Co-Chair

My dissertation examines the environmental politics of the new middle classes of India through a study of two parallel communities of practice that advocate for bicycling and for sustainable waste management through recycling and composting in the city of Bangalore. The new middle classes of urban India have been identified as fast-growing, aspirational, high-consuming, large-environmental footprint populations whose lifestyle politics often marginalize and disfranchise the urban poor. They are hence pivotal populations both for assessments of environmental impact and for sustainability studies.

Through community engagement, and using qualitative and ethnographic research methods, I investigate the conditions under which some members of Bangalore's new middle classes adopt pro-environmental activities such as bicycling and waste management, and the social processes by which these practices are both stabilized and contested. Through a differentiated analysis of bicycling and zero waste management in Bangalore, I show that these pro-environmental or "sustainable" practices both reproduce and occasionally transform how the middle classes relate to their own identities, to city spaces, and to members of the urban poor in the city. I use these cases to politicize the link between "sustainable" behaviors and class identity, as a means to more critically evaluate the cultural politics of middle class eco-friendly practices.

The findings of my dissertation show that the practice of sustainable behaviors is directly enabled by privilege. The new middle classes deploy their accumulated economic, cultural, and social capital to change infrastructures and social norms, and use a diversity of political strategies to recruit state support for their practices which are clearly marked as "pro-environmental" and "eco-friendly" and at the same time, elite. This is in stark contrast with the "quotidian" sustainability practiced by members of the poor and working classes, for whom bicycling and waste recovery are livelihood strategies.

Using and extending social practice theory, I introduce the term *defensive distinctions* to mark practices such as bicycling and waste management that render middle class actors simultaneously

elite and ethical. The middle classes invoke environmental discourses to make practices that are actively associated with thrift and deprivation “appropriate” for middle class status. In doing so, they are able to distinguish their bicycling and waste management practices both from other members of their own class and from the practices of the poor. Using detailed analysis of how middle class environmentalism simultaneously incorporates and elides the environmentalism of the poor, I show that this *othering* of the poor is problematic as it reproduces enduring social inequalities along class (and caste) lines. It also limits the potential of these middle class sub-cultures to be inclusive to other social groups, often excluding them from direct participation in negotiating changes to infrastructures and social norms. However, I identify that under certain conditions, particularly in the case of waste management, coalitions can be built between middle class actors and waste workers, thereby opening up spaces for the inclusion of informal sector waste workers in decentralized waste management systems.

I introduce the term *pragmatic partnerships* to define the cross-class coalitions and networks of interaction that enable the possibility of transforming the relational class politics of environmental practices amongst Bangalore’s significant new middle classes and their dependent urban poor. I argue that a critical study of the conditions under which these coalitions emerge is important to identifying opportunities for a more equitable and just environmentalism of the middle classes that both includes and acknowledges the “quotidian” environmentalism of the poor, while opening up opportunities for accessing better livelihoods, identities, and negotiating platforms for informal sector waste workers and other sections of the urban poor.

My work reminds us that the environmental politics practiced by the new middle classes in India are dynamic and contingent. As the new middle classes grow in size and discursive power, their aspirations to live in modern “clean and green” cities strengthen, as do their desires to identify with a cosmopolitan culture of modernity. As environmental ideas and practices become more and more a part of Western modernity, they also become attractive to the transnational elites of India who take their cues from California and Europe. These changes produce new practices and new dynamics in middle class environmentalism. The new (individualized environmentalism) is mixed with the old (cultures of servitude) to then produce hitherto under-theorized interactions and relationships.

My dissertation shows that the dynamics of environmental action at the level of home, community, and state have a complex relationship to class. Not only is it necessary to politicize and problematize class politics in the environmental practices of the middle classes, it is essential to look for the interstitial spaces of possibility and brief moments of transformation engendered by cross-class alliances that can show the way to more socially-just sustainable futures. The key to achieving the socially-just greening of Indian cities, I conclude, lies in the ability of middle class and working class actors to form cross-class alliances that can jointly advocate for changed behaviors, infrastructures, and policies that emphasize not just sustainability, but also equity and justice.

For Rusty



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## List of Acronyms

BATF: Bangalore Agenda Task Force  
BBMP: Bruhath Bengaluru Mahanagara Pallike (Greater Bangalore City Corporation)  
BDA: Bangalore Development Authority  
BEL: Bharat Electronics Limited  
DULT: Department of Urban Land and Transport  
DWCC: Dry Waste Collection Centers  
ESG: Environment Support Group  
GOK: Government of Karnataka  
GOI: Government of India  
ITC WOW: Indian Tobacco Corporation Wealth Out of Waste program  
KSPCB: Karnataka State Pollution Control Board  
MOEF: Ministry of Environment and Forestry, Government of India  
MSW: Municipal Solid Waste  
MSWM: Municipal Solid Waste Management  
NGO: non-governmental organization  
NMC: New Middle Class  
OECD: Organization for Economic Cooperation and Development  
PIL: Public Interest Litigation  
RACF: Ride a Cycle Foundation  
RWA: Residents' Welfare Association  
SPT: Social practice theory  
SWMRT: Solid Waste Management Roundtable  
ULB: Urban Local Body  
USAID: United States Agency for International Development  
WUCU: Wake Up Clean Up

## Acknowledgements

I came to Berkeley purportedly to study how soil microbial systems in the Colorado Rockies respond to a warming climate. I could not have written a dissertation in the environmental social sciences without the support, advice, guidance, and encouragement of my dissertation committee, Dara O'Rourke, Alastair Iles, Raka Ray, John Harte, and Isha Ray, whose patience and in-depth engagement with my work was indispensable. I am also very grateful to Kate O'Neill for all her mentorship and friendship over the years.

I am lucky to have a very smart and patient younger brother. The conversations I have had with my brother Harsha, whose intellectual abilities constantly amaze me and whose understanding of waste and labor politics far exceeds mine, helped develop many of the arguments in this dissertation. Thank you Harsha for helping me think critically about the world we grew up in and continue to inhabit, albeit reluctantly.

I am thankful to my aunt Sumitra, who talked me into coming to Berkeley in the first place, proofread countless grants and applications, and supported me during tough times. Thank you also for sharing your Cedar street studio with me and buying me scones from the cheeseboard.

I would also like to thank:

Nalini Shekar of Hasirudala, the We Care group, and the countless other individuals who I met and interviewed during fieldwork. Thank you all for your time and friendship. Your dedication to what to you do and believe in is inspiring to me.

My ESPM and ERG friends, Danielle, Andy, Freyja, Jennie, Traci, Sibyl, Jen, Michaelangelo, Margot, Lauren, Erica, Esther, and Julie for their feedback on my work, comradery, support, and good times.

My parents for not requiring me to adhere to middle class social norms (i.e. get married).

My grandmother Shilu, whose acerbic wit and astute understanding of human nature I hope I inherited.

My cousin Nija and her family for being my Berkeley/Oakland refuge.

My friends back home in India, especially Sumithra who sheltered me for many months in Bangalore.

And finally, I would have never finished this PhD without the unconditional support and affection of the guardians of my emotional well-being: Rusty the best dog in the world, Sumitra Ranganathan, Madhuri Shekar, Rashmi Sahai, and especially Naïm Darghouth.

# Chapter 1

## Introduction: India's middle classes and the environment

### 1.1. New consumers and the environment

This research examines the environmental politics of the middle classes of India through a study of two parallel communities of practice that advocate for bicycling and sustainable waste management through recycling and composting in the city of Bangalore. Through community engagement, and using qualitative and ethnographic research methods, I describe the emergence of bicycling, recycling, and composting practices among Bangalore's middle classes, evaluating what this tells us about contemporary middle class cultural politics in urban India. I assess how these pro-environmental or sustainable practices affect city spaces and futures, and the livelihoods of relevant sections of the urban poor. Bicycling, recycling, and composting are particularly interesting topics to study the class politics of environmentalism in urban India for two reasons: First they are widely understood to produce positive environmental outcomes and are considered a part of sustainable lifestyles in the Global North. Secondly, and perhaps more importantly, bicycling and waste recovery are quotidian activities among India's poor and working classes. Thus, studying these cases tells us something not just about how pro-environmental practices such as bicycling or waste management are instituted and performed among the middle classes, but also about the strategies middle class actors use to legitimize and appropriate practices that are primarily associated with working class livelihoods, and how this influences city spaces and futures.

In a highly-cited paper titled *The New Consumers: The Influence of Affluence on the Environment*, Myers and Kent (2003) warn us that the emergence of a consumer class in India, China, Brazil, and other emerging economies could wreak havoc on our already degraded ecosystems. As more people in these countries rise out of poverty, they will consume more meat, buy more cars, and use more energy, Myers and Kent say. While China leads the trend with the highest number of new consumers, India is catching up. In 2000, Myers and Kent identified over a 100 million new consumers in India (13 % of the overall population), whose numbers are likely to have increased since. The average carbon footprint of these new consumers is 15 times that of the rest of the country, suggesting that if more households move into this category, India's consumption-driven carbon emissions will grow significantly (Chakravarty and Ramana 2012). Since the publication of Myers and Kent's paper, there have been numerous other reports that echo this warning, reiterating the need to examine the consumption practices of new consumers in the Global South and to evaluate the potential for engendering 'sustainable' consumption practices (The Worldwatch Institute 2004; Lange and Meier 2009).

My dissertation is a response to this call to critically evaluate the potential for, pathways to, and politics of sustainable consumption (and production) in emerging economies. Studying how green practices can be engendered in new middle class lives is of critical importance as the new middle

class lifestyle is framed as the lifestyle to aspire for in modernizing India (Fernandes 2000a). By evaluating how some members of Bangalore's middle classes come to practice and promote so-called sustainable or eco-friendly practices like bicycling, the segregation of waste at source, waste reduction, recycling, and composting, I investigate what motivates middle class individuals to take up pro-environmental activities and the social processes by which these practices are both contested and stabilized. My dissertation provides actionable insights for activists, policy-makers, and businesses interested in engendering sustainable behaviors, which I elaborate on in the concluding chapter of this work.

However, I go beyond an examination of how and why these practices are engendered to critically evaluate the politics of bicycling and zero waste management in Bangalore. I use these cases to politicize the link between "sustainable" behaviors and class identity and privilege. Critical analyses of sustainable consumption and pro-environmental behaviors are necessary because, as I show in Chapters 2 and 3, the language of behavior change can *depoliticize* the privilege that allows one to consume at high rates and then voluntarily cut-down consumption or waste production in response to environmental awareness. When scholarly work limits its focus to understanding how to promote sustainable consumption or behavior change among the elite and the middle classes, it accepts the social, political, and cultural conditions that produce resource-intensive consumption in the first place. It can also fail to consider the role of the state and the political economy in enabling some individuals to consume at high rates, even while others remain in poverty (Princen, Maniates, and Conca 2002). This is particularly important in the Indian context as economic liberalization has both materially and discursively empowered the urban elites and middle classes, who now have significantly higher incomes and consumption rates than the majority of India's population (Baviskar and Ray 2011). By placing the link between sustainable behavior and class at the center of my analysis, and by analyzing bicycling and waste management as *classed* practices, my dissertation contributes to the literature on democratic, cultural, and environmental politics in the Indian city.

The actions that the middle classes carry out in the name of the environment have consequences not just for the global climate or local ecosystems, but also for the groups that the middle classes reluctantly share urban space with. That middle class environmental movements in India have had a distinctly illiberal quality makes them all the more important to study. Scholarly work on middle class environmental engagement in post-liberalization India has emphasized how middle class civic activists strategically deploy discourses of ecological protection and public interest to consolidate their claims to the urban commons (Baviskar 2011; Baviskar 2003; Ghertner 2012; Mawdsley 2004; Mawdsley 2009). Here invoking the "environment" helps validate narrow class-based preferences and interests as matters of city-wide and universal import. In some instances, particularly in the cities of Delhi (Bhan 2009; Baviskar 2003), Chennai (Arabindoo 2005) and Mumbai (Anjaria 2009) middle class civic activists have, through their "environmental activism", advocated for the eviction of the poor from cities, arguing that the poor and their activities are the source of squalor, nuisance, and pollution. In doing so, the middle classes deflect attention from

their own intensive consumption practices, which produce much of the waste and pollution in the first place.<sup>1</sup>

My work extends this scholarship on middle class environmental politics in two critical ways. First, through an ethnographic study of middle class efforts at changing transportation and waste disposal behavior, I examine when, why, and how the middle classes relate their own daily habits to environmental degradation, and whether an awareness of the linkages between personal consumption and urban environmental problems results in a different set of outcomes (social, environmental, and political) than the ones documented in the literature. Secondly, my work goes beyond an examination of the manner in which environmental discourses are used to disfranchise the poor, to also look for moments of coalition building and solidarity between members of the middle classes and the urban poor. These solidarity connections are a departure from what has been documented previously in Indian cities by other scholars, suggesting that there exist diverse forms of environmentalism among the middle classes.

This introductory chapter provides an overview of the entire dissertation. I began by outlining the problems that motivate this dissertation. Next, I provide context for this work by unpacking the terms *middle class* and *new middle class* in urban India, by tracing the history and contemporary use of this category. I locate my study in space and time by introducing my site of inquiry, the city of Bangalore in Karnataka, India. The rest of the chapter is devoted to a brief preview of the individual papers organized around the three main conceptual frames that animate this dissertation (i) social practice theory (ii) the normative theory of ecological citizenship, and (iii) the concept of bourgeois environmentalism. I synthesize these individual contributions to make the following arguments that I expand on in the conclusion to this dissertation:

1. The practice of sustainable behaviors is directly enabled by privilege: The middle classes deploy their accumulated economic cultural and social capital to change infrastructures and social norms, and use a diversity of political strategies to recruit state support for their practices. This is in stark contrast with the “quotidian” sustainability practiced by members of the poor and working classes, for whom bicycling, and waste recovery and resale are livelihood strategies.
2. The middle classes invoke environmental discourses to make practices that are actively associated with thrift and deprivation “appropriate” for middle class status, creating *defensive distinctions* that render them both elite and ethical simultaneously. In doing so, they distinguish their bicycling and waste management practices from the practices of the poor. This *othering* of the poor is problematic as it reproduces enduring social inequalities along class (and caste) lines, and limits the potential of these middle class sub-cultures to be inclusive to other social groups.

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<sup>1</sup> Consumption-based analyses of greenhouse gas emissions support the assessment that these new consuming middle classes are largely responsible for waste and pollution. For instance Myers and Kent estimate that new consumers are responsible for 85 % of personal transport purchases and have CO<sub>2</sub> emissions 15 times greater than the rest of India, attributable to their high per-capita energy consumption (Myers and Kent 2004). Other studies have also produced estimates of emission disparities among different expenditure classes in India. Parikh et al estimate that in 2003-04, the emissions produced by the top 10% of urban India (roughly 30 million people) were about 15 times the bottom 10% of urban India, and about 27 times the emissions of the bottom 10% of rural India (Parikh et al. 2009).

3. However, under certain conditions, particularly in the case of waste management, *pragmatic partnerships* and coalitions can be built between middle class actors and waste workers, thereby opening up spaces for the inclusion of informal sector waste workers in decentralized waste management systems.

Taken together, my dissertation posits that the advent of bicycling and sustainable waste management behaviors among the middle classes both reproduces and occasionally transforms how the middle classes relate to their own identities, to city spaces, and to members of the urban poor in the city. In other words, these so-called sustainability practices both reproduce and transform the cultural, environmental, and relational class politics of Bangalore's middle classes.

## 1.2. Who are the middle classes?

Who are the middle classes of India? While this question has been a subject of substantial scholarly and policy debate fractured along disciplinary and ideological lines, sustainability scholarship has hitherto failed to problematize the social composition of the “new consumers” of India. This in turn has created substantial confusion on the actual number of middle class consumers in India and the environmental impact of their consumption practices. Estimates for the number of middle classes in India can range anywhere from 50 million to 250 or even 400 million (Sridharan 2004) and differ based on the criteria used to define who belongs to the middle class. In this section, I present a synthesized overview on this topic and then explain how I define the terms *middle class* and *new middle class* in this dissertation. I also argue that the middle classes are important subjects of study for sustainability research not just because of their relatively high ecological footprints (Myers and Kent 2003; Parikh et al. 2009; Chakravarty and Ramana 2012), but also because this resource-intensive and consumption-oriented middle class lifestyle is held up as the model that the rest of India, i.e. its poor, should aspire to and strive for.

Economists have traditionally defined the middle class in the developed world as an income bracket that encompasses the median income and some symmetric bounds around it, such as the middle 1/3rd of income earners or the 25<sup>th</sup> -75<sup>th</sup> percentile of income earners. However, the criteria for who constitutes the middle class is often chosen arbitrarily and on an ad-hoc basis (Ravallion 2010). The ambiguity around who is middle class is further exacerbated in the Global South and emerging economy context, as a developed-world definition often has limited salience in these settings (Ravallion 2010).<sup>2</sup> Consequently, development banks and global consultancies have come up with a range of absolute measures based on income and consumption patterns to delineate an emerging middle class in the Global South.

Estimates of the number of middle classes differ based on the measure used to define this group and on who is using this measure. For example, the Asian Development Bank (ADB) in a working paper from 2010 defines the Asian middle classes as households earning between \$2-\$20

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<sup>2</sup> So even though 1.2 billion new middle classes are said to have emerged from the Global South since the early 1990s, only 100 million of those would not count as poor in the developed world (Ravallion 2010).

dollars/day (in 2005 PPP \$ equivalents), estimating that there are 274 million middle class individuals in India (Asian Development Bank 2013). Ravallion (2010), using the definition that the developing world’s middle class are those who are above the median poverty line of developing countries but below the poverty line of rich countries (which is equivalent to those who live on between \$2 and \$13 dollars a day), identifies 263.7 million middle class individuals in India. However, in both these calculations, a majority of those who count as middle class earn between \$2 and \$4 a day (224 out of the 274 million in the ADB calculations), suggesting that most of the middle classes are precariously close to poverty. Nancy Birdsall, in a much-discussed working paper published in 2010, suggested that India has no middle class at all. Using the definition that the middle class in the developing world ought to only include people with an income of above \$10 day, after excluding the top 5% of that country, she found that everyone earning more than \$10 a day in India was also in the top 5% of income earners (Times of India 2010; Birdsall and Meyer 2012).

Marketers and consultants selling the images of an “India Shining” with a booming consumer economy have a slightly different story to tell. Looking to emphasize how the policies of economic liberalization introduced in India in the late 1980s have reduced poverty while expanding the ranks of the middle classes, they tell a story of a burgeoning consumer class. For instance, in a report called the “Great Indian Middle Class”, the National Council for Applied Economic Research (NCAER), anoint the middle classes with aspirational names like “Seekers”, “Strivers” and “Aspirers” (NCAER 2007). Here, the middle classes are a consumer bracket that will expand as India’s economy grows, and whose consumption will bring prosperity not just to the nation but also to foreign investors and retailers. Keeping with this theme, a 2007 McKinsey report called the “Bird of Gold” slightly modified the NCAER categories and predicted the future size of India’s consuming middle classes as follows (Ablett et al. 2007).

**Table 1.1 Consumer categories and forecasts**

Consumer category	Annual household Income (In INR)*** (real 2000)	% of population in 1985 (actual)	% of population in 2005 (estimated)	% of population in 2025 **** (forecast)
Deprived	< 90,000	93	54	22
Aspirers	90,000-200,000	6	41	36
Seekers*	200,000-500,000	1	4	32
Strivers*	500,000- 1,000,000	0	1	9
Globals**	> 1,000,000	0	0	2
Total population		755 million	1107 million	1429 million

\*Middle Class (comprising less than 5 % of the total population of India in 2005). The daily per capita income for the Seekers works out to \$ 8-\$ 20 per capita per day and for the Strivers to \$ 20-\$ 40 per capita per day.

\*\* McKinsey combined four of the NCAER categories, the Near Rich, Clear Rich, Sheer Rich, and Super Rich into one category called the Globals.

\*\*\*45.7 INR= 1 US Dollar (Real 2000); 8.5 INR= 1 US Dollar (Real 2000) adjusted for Purchasing Power Parity

As Ghertner and others have pointed out, the NCAER and McKinsey reports have four to seven categories for the middle classes and rich, and only a single one for the poor (i.e. deprived), downplaying the fact that the majority of India's population, even in 2005, is still in poverty. By simulating the future size of the middle classes, they aim to "conjure away the poor" (Ghertner 2010, 33) and generate excitement about the huge consumer market in India. Many scholars and economists, including those at the World Bank, have questioned the numbers produced by NCAER, stating that they inflate the current and future size of the Indian middle classes. Meyer and Birdsall, in a 2012 technical note, use a different dataset to calculate the size of the middle classes, comparing it to estimates produced by NCAER (Birdsall and Meyer 2012). They find that while NCAER calculations identified 153 million individuals (12.8 % of total population) in 2009/10 as middle class, their estimates placed the number closer to 70 million (5.88 % population share).

While there is no clear consensus on the size or scope of the middle classes among economists, other scholars have argued that the middle classes cannot just be defined by their incomes or consuming power, but that other sociological criteria like occupation, education levels, linguistic, caste and religious backgrounds, and regional affiliations need to be accounted for. E. Sridharan argues that the occupational and sectoral composition of the middle classes are politically relevant, as they determine their support for or opposition to the policies of liberalization (Sridharan 2004). He uses income data from NCAER Market Information Survey of Households (MISH 1998-99), to differentiate the middle class into three categories - elite middle class (which consists of high income households that earn above INR 140,000 per year), the expanded middle classes (consisting of the elite middle classes plus upper-middle income households who earn between INR 105,001 and INR 140,000) and the broadest middle classes which consists of the above two groups (elite + expanded) and middle-income households who earn between INR 70,000- 105,001. Applying these definitions he finds that the broadest middle class is only 26% of the population in 1998-99 (248 million), while the elite middle class are as few as 55 million people. He then layers the income data with occupation, following Betellie's argument that typical middle class occupations are non-manual (Beteille 2001). Using that definition, he finds that among the broadest middle classes, only 122 million would qualify as middle class using this income plus type of occupation criteria (Sridharan 2004). Fernandes and Heller add that in addition to income and occupation, education and English-language skills are important markers of middle class status (Fernandes and Heller 2006).

Some of the confusion around who counts as middle class in India can be attributed to the uneven historiography on middle class identity in India (Baviskar and Ray 2011). One branch of the middle classes is thought to have emerged during colonial occupation, when the British government promoted the development of a professional class involved in civil administration, law, and other service sector occupations (Jaffrelot and van der Veer 2008). This colonial, white-collar, salaried middle class is presumed to have existed alongside a petty bourgeois of small traders and artisans. Post-independence, the development of a managerial middle class was directly aided by the state through a rapid expansion of the higher education system, creating a large body of technical and managerial experts to operate state and public sector enterprises (Fernandes 2000b; Fernandes



2009; Upadhyaya and Vasavi 2008). This created a middle class that was actively dependent on the state for its daily bread and butter.

The liberalization of the Indian economy, which began in the late 1980s and continues to date, is associated with the emergence of the so-called “new” middle classes. The new middle classes are distinguished from the “old” state-supported middle classes and the petty bourgeois mainly by higher levels of consumption and a governing association with the policies of liberalization (Fernandes 2009). That is, the new middle classes are not new in terms of social composition or cultural modes, but rather in how this group has tried to refashion middle class identity through the language of economic liberalization and the consumption it facilitates.

Critical assessments of the middle class composition have posited the argument that the ambiguity around who counts as middle class is not just a point of scholarly debate, but rather has productive value in itself (Baviskar and Ray 2011; Fernandes and Heller 2006). In this strand of constructivist scholarship, the appropriate question to ask is not who the middle classes are, but rather, what is “middle class”? Problematizing the very idea of a social class that lies in the “middle”, Baviskar and Ray instead argue that middle class is more a social and ideological construct, than a sociological or economic category. “Middle class is what the ruling class of India prefers to call itself” (Baviskar and Ray 2011, 7; citing the Indian political scientist Yogendra Yadav). By leaving the bounds of the middle classes ambiguous, the dominant fractions of Indian society are able to elevate narrow class-based interests as matters of universal import. By adopting a middle class identity, the elite, for instance, are able to call for policies and spatial arrangements that predominantly benefit only themselves, while simultaneously creating a public discourse that these moves will benefit the “average” Indian. It is through this strategy of successfully straddling an elite and everyman identity that the middle classes are able to hoard and reproduce their accumulated privilege, while still claiming to be in favor of economic development that benefits everyone, including the poor. Leaving the terms of middle class ambiguous also means individuals from both low and high income classes self-identify as middle class (D. Kapur and Vaishnav 2014). This ambiguity around who counts as middle class is not just a feature of Indian society, but is present in developed countries too.

Given the difficulties in identifying the middle classes through economic or sociological criteria, recent scholarship has instead looked to characterize the middle classes through their daily practices, both consumptive and political. Defining the middle classes as a “class-in-practice”, Fernandes and Heller state “that the contours of the middle classes can be grasped as a class-in-practice, that is as a class defined by its politics and the everyday practices through which it reproduces its privileged position” (Fernandes and Heller 2006, 497). Baviskar and Ray further refine this approach saying “theory has been used as a blunt instrument to hammer home pronouncements about Nationalism, Modernity, and the Middle Class, without actually focusing on the actual practices of being and becoming middle class, practices that exceed or uneasily fit the grand narratives of social theory” (Baviskar and Ray 2011, 9–10). A focus on the actual practices that are identified with being middle class shows us that there exists no singular or hegemonic middle class identity, but rather several versions. The middle class is internally differentiated, or in other words, there are many middle classes.

This practice-based analysis is largely drawn from the French Sociologist Pierre Bourdieu who develops the concepts of habitus and field to understand how class structures are reproduced by social groups (Bourdieu 1984). Bourdieu views the habitus as a “systems of dispositions, characteristic of the different classes and class fractions” (Bourdieu 1984, 541). Habitus exists in the intimate context of the home, or increasingly in India, the school or the private tutor, where individuals are socialized into certain ways of being and interacting with the world, and acquire skills and cultural competencies. The field is the setting where these skills and dispositions are deployed and strengthened. Individuals thus acquire cultural capital, which along with economic and social capital becomes the structural basis of class power. As many scholars have noted, the middle classes have developed various methods of accumulating cultural capital, through caste endogamy and attaining English language skills (Baviskar and Ray 2011; Fernandes and Heller 2006; Upadhyaya and Vasavi 2008; Wilhite 2008). Cultural, economic and social capital together then become the means for creating and maintaining social distinction. Distinction is key to middle class identity. Because the definition of middle class is so ambiguous, those who want to claim this identity need to actively distinguish themselves from the lower orders, both on the street and within the home (Baviskar and Ray 2011). These practices of distinction are dependent both on long-standing forms of caste, religion, and linguistic differences, and on new forms of consumption (Fernandes and Heller 2006).

Linking this practice-based conception of the middle classes to what Baviskar and Ray, and others have written about the public discourses circulated about and by the middle class, we can see how distinction and belonging together constitute middle class identity in modern India. That is, while the middle class (or those who aspire to be middle class) seek to distinguish themselves from lower orders through their social practices, their political discourses claim that they can speak for the entire nation, the average man, and in public interest (Baviskar and Ray 2011). It is this balancing act of “elite” and “everyman” that is a fundamental feature of middle class cultural and identity politics, and which, as I show in this dissertation, underlies their environmental politics too.

During my dissertation work, I encountered a diversity of “middle class” actors who could be categorized in variously overlapping ways. Many of them would fall under the upper middle class or high income category: their families owned property in prime locations, they had access to multiple cars, and some even came from “old” money. A subset among these people were part of Bangalore’s Information Technology-employed “new” middle classes, many of whom had obtained advanced qualifications from elite universities (Upadhyaya and Vasavi 2008). I also interacted with a few retired government officials and public sector employees who would belong to the “old” state-dependent middle class. Some individuals were formerly Non Resident Indians who had decided to come back to India from the US, Europe and the Middle East to raise their young families or to retire. A small sub-section were part of what Ranganathan calls the peripheralized or vernacular middle classes.<sup>3</sup> However, all my respondents self-identified as

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<sup>3</sup> Ranganathan identifies the peripheralized or vernacular middle classes as the more numerous members of Bangalore’s middle classes (compared to the smaller number of English-speaking and securely propertied new middle classes) who are “...rooted in regional cultures and languages, educated, and crucially, *property owning* (though not securely so)” (Ranganathan 2014, 5).

middle class, lived in neighborhoods that were identifiable as middle class neighborhoods, and within these spaces carried out consumption practices and political activities that reaffirmed their middle class identities.

In this dissertation I preferentially use the term “new” middle classes<sup>4</sup> as my interviewees were, to the most extent, the dominant fraction of Bangalore’s middle classes. They were securely propertied and had access to plenty of cultural, social, and economic capital. For example, all of them had received some level of higher education and most came from homes where at least one of their parents had gone to university. Most were employed (or had a family member who was employed) in industrial sectors that had benefited from the liberalization of the Indian economy, such as the Information Technology sector. Their consumption practices were more akin to the consumption patterns of households in the West than in the rest of India. They owned a plethora of appliances ranging from washing machines to microwaves, but still relied on household help. Most of them owned at least one car or motorbike. They spoke English comfortably, watched Hollywood and Bollywood moves, ate global cuisines, and kept up with global trends. They belonged to a transnational elite and many of them had traveled abroad either for work or leisure. Most importantly, they had access to ways of influencing the state, either through local neighborhood associations or through other types of organizing and lobbying.

In my research, I follow Fernandes and Heller to conceptualize the new middle classes as a class-in-practice, and study the emergence of sustainable or eco-friendly practices among this dominant class group in urban India (Fernandes and Heller 2006). As I have emphasized, studying the environmental politics of the new middle classes is important not just because of their relatively high consumption levels, but because of their discursive dominance in liberalizing India. The image of a new middle class person is held up as the future of India: this is what everyone should aspire to be. Their emergence is hailed as a sign of the successes of economic liberalization. If that is indeed the case, and if the new middle class lifestyle is a resource-intensive lifestyle, then this is bad news for the global environment. New middle class environmental politics is also important to study as the state has privileged their voices in urban and economic planning through the creation of elite participatory platforms (Ellis 2012; Ghertner 2011b; Ghosh 2005). Thus what the new middle classes think about the environment, and how this affects or does not affect their consumption and civic practices, is critical to both local and global ecologies.

### 1.3. Bangalore: From Garden City to Garbage City

Bangalore or Bengaluru<sup>5</sup>, a city of 8.4 million in South India and the administrative and economic capital of the State of Karnataka, goes by many names. Bangalore’s monikers include Garden City, Silicon Valley of India, Knowledge City, Hi-Tech City, and most recently, Garbage City. Each of these names reveal particular dimensions of the city’s past, both real and imagined, and fears and

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<sup>4</sup> In this text I use middle class and new middle class interchangeably, but always to refer to this dominant fraction of Bangalore’s middle classes.

<sup>5</sup> The official name of the city is Bengaluru, but I retain the anglicized version of the city’s name in this work.

aspirations for its future. Janaki Nair in a history of Bangalore chronicles the journey of this 16th century military-trading outpost to its current day status as India's third most populous city (Nair 2005). Along this journey, Bangalore served as a cantonment for the British military in colonial India, housed research institutes and public-sector enterprises in newly-independent India, and continues to be home to several small-scale industries, and since the 1990s has become known as the hub of India's Information Technology sector.

In independent India, Bangalore has gained the reputation of being a "middle class" city or a "pensioners paradise" of tree-lined boulevards and well-planned neighborhoods filled with respectable middle class folk (Goldman 2011; Nair 2005; Pani, Radhakrishna, and Bhat 2010; Vanka 2014). This narrative of Bangalore's past is hard to escape. Media articles that rue the loss of the garden city of yore and the mushrooming civic organizations dedicated to preserving and restoring Bangalore's green glory, suggest that some middle class Bangaloreans are yet to make peace with the fact that the Bangalore of today is a bustling and growing metropolis. Bangalore's garden city story also hides the fact that Bangalore has long been a site of industrial production, housing garment industries in the early 20th century and then public sector enterprises like Hindustan Aeronautics Limited after independence (Nair 2005). Similarly, Bangalore at each stage of its urban evolution has had to encounter and cope with that *other* of order, purity, and salubrity – namely, garbage. While Bangalore for a long time was able to successfully hide industrial production and its externalities behind a green veneer, the liberalization of the Indian economy in the late 1980s has overwhelmed the capacities of both Bangalore's ecosystems and its imaginaries to make invisible its dirt, pollution, congestion, and conflict. Bangalore in 2010 has "mega-city" problems at the same scale as cities like Delhi and Mumbai (Goldman 2011).

What was economic liberalization, and what changes did it bring about in Bangalore? In the mid-1980s, India embarked upon a series of financial reforms that gradually and haltingly eliminated licensing for many industrial operations, reduced corporate taxes, began privatization of public sector entities, and opened the country to foreign direct investment (Upadhyaya and Vasavi 2008). The socialist policies of the post-independence Indian government gave way to a partially market-based economy. The liberalization of the Indian economy came at a time when economic globalization was gathering pace and India caught the wave of a wider transformation in business and industry. New infrastructure in the form of information and communication technologies aided the geographic fragmentation of the production process (Castells 2000). During the 1990s, companies in the industrial West turned to off-shoring in search of cheap, skilled labor capable of communicating in English.

Bangalore in particular was well-positioned to benefit from the emergence of globalizing production chains and the Information Technology industry is a case in point (Upadhyaya 2008; Upadhyaya and Vasavi 2008). The post-independence policies of the Indian Government emphasized modernization through economic and industrial progress. This drove a rapid expansion of the higher education system, which in turn created a large body of technical and managerial experts to operate state and public sector enterprises. Many of these public sector enterprises were situated in Bangalore. The emergence of a private sector soon began to attract the best talent from this skilled pool of workers. Both multi-national companies and home-grown technology firms like

Infosys and Wipro set up shop in Bangalore. Incomes went up and opportunities abounded for entrepreneurial members of India's educational and cultural elite (Nair 2005). Occupations diversified, especially in the service sector. As markets became increasingly globalized, foreign corporations entered the fray and new consumer goods arrived in the Indian market. There were more consumption options and competition drove prices down. Soon, millions of people living in urban India had disposable incomes to partake in the consumption of commodities that were previously not available to them at affordable prices.

Bangalore is home to somewhere between 200,000 - 500,000 Information Technology and other professionalized workers who constitute the most visible portion of India's new middle classes (BBC News 2013; Upadhyaya 2009). The new middle classes of Bangalore work in multinational and Indian technology corporations, investment banks, media, healthcare, and other service sectors. Their lives and lifestyles are "global", from their working hours (which are often in sync with US and UK time zones), to the kind of clothes they wear, the food they eat, where they live, and what they buy. Symbols of new middle class lifestyles are abundantly visible in Bangalore's swanky malls, chic coffee shops, gated communities, and car-clogged roads. The city has transformed dramatically in the past twenty years. Bangalore's population has doubled from 2001 to 2011, and city limits have expanded to subsume surrounding villages. Old neighborhoods have changed and new ones have sprung up in the city's peripheries (Goldman 2011; Ranganathan 2014). Bangalore is also trying to become "world-class", building a metro system, widening roads, and constructing signal-free corridors (Benjamin 2007; Nair 2005). "World-class" city projects are driven by the state and corporate elites, often at the expense of other social groups, particularly the poor and those who live in informal settlements. These rapid changes in the socio-economic landscape of labor, housing, production, and consumption have in turn severely strained Bangalore's waste, water, and transportation infrastructure, resulting in frequent traffic jams, overflowing garbage dumps, and other urban ills. The city has suffered repeated "garbage crises" that have garnered both national and international attention, leading some to call Bangalore a Garbage City (Harris 2012; Sachs 2014). Many of Bangalore's urban poor, working, and lower middle classes have suffered displacement and dispossession, and continue to struggle for rights to land, livelihoods and basic services like toilets, piped water supply, and electricity (Benjamin 2000; Goldman 2011)

It is in this context of intensifying consumption, changing urban landscapes, and rising waste production that my research investigates the emergence of an interest in environmentally-friendly practices among Bangalore's new middle classes, demonstrated by the presence of communities of city bicyclists and neighborhood waste management programs in the city. These practices, albeit disparate and sometimes compelled by other motivations like personal health (in the cycling case), public health, sanitation, and aesthetics (in the waste case) or city stewardship (in both the cycling and waste case), have one thing in common - they are often framed as environmentally-friendly and promoted as a way in which the eco-conscious new middle class individual can contribute to a better city and a better planet. This makes them pertinent to a study of middle-class environmentalism, (sustainable) consumption, and environmental politics in the city.

#### 1.4. Research questions and theoretical approach

Sustainability scholarship is increasingly focusing on individual behavior change as a crucial component of engendering more sustainable societies. Practices like bicycling to work, recycling and reusing goods, eating organic food, or buying used clothes are heralded as both integral to, and generative of larger societal transformations. Studying attitudes, social norms, and infrastructures, scholars have begun to identify the individual and societal conditions that can help engender such practices. However, less attention has been paid to the situated class politics of greening lifestyles, which is especially important as most green lifestyle practices are also the very quotidian acts that sustain and support the livelihoods of the poor, especially in developing countries. Green consumption, and more broadly, greening the city, is emerging as an interesting site to investigate class politics and relations. My dissertation politicizes the links between sustainable or green consumption and class by investigating the environmental politics of urban India's dominant class fraction, its new middle classes.

My dissertation was conceived in response to a complex question: How do the middle classes of Bangalore, India, think about and act on the environment and to what ends? This question was motivated both by the “new consumers of emerging economies are bad news for the global environment” rhetoric, and by the relative dearth of ethnographic studies of middle class environmental movements in urban India. I was particularly looking to study movements that spanned the often (falsely) separated spheres of consumption and citizenship, of home and street, to examine if, when, and how the middle classes of Bangalore, India, changed their daily consumption practices in response to environmental challenges and whether this translated to new forms of civic and political engagement.

To address this overarching question, I identified two cases of environmental behaviors among Bangalore's middle classes: bicycling and waste management. These cases were particularly appropriate for my questions as they encompassed both private actions taken up by individuals in their homes, and collective endeavors that occurred in the provincial and public spheres. Furthermore, they constituted *practiced* environmentalisms, requiring changes in the daily habits and routines of individuals and families. This meant that they were probably not taken up casually or lightly, but instead required a significant level of investment of time, resources, and energy. These cases were also interesting to me as bicycling and waste recovery practices are ubiquitous in India. Bicycling and recycling are quotidian activities of the poor, supporting working class livelihoods. As I identified these dimensions of my two cases, my research question transformed.

My dissertation asks and answers the following question: how do the middle classes relate to their own identities, to the city spaces, and to poor others through public and private practices that have consequences for the environment and for other social groups in the city? To answer this question, I apply a diversity of theoretical lenses, drawing from political science, sociology, geography, and political ecology. The empirical material of my dissertation is presented in three chapters. While each paper applies a different central theoretical lens (Chapter 2- Social Practice Theory, Chapter 3- Ecological Citizenship, and Chapter 4- Bourgeois Environmentalism), and uses a particular case to animate theory (Chapter 2- Bicycling, Chapters 3 and 4- Zero or Sustainable Waste

Management), the theories I engage with have valence to explain particular dynamics in each of these cases. Similarly, the cases in turn add to each of these theories and extend their conceptual limits in significant ways - a point that is emphasized in each chapter and summarized in the conclusion. In the next section, I provide a brief overview of the three main concepts that my dissertation engages with, illuminating their relevance to each of my cases.

#### 1.4.1. Social practice theory

The first analytical lens that my work uses to study environmental behaviors among Bangalore’s new middle classes is social practice theory. Social practice theory (SPT) sees social order as rooted in everyday practices, where a “practice is a routinized type of behavior which consists of several elements, interconnected to one other, forms of bodily activities, forms of mental activities, things and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge” (Reckwitz 2002, 249). In recent years, researchers have increasingly applied this concept to study sustainable consumption practices. By placing the practice at the center of analysis, it permits researchers to examine a range of factors, such as individual attitudes and values, knowledge, social norms and conventions, objects and materials, and infrastructure, among others, that help stabilize a routinized practice in specific socio-cultural contexts. The theory views individuals as “practitioners” or carriers of a practice.

**Figure 1.1. Social practice theory**



Compared to some theories of consumption and behavior that privilege either individual choice and agency, or social structures, SPT offers a comprehensive analytical frame that allows one to examine the recursive and dynamic relationship between agency and structure. By recognizing the co-shaping between individual agency and social structures, practice theories can help devise policy options that address both individual attitudes and values, and structural variables simultaneously (Røpke 2009; Spaargaren 2011).

In Chapter 2, I demonstrate how social practice theory can be applied to understand how bicycling practices have re-emerged among middle class Bangaloreans. Following Hargreaves (2011), I apply “Shove and Pantzar’s (2005) empirically useful characterization of social practices as ‘assemblages of images (meanings, symbols), stuff (materials, technology), and skills (forms of competence, procedures)’ that are dynamically integrated by skilled practitioners through regular and repeated performance” (Hargreaves 2011, 83 following Shove and Pantzar 2005). Social practice theory can similarly be used to analyze the emergence and stabilization of zero waste management practices, i.e. the segregation of waste at source, recycling, and composting, among Bangalore’s middle classes in their homes and neighborhoods.

As in the bicycling case, waste management practitioners draw on images (i.e. discourses, meanings, and symbols) of global environmental protection, caring for city spaces, responsibility, public interest, and citizenship to elevate their waste management practices, and distinguish them from the recycling practiced by members of the urban poor. They also use technical language and scientific concepts to stabilize their practices as suitably modern and appropriate for a self-identified “Hi-Tech” city. For example, middle class waste management practitioners are often found discussing the relative merits of aerobic vs. anaerobic composting, or the difficulties of recycling multi-layer packaging. Some middle class practitioners also frame waste as having aesthetic value. Bags and accessories made out of reclaimed waste are often carried around by practitioners and waste management equipment (like composting pots, bins, and carts) are decorated in bright colors. This aesthetization of waste also helps distance it from its dirty or impure connotations, instead communicating its value as a resource.

Waste management practices also depend on various types of stuff (materials, technology) and require practitioners to develop skills (forms of competence, procedures). The “stuff” of recycling and composting includes bins of various colors stored in middle class homes, where segregated waste is deposited either by middle class householders themselves or by their domestic help. There are also home-based composting solutions like the Daily Dump, which is composed of a set of ventilated earthen pots supplemented with a composting medium. Moving outside the home, waste management systems in apartment complexes and neighborhoods require carts and vehicles to collect and transport waste from homes to sorting centers. Sorted waste is then processed using various technologies: Wet-waste can be composted on site using bio-digesters or windrow composting, or sent to landfills for disposal. Dry waste is sorted into different categories and diverted to various recycling streams. In addition to bins, carts, and machines, flyers detailing instructions for segregation, and the gloves and uniforms worn by waste workers, are some of the other “stuff” used in these waste management practices. However in contrast to bicycling practices,



the stuff used to carry out waste management practices is often handled not only by the middle class waste management practitioner or advocate, but also by his or her domestic help. This dynamic complicates the model of a social practice offered by social practice theory as it indicates that *other agents*, such as domestic help and paid waste workers, play critical roles in executing and stabilizing the practice of zero waste management among the middle classes.

In each of these stages of zero waste management, from segregation-at-source, to transportation, and finally the processing of materials, middle classes practitioners and their employees need a set of skills, knowledge, and competencies to carry out these activities. The first set of skills, required by all households and the staff they employ, is the ability to distinguish between different types of waste and categorize them based on their bio-physical properties. Waste can be categorized as wet, dry, recyclable, non-recyclable, hazardous, sanitary, or into more specific materially-based categories like paper, plastic, metal, glass, etc. The leaders of neighborhood-based waste management systems have to be knowledgeable about the benefits and drawbacks of various wet-waste processing methods. Similarly, they need to be able to choose between various vendors for dry waste collection, which requires knowledge of the “going” rate for different types of recyclables. Leaders also need to develop competence in the day-to-day operations of a waste collection program. Here in addition to technical or scientific knowledge, leaders must develop skills in social management, which includes the ability to understand what might motivate individuals and families to change their waste disposal practices, how to incentivize and censure their neighbors, and how to liaise with waste workers and service providers.

Similar to the bicycling case, online and spatial communities play a critical role in incubating waste management practices. They enable the dissemination of knowledge, “best practices”, and skills that replicate successful waste management systems in new neighborhoods. Communities become sites of shared learning, solidarity, and experimentation, as well as policing individual members through the creation and maintenance of social norms and conventions. I describe the role of communities in spreading waste management practices in detail in Chapters 3.

#### 1.4.2. The normative theory of ecological citizenship

The second concept that I engage with in my dissertation is Andrew Dobson’s normative theory of ecological citizenship. Ecological citizenship encompasses activities taken up in the name of the common good that repair or reduce environmental harm. Ecological citizenship theorists see individual acts like recycling, composting, or buying organic food as constituting acts of citizenship as they contribute to the public good, albeit through private action (Dobson 2003). Dobson developed the theory of ecological citizenship in response to older formulations that see citizenship as operating purely in the public sphere, within political territories, and consisting mostly of rights and responsibilities. He conceptualizes the obligations of an “ecological citizen” as based on a post-cosmopolitan ethos of a “community of common humanity”, where there exists a “historic obligation” produced by activities, grounded in “global actualities rather than transcendent principles... (and)...rooted in identifiable relations of actual harm” (Dobson 2003). Thus, ecological citizenship is a type of non-reciprocal and non-territorial post-cosmopolitan

citizenship that occurs both in the private and public spheres of life and has an explicit identification with the virtue of contributing to the common good. The theory asserts that ecological debtors have an obligation to address the environmental impacts of their actions. For example, the greenhouse gas emissions produced by car owners in the USA (ecological debtors) could result in rising sea levels in the Maldives (whose people are characterized as ecological creditors), constituting identifiable relations of actual harm. According to the premise of ecological citizenship, American car owners have an obligation to take up public or private actions that ameliorate this harm, which could include the use of vehicles that produce fewer emissions, not driving at all, lobbying for climate change legislation, supporting emission reduction goals, or even helping the people of Maldives migrate to safer areas.

In Chapter 3, I apply the concept of ecological citizenship to the case of home and neighborhood waste management to show that while the theory can be used to analyze and highlight voluntary involvement by socio-economically privileged individuals, it fails to recognize the contributions of actors, who through their livelihood practices, play a pivotal role in producing the systems that enable pro-environmental behaviors among the elite. In Chapter 2 I briefly outline how middle class practitioners frame bicycling practices as acts of environmental stewardship. Here again, middle class bicyclists actively frame their bicycling practices as ameliorating global and local environmental problems. Contrasting bicycling with car use, some bicyclists emphasize how the adoption of a transportation mode that does not require fuel and consequently does not produce greenhouse gas emissions or other pollutants, makes this a way of repairing or reducing the environmental harm generated by middle class consumption. However, in contrast to the waste management case, where environmental logics are invoked and circulated as the primary motivation for zero waste management, in bicycling communities environmental logics are often subordinated to discourses on the fitness, monetary, and health benefits of bicycling. Here Soper's formulation of alternative hedonisms has more explanatory valence as it recognizes that pro-environmental practices are adopted for both self and other-oriented reasons, and that various motivations can co-exist and reinforce each other (Soper 2007). It also suggests that the spheres of citizenship and consumption are not separate, but mutually constituted (Soper and Trentmann 2008).

In Chapter 2, I also develop the idea of "networked ecological citizenships". My concept is in line with Kennedy (2011), who examined ecological citizenship in the context of neighborhood networks to make the argument that when ecological citizens engage in a network, conditions for environmental politics are engendered (Kennedy 2011). By tracing an informal neighborhood network of households committed to reducing their consumption, Kennedy finds that participation in a network has multiple benefits that make individuals more likely to persist with changing (or reducing) consumption. This includes developing a sense of belonging, sharing knowledge and resources, and providing mutual reinforcement. Moreover, ecological citizens who belong to a network have the ability to bring about cultural change, by changing mainstream norms through their collective conspicuous (non) consumption and by actively shaping their neighborhood contexts through various voluntary actions (Kennedy 2011). That is, behavior change goes from being a discussion of individual contributions to collective politics.

My observations substantiate Kennedy's findings. In both the bicycling and waste management cases, networks and communities play a critical role in modifying the structural constraints that prohibit bicycling and waste management practices, serve as repositories of shared knowledge and resources, and generate solidarity. Middle class bicycling communities, through the creation of networks and communities, are able to incubate business ventures like bicycle stores that in turn help scale and expand bicycling practices. Communities also collectively advocate for improved bicycling infrastructure in the city, through the work of non-profit organizations like the Ride a Cycle Foundation. As more middle class individuals take to the streets on bicycles, the perception that personal automobiles such as cars and motorbikes are integral to middle class identity is contested and even weakened a little. Similarly, in the case of waste management, online and offline networks help transmit best practices from one site to another, and facilitate the replication and scaling of neighborhood-based waste management systems. As more middle class individuals and families segregate trash, recycle, and compost, waste becomes an appropriate topic for discussion and an object of bodily engagement. Consequently dominant cultural and caste-based notions on the "impurity" of waste are questioned. Thus when changes in private practices of waste disposal or transportation are embedded in networks and curated by communities, they provoke conditions for cultural change.

However, my findings also provide extensions to Kennedy's work. By explicitly considering who is *excluded* from the networks and communities built around environmental behaviors, I demonstrate how these collective actions that produce cultural change in middle class consumption practices and lifestyle politics nevertheless replicate enduring class differences. That is, even though these networks and the collective actions that emerge out of them contest some hegemonic notions of what types of daily practices constitute middle class lives and identities, they still maintain and reinforce critical distinctions between the middle classes and other groups. This significantly limits their capacity to produce a less illiberal and more progressive form of environmental politics in the Indian city.

#### 1.4.3. The concept of bourgeois environmentalism

No discussion of the environmental politics in the Indian city can be complete without a consideration of Amita Baviskar's nuanced and widely applied concept of bourgeois environmentalism. Baviskar defines bourgeois environmentalism as middle class efforts to create order, hygiene, safety, and ecological preservation by fashioning a public sphere that excludes the poor. As Baviskar outlines "middle class activists mobilize the discourse of 'public interest' and 'citizenship' to articulate civic concerns in a manner that constitutes a public that excludes the city's poorer sections" (Baviskar 2011, 392). By framing their class-derived personal preferences as issues of public concern and by claiming to speak for the citizen of a city and of the nation, the middle classes are able to cloak self-interested actions as serving the greater environmental good. They simultaneously cast other actors, be it sanitation workers, street vendors, local businesses, or even the state, as representing vested interests, preoccupied with self-serving agendas (Anjaria 2009). Baviskar also notes that the efforts of bourgeois environmentalists to enact these exclusionary visions of the city through judicial activism have been thwarted both by the resistance

of municipal officials and excluded groups, and by the fact that the middle classes fail to recognize the role of their own consumption in producing urban congestion, To put it simply, the middle classes will never achieve their visions of an utopian “clean and green” city unless they critically examine their own roles in producing urban environmental degradation.

In Chapter 4, I ask whether the zero waste management practitioners of Bangalore can be categorized as bourgeois environmentalists. The answer, as I explicate, is a complex one. Bangalore’s civic activists, having witnessed the failure of “traditional” methods of environmental control through displacement of the problem to other communities (like moving garbage dumps to the peripheries of cities) and influenced by individualized environmental discourses coming in from the West, begin to target middle class behavior as a point of intervention. This in turn leads to the creation of uneasy alliances with groups representing the working classes, necessitated by the fact that the middle classes rarely do their own dirty work, here in the form of recycling or composting. Working class groups in turn capitalize on these alliances to articulate their claims to the city in terms of their utility as green workers. Through this process, bourgeois environmentalism is tempered. The middle classes, reluctantly in some cases, accept that the waste-engaged poor do have a place in the city, if only as waste managers.

Can middle class bicyclists be called bourgeois environmentalists? Here again, the answer is complex. On the one hand, bicyclists actively oppose a number of government, corporate, and middle class civil society-led actions that bourgeois environmentalists have generally been in favor of, such as the widening of roads or the creation of signal free corridors. Instead they lobby the state to build bicycle lanes or bike-share systems, or improve bus services, facilities that could presumably be used by the working classes and the poor too. They have vociferously opposed recent efforts to ban bicycles in the east-Indian city of Kolkata. Many are cognizant about the effects of their own and their family’s consumption in producing urban congestion. Many are repeatedly critical of urban planning that favors the personal automobile over all other modes of transportation. By interfacing with city streets without the protection of an air-conditioned automobile, they appreciate the value of green cover in the city, or even of road-side vendors selling fresh coconut water.

However, bicyclists largely fail to create connections with other constituencies of road users, be it working class bicyclists or pedestrians. Bicycling in Bangalore is best described perhaps as a niche sub-culture that does not necessarily adhere to a progressive politics of inclusion. Therefore while bicyclists may not be bourgeois environmentalists, in that they do not actively seek to evict the poor from the city, they rarely see other social groups as valid fellow stakeholders in efforts to make Bangalore more bicycle friendly.

## 1.5. Dissertation outline

The remainder of this dissertation is organized in the form of three papers, which are Chapters 2, 3 and 4 respectively, followed by a conclusion.

Chapter 2 applies a social practice theory analytic to show that expansions of bicycling communities in Bangalore are based on the distinctions these middle class bicyclists draw between themselves and two very disparate populations - middle class car-users and the bicycling poor. With their environmental discourses and signage, middle class bicyclists make claims to being ethical actors and ecological citizens. Their high-end bicycles and special gear reinforce their elite class status. I develop the term *defensive distinctions* to argue that new middle class bicyclists in Bangalore distinguish themselves from the poor and penurious captive cyclist to defend their class positions and maintain social status in personal and professional circles. They simultaneously stabilize themselves as ethical subjects within their own socio-economic class. I highlight the importance of considering the role of ethical discourses in stabilizing low-status social practices among high-status class fractions, and discuss the implications of promoting sustainable consumption through the *othering* of the poor.

Chapter 3 uses the case of home waste management to show how household behavior change is made possible by neighborhood-based coordination, involving multiple actors such as environmentally-conscious residents, domestic help, and hired waste workers. Drawing on ecological citizenship theory, I discuss how waste management through recycling and composting is being implemented in Bangalore through networks of socio-economically privileged new middle class individuals. Their privileged social, political, and economic positions enable them to collectively enact changes in their cultural and structural contexts to facilitate pro-environmental initiatives. At the same time, the role of other actors like domestic servants and waste workers is also critical to the process. I show how ecological citizenship theory can be used to analyze and highlight voluntary involvement by socio-economically privileged individuals but fails to recognize the contributions of actors, who through their livelihood practices, play a pivotal role in producing the systems that enable pro-environmental behaviors among the elite.

Chapter 4 changes focus from the household and neighborhood level to discuss how middle class community-based waste management systems are being expanded to change how the entire city of Bangalore manages municipal solid waste. I extend Amita Baviskar's bourgeois environmentalism frame to discuss the conditions under which middle class activists, seeking hygiene and ecological preservation, also advocate for the rights of (certain sections of) the poor to the city, and articulate a public sphere that includes members of the poor. I also show how waste pickers and other members of the informal sector build alliances with middle class groups by strategically articulating their rights to the city in terms of their utility and value as green workers. Middle class actors and working class voices interact in contact zones, creating conditions for the illiberal nature of middle class environmentalism to be contested and in some cases transformed. Nevertheless, while environmentally-minded middle class movements can create spaces for the economic inclusion of certain members of the urban poor and recognition for their roles in maintaining city environments, working class voices are still left out of most decision-making

processes and governance structures. This limits the potential of waste-related environmental movements to transform relational class politics in the city.

Chapter 5 concludes this dissertation by synthesizing the arguments of the preceding three chapters to present the main findings of this research project and emphasize its contributions to theories of environmental behaviors and middle class environmental politics. The findings of this dissertation speak to the literatures on middle class cultural politics, democratic politics, and relational class politics in the Indian city. They also provide some insights for policy-makers, environmental groups, and other stakeholders interested in the socially-just greening of Indian cities. I end by discussing some of the limitations of this work and point to future directions for this research.

## Chapter 2

### Elite and ethical: The defensive distinctions of new middle class bicycling in Bangalore, India

#### 2.1. Introduction: “Green” bicycling in Bangalore

On a Saturday morning in late 2012, the middle class neighborhood of Jayanagar woke up to witness the inauguration of Bangalore’s first network of bicycle lanes. The Ride a Cycle Foundation (RACF), a small non-profit that works to promote cycle-friendly urban infrastructure had persistently lobbied municipal authorities to build these lanes, arguing that this was an important first-step in making Bangalore more bicycle-friendly. White lines and bicycle symbols were painted on a network of streets in Jayanagar, delineating three ft. of space for bicycles.<sup>6</sup> That morning, government representatives, RACF volunteers, and schoolchildren, along with a number of Bangalore’s bicyclists, gathered together to launch these bicycling lanes. Around the celebrations, Bangalore moved as it had the day before. An older man rode past the event on a rickety bicycle. This bicyclist was significantly different from the ones attending this event. Dressed in a *dhoti*<sup>7</sup> and riding a rusty, Indian-made bicycle, he stopped briefly, looked at the gathering and rode on. Perhaps he dismissed it as a political gathering or an event for schoolchildren. Either way, the man bicycled away. With the assembled crowd spilling onto the road, passing cars and motorbikes weaved their way past the gathering. Some honked in irritation while others stopped and looked on in curiosity and amusement. But like the man in the *dhoti*, most drove on, barely glancing at the festivity. As the speeches finished, the assembled cyclists took a ceremonial ride around the block. Leading the pack were cyclists from a community called the Go Green Cycling Group. Dressed in their signature “Go Green” T-shirts, atop high-end bicycles, wearing helmets, visors, and in some cases, bicycle shorts, gloves, and other gear, these riders represented a new breed of bicyclist. Not poor—cycling out of choice and not necessity—these bicyclists belonged to the new middle classes of India.<sup>8</sup> Many of them owned cars, worked jobs in the Hi-Tech sector, and earned incomes that would place them firmly amongst the middle and upper income brackets of Indian society. Their message was clear: they were going green by going cycling.

In this paper I apply social practice theory (Reckwitz 2002; Warde 2005) as an analytical tool to

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<sup>6</sup> The cycle lanes are delineated by white lines, but are contiguous with the rest of the road.

<sup>7</sup> A *dhoti* is a traditional garment worn by men in India and other parts of South Asia.

<sup>8</sup> By using the term ‘new middle classes’, I follow Fernandes and Heller (2006) and others who use ‘new’ to distinguish the middle classes that emerged post liberalization of the Indian economy, from the older colonial and public-sector supported middle classes. As “vanguards of social modernization” (Mawdsley 2004), the ascendance of the new middle classes is closely linked to the economic opportunities provided by neoliberal reforms introduced in the 1980s. In the remainder of the paper, I use new middle class and middle class interchangeably, but always to refer to the post-liberalization middle classes of urban India.

show how the new middle classes of India are self-legitimizing, and adopting practices like bicycling that are typically associated with the poor working classes in modernizing India. I argue that expansions of a shared community of bicyclists are based on the distinctions these middle class bicyclists draw between themselves and two very disparate populations - middle class car-users and the bicycling poor. With their environmental discourses and signage, middle class bicyclists make claims to being ethical actors and ecological citizens. Their high-end bicycles and special gear reinforce their elite class status.<sup>9</sup> I develop the term *defensive distinctions* to argue that new middle class bicyclists in Bangalore distinguish themselves from the poor and penurious captive cyclist to defend their class positions and maintain their social status in personal and professional circles. They simultaneously stabilize themselves as ethical subjects within their own socio-economic class. By creating communities and collective identities that make claims to the ethical and elite simultaneously, middle class cyclists distinguish themselves from both the unethical and callous car user, and the inadvertently ethical, but otherwise insignificant working class bicyclist. I highlight the importance of considering the role of ethical discourses in stabilizing “low-status” social practices among “high-status” class fractions, and discuss the implications of promoting sustainable consumption through the *othering* of the poor.

Middle class bicycling practices are relevant to global scholarship on sustainable consumption and ecological citizenship for the following reasons. The new middle classes of Bangalore, like their counterparts in other major Indian cities, are hailed as India’s emerging consumer class, whose lives and lifestyles represent the success story of India’s economic liberalization. Along with their counterparts in other developing and emerging economies like Brazil, China, South Africa, and Mexico, India’s new middle classes herald the spread of consumer lifestyles to the erstwhile third world (Myers and Kent 2003; Lange and Meier 2009). Rising rates of energy and resource consumption by the middle classes in countries like India and China are often bemoaned as potentially fatal blows to the environment (Myers and Kent 2003).

This panic over the environmental impacts of intensifying consumerism in India necessitates an examination of the environmental attitudes of India’s middle classes, in relation to their consumption patterns and practices. The literature on this topic to date suggests that there is limited scope for India’s middle classes to reduce or redirect their consumption. While some sections of India’s middle classes invoke environmental norms and discourses, these are strategically deployed to solidify their claims to the urban commons (Baviskar 2011; Ghertner 2012), or to displace responsibility for environmental degradation on to other groups in the city, particularly the poor and the industrial sectors that employ them (Baviskar 2003; Mawdsley 2004). The consensus in these studies is that the middle classes are largely reluctant to acknowledge and examine the impacts of their consumption practices on the environment. However, the literature lacks studies that directly examine the everyday practices and behaviors of the middle classes,

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<sup>9</sup> Many scholars have pointed out that the middle class of India is not really in the middle in terms of socio-economic characteristics, but rather constitute the top 10-15 % of income-earners in Indian society (Baviskar and Ray 2011). In line with this, I postulate that certain sections of the urban middle classes, particularly the populations I study in Bangalore, can easily be defined as an economic and socio-cultural elite. Consequently, even though they are termed middle class in public discourse and in academic literature, they represent a section of India’s elite, as classified by their income levels, consumption practices, and political orientations (Fernandes and Heller 2006).



particularly those that can be defined as “pro-environmental”. By examining bicycling among Bangalore’s middle classes, an everyday commute and recreational practice that can have positive environmental benefits, my work bridges a gap in contemporary scholarship and contributes to a growing literature on new middle class (sustainable) consumption and citizenship in India.

The bicycling practices I describe in this paper are particularly interesting to sociologists as they allow one to interrogate the *class* dimensions of sustainable practices and green consumption. In modernizing urban India, bicycling is an activity relegated to those who have no other viable transportation option. As one of my interviewees remarked: “*No respectable middle-class adult would be caught on a bicycle.*”<sup>10</sup> Thus, studying bicycling in Bangalore tells us something not just about how sustainable practices like bicycling are instituted and performed among the middle classes, but also about the strategies that middle class actors use to legitimize and adopt practices predominantly associated with the poor in contemporary India.<sup>11</sup> In other words, if status privileges and certain lifestyles practices are key to middle class distinction, identity, and power (Fernandes and Heller 2006, following Bourdieu 1984), then how does the adoption of practices traditionally associated with poverty, deprivation, and thrift occur? Why are these practices framed and promoted as acts of environmental citizenship and sustainable consumption? Asking these questions helps to explicitly identify the relationship between these pro-environmental practices and the politics of class in urban India. It also illuminates the role of changing social practices in broader discussions of environmental politics in Bangalore.<sup>12</sup> In doing so I follow other scholars who recognize that being middle class in India is not a static or uniform identity, but that it is spatially and culturally differentiated, and constantly negotiated through everyday practices and politics (Baviskar and Ray 2011).

## 2.2. Social practice theory

Social practice theories (SPT) see social order as being rooted in everyday practices and seek intermediate ground between agency and structure in determining human behavior (Reckwitz 2002; Hargreaves 2011). SPTs are particularly useful in exploring how mind, body, agents, objects, knowledge, norms, structures, and discourses are integrated into a set of internally-differentiated practices that are executed by practitioners (Warde 2005). By situating their analysis at the level of the practice and focusing on the interactions between agency and structure, practice theorists like Bourdieu (1984), and more recently Reckwitz (2002), Shove (2003), Warde (2005), and Spaargaren (Spaargaren 2011) provide a new framework to analyze social behaviors. These

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<sup>10</sup> Full quote “This is what everyone says. That no respectable middle-class adult would be caught on a bicycle. This is only for children, or for those who have no other choice. So for me to bicycle, I have to justify it. To my family, my friends, and to everyone around me”, Harsha, 36.

<sup>11</sup> Bicycling is one among the many “eco-friendly”/ “green” consumption and lifestyle practices that are increasingly becoming popular among India’s elite and middle classes, particularly in its cities. Other practices include recycling, composting, urban gardening, and buying organic food and clothing.

<sup>12</sup> Bangalore, a city of over 8 million in South India, has expanded in size and population since the liberalization of the Indian economy (Nair 2005). It is often referred to as the ‘Silicon Valley of India’ because of the high concentration of information technology companies in the area. Bangalore consequently has a significant new middle class population, whose consumption practices are increasingly similar to North American and European lifestyles (Upadhyaya 2009).

investigations are of increasing relevance to studies of sustainable consumption, citizenship, and community action<sup>13</sup>, and move beyond approaches anchored in behavioral economics, social psychology and related fields. By highlighting the co-shaping of individual agency and social structures, practice-based analyzes can help devise policy options that address both individual attributes and structural variables simultaneously (Røpke 2009; Spaargaren 2011).

SPTs also recognize that individuals and groups, through various social and political formations, affect the performance, stability, and transformation of practices. Relating this to consumption practices, Warde (2005, 6) observes, “Sociological applications of the (practice) concept may deal equally with persistence and change in the form of practices and their adherents, with manifest differences in the ways in which individuals and groups engage in the same practice, and with the social conflicts and political alliances involved in the performance and reorganization of practices.” Recognizing variations in how different groups of people engage with, perform, and change a practice lays the foundation for looking at the relationship between collective identities and class politics, as expressed through everyday practices. This is of critical importance in India, where the performance and non-performance of certain types of everyday practices are one of the most significant ways of establishing and maintaining middle class identity.

Drawing from Bourdieu’s concept of *habitus*<sup>14</sup>, Fernandes and Heller describe India’s new middle classes as a class-in-practice, “the contours of the new middle classes can be grasped as a class-in-practice, that is, as a class defined by its politics and the everyday practices through which it reproduces its privileged position” (Fernandes and Heller 2006, 497). The performance (and non-performance) of certain types of practices, consumptive, political and otherwise, is how new middle class identity is maintained and reproduced. Practices of middle class distinction are particularly visible in cities like Bangalore, which has in the past three decades transformed from a medium-size city of pensioners, public sector enterprises, and small-scale industries, to a growing technology city enmeshed within circuits of global capital (Goldman 2011). Sprawling malls, chic coffee shops, gated communities, and car-clogged roads embody the new middle class lifestyle. Each of these spaces serve as sites for the execution of various social practices that constitute these lifestyles. These include shopping and recreation in malls, genteel domesticity and classy community in gated neighborhoods, and travel by car or motorcycles (Baviskar 2011; Wilhite 2008).

In this paper I focus on middle class transportation practices and the privileges they afford. In addition to serving basic commute functions, car use and ownership help individuals attain and retain middle class status in urban India. As scholars writing about the urban middle classes in India observe, cars are advertised as the most convenient, safe, efficient, and stylish mode of transport. They are framed as the best way to navigate the chaotic and unsafe city. Advertisements on cars play on themes of inclusion and exclusion, emphasizing how car ownership is a critical

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<sup>13</sup> For recent treatments on this theme see Warde (2005), Halkier et al. (2011), Hargreaves (2011), Sahakian and Wilhite (2014).

<sup>14</sup> Bourdieu describes a habitus as “systems of dispositions, characteristic of the different classes and class fractions” and asserts that dispositions both produce practices, and in turn are changed by them (Bourdieu 1984, 541).

symbol of having achieved middle class respectability (Baviskar 2011; Wilhite 2008). Cars are also a primary means by which the middle classes seek to establish their claims to the roads and the urban commons, often by squeezing out other users of the streets like vendors, pedestrians, and bicyclists. Baviskar neatly recaps the dominant narrative on cars, saying: “Cars are necessary and desirable. Those who have the wherewithal to own, drive and ride them are, by definition, respectable citizens by virtue of their demonstrated property-owning power” (Baviskar 2011, 414).

Automobiles afford their occupants mobility while also inuring them from the risks, noise, and pollution of city streets. This is particularly perverse as urban air pollution is itself a product of increased middle class consumption in the first place. By allowing middle class individuals to enjoy the fruits of consumption without having to face its externalities, cars enable a distancing and displacement of responsibility for the public commons, and for environmental harm onto the poor (Mawdsley 2004; Baviskar 2011). This reproduces the privileged position of the middle classes as those who can get around the city with ease, and in the case of those who use air-conditioned vehicles, afford to breathe clean air. Mobility in automobiles also gives its occupants an increased sense of personal safety and protection from physical harm. Practicing mobility through the use of cars in turn helps reproduce positions of middle class privilege and power (Fernandes and Heller 2006, following Bourdieu 1984).

In contrast to car use, bicycling requires an individual to interface with the city streets and atmosphere in a visceral and intimate manner. A bicyclist is exposed to noise, smells, and polluted air, and is particularly vulnerable to the whims of large automobiles. If the car is the symbol of modernization, development, and “having made it”, the bicycle is its amodern antithesis. Hegemonic depictions of the new middle class lifestyle as an automobilized lifestyle leave no room for the bicycle in the everyday practices that constitute such lives. How then is bicycling to compete with the hegemony of the car in middle class life? That is, how are traditionally stigmatized, working class bicycling practices being accommodated<sup>15</sup> within the constellation of social practices that constitute a new middle class lifestyle? And could the accommodation of cycling practices disrupt or transform middle-class identity and privilege? These are the fundamental questions that this paper seeks to answer. By applying a social practice analytic to study middle class bicycling practices, this paper makes a significant contribution to the growing literature that investigates the applicability of practice-based approaches to environmental behaviors and sustainable consumption in a novel context. This work also reinforces calls for practice theory scholars to go beyond studies that focus on the reproduction and stability of social practices, and instead look explicitly at how practices change in different contexts (Halkier, Katz-Gerro, and Martens 2011). To do this, I follow Sahakian and Wilhite (2014) and look to community as a critical site where individuals can experiment with new practices, and collectively change identities and norms associated with them. Collective action in communities, and political alliances with government representatives help stabilize new social practices like bicycling among the

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<sup>15</sup> I use the word ‘accommodate’ because cycling practices rarely replace other practices like driving a car (i.e. transportation practice), or going to the gym (a health/recreational practice). Rather, they are added on and often exist in tension with other practices. It is only in a few instances where they may replace another practice, or cause ripple effects onto other domains of life (e.g. an individual who sells their car and stops eating meat, and attributes these changes to bicycling).

middle classes, even when such a practice is associated with poverty. Finally, by showing how the new middle classes accommodate bicycling into their lives, I show how class identities are both simultaneously reproduced and transformed by new practices.

### 2.3. Data and methodology

In this paper, I draw on interviews, participant observation, media analysis, and online ethnography to analyze the processes by which new middle class bicycling practices emerge and stabilize. My approach follows Hargreaves (2011, 83), who applies “Shove and Pantzar’s (2005) empirically helpful understanding of practices as assemblages of images (meanings, symbols), stuff (materials, technology), and skills (forms of competence, procedures) that are dynamically integrated by skilled practitioners through regular and repeated performance.”

The data presented here was collected during eight months of ethnographic fieldwork in Bangalore. During my fieldwork, I conducted 20 semi-structured interviews with new middle class individuals who practice and/or promote bicycling in Bangalore.<sup>16</sup> Interview respondents were identified and recruited through a number of channels: through a listserv of a bicycling community in Bangalore, Facebook and Twitter posts, and through snowball sampling. Among these respondents 15 were men and 5 were women.<sup>17</sup> Most interviews took place on a one-on-one basis either in the homes of respondents, or in public settings like coffee shops or parks. Among my interviewees, four individuals were couples and I interviewed both members of the couple together in their home. Nine of my respondents were employed in the Information Technology (IT) industry either as engineers or managers, all of whom bicycled to work at least four times a week. Five others had previously worked in technology companies, but had quit their jobs in the past year or two to pursue interests around bicycling and other environmental issues. One of them, Nikhil, had started a bicycle store and moderated one of the largest bicycling listservs in Bangalore. Another, Karthik had left his IT job to work with the Ride a Cycle Foundation (RACF), which he helped launch. He was the driving force behind the Jayanagar bicycle lanes project. One of my female informants was, when I first met her in 2011, employed in one of India’s biggest software companies. By 2013, she had quit her job and started working for RACF full-time, while also pursuing other interests in waste management and organic farming. Another female informant had also quit her IT job and was planning to start working at a bicycle store as a mechanic. About half of my respondents identified as being “native” to Bangalore (they were born and brought up here) while the rest immigrated into the city for education or work opportunities from various parts of India. Two of my informants were “expats” or “immigrants”, who were born and raised in Europe but moved to India and eventually settled down in Bangalore.

Interview questions included asking respondents about how and why they began to bicycle as adults, what kinds of trips they make (e.g. for commute, recreation, exercise, shopping etc.), the information they refer to, who they consulted or interacted with, barriers they faced while adopting

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<sup>16</sup> While I did not ask questions about income, the education, occupation and the consumption profiles of my respondents would place them firmly within the middle classes.

<sup>17</sup> This breakdown does not reflect the gender balance among Bangalore bicyclists overall, where men far outnumber women.

and performing the practice, what the practice means for other aspects of their daily life, and how their families and friends have reacted to these changes. In addition to interviews I attended public meetings on bicycling such as workshops promoting bicycling in workplaces, official events inaugurating bicycling infrastructures, and cycle rallies. I also carried out an online ethnography, which involved tracking online conversations on email groups and forums, Facebook, blog posts, media articles and other sources.<sup>18</sup> I integrate these multiple sources and types of information below, and use the social practice analytic to decipher the different dimensions of the new middle class bicycling practice.

## 2.4. The rise, fall, and rebirth of bicycling

Bicyclists today are ubiquitous on the bumpy roads of Indian cities. British colonists brought the bicycle to India in the 1890s, importing both bicycles and bicycle parts from Europe. For European men, women, and children, bicycle riding was an affordable and accessible form of genteel recreation. Europeans briefly attempted to use bicycles for official purposes in the 1910s, but this quickly fell out of vogue, as using a bicycle compromised the supposed racial superiority of Europeans. Therefore while it was acceptable for Europeans and upper class Indians to be on bicycles for recreation, the bicycles' utilitarian value was emphasized to the working classes. The colonial government encouraged native government functionaries like postmen, peons, clerks in offices, and even the police to use bicycles by offering loans for their purchase (Arnold and DeWald 2011).

The colonial middle classes of India also took to the bicycle for a number of reasons. The bicycle in India was part of an Indian middle class quest for a more "healthier image and a self-reliant lifestyle" (Arnold and DeWald 2011, 983). Bicycle clubs emerged in cities like Calcutta and Bombay, where young men, many of whom were students from high status families, toured the countryside and organized bicycle races. Bicycling became a way for young men to assert their masculinity against European stereotypes of the Indian upper class male as effeminate.

After independence, economic policies curtailed the import of British-made bicycles, but a local bicycle manufacturing industry emerged. While the bicycle in newly-independent India continued to retain its "foreign", or specifically English connotations, it had already been adapted to local use at this point. Cottage industries manufacturing bicycle accessories and assembling bicycles from parts were seen all across the country; local bicycle dealers catering to an indigenous bicycling population emerged in the 1920s and 30s; bicycle repairmen dotted street pavements; departing Englishmen sold their bicycles to local users; and many bicycles were stolen from their original owners and refashioned for use by entrepreneurial local thieves. The bicycle soon became as Indian as it was European (Arnold and DeWald 2011). Despite efforts by nationalists to dissuade Indians from using foreign-made products, the bicycle was increasingly patronized in India. The bicycles' popularity percolated down to the rural and urban working classes, for whom bicycle

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<sup>18</sup> The methods I used to do this follow what Kozinets refers to as 'Netnography'. However, as I combined both online and offline interactions, my approach could be better characterized as a 'blended netnography/ethnography' (Kozinets 2010).

ownership provided new livelihood opportunities and social mobility (Tiwari 2002). In recent decades, bicycles have also been viewed as a tool for empowerment, particularly of women. A number of government schemes have distributed cycles to young women in southern states like Tamil Nadu, citing this as a means to enhance their mobility, independence, and self-reliance (Rao 2002).

The bicycle in India started off as an identifiably foreign import, and even served as a vehicle to acquire social status and upward mobility. However, with the rising automobilization of Indian cities in the 90s and after, the bicycle was quickly overtaken by the car and the motorcycle. In the contemporary moment, the majority of urban cyclists are categorized as “captive” or “utility” cyclists, that is, members of the urban poor and the working classes who use bicycles to commute and transport goods (Tiwari 2002). Low-income households rely on non-motorized transport modes like walking and bicycling to access education, employment, health care, and other services. Bicycles are the most efficient and affordable mode of transport available to this demographic, with cars and motorcycles being too expensive and public transport too infrequent. Utility cyclists comprise anywhere from 8% to 27% of the road-share in medium to large cities (Ministry of Urban Development GoI 2008; Tiwari and Jain 2013)

In Bangalore and other Indian cities today, a cycle ride is rarely a pleasant activity in urban India. Forced to jostle for room with aggressive automobiles, harassed by cops, breathing polluted air, sweating in the unforgiving Indian sun, riding barely-roadworthy bicycles, while transporting goods as bizarre as gas cylinders or dying chickens, this is no recreational ride (Gupta 2013). Worsening air quality and traffic congestion only exacerbates this situation (The Hindu 2012a). To add to their woes, working class bicyclists are increasingly being viewed, quite literally, as physical impediments to the juggernaut of India’s development aspirations. A recent ban on bicycles in the city of Kolkata is testament to how the State discriminates against and disfranchises this class of road users (Bera 2013; *The Economist* 2013). This strategy is in alignment with the broader agenda of “lifestyling” Indian metros, where the State, large businesses, and elite civic groups work together to refashion Indian cities such as Bangalore in the image of “world-class” cities like Singapore (Benjamin 2007; Nair 2005). As Bangalore becomes further enmeshed in the circuits of global capital and consumption, its poor denizens are forcibly relocated to its peripheries through projects of slum removal, or survive in its crevices in constant insecurity (Nair 2005). The struggle for space on the road follows similar lines, with bicycles and pedestrians literally being squeezed out of street-space. Pedestrians and cyclists often must fear for their lives, as the number of pedestrian fatalities in Bangalore has been increasing year to year. For example in 2007, 961 persons were killed and 6591 persons injured by motor-vehicles in Bangalore (Rahul and Verma 2013).<sup>19</sup> Like in other societies where both physical road space and social identity formation are

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<sup>19</sup> This disfranchisement of cyclists and pedestrians is of course a feature of most automobilized societies. In his account of the bloody and violent early years of automobilization in the US, Norton (2011) chronicles the highly-contested conversion of street-space from a multi-use space to an automobile thoroughfare where pedestrians were confined to crosswalks and sidewalks. Pedestrians and cyclists remain marginalized in most US cities (Henderson 2013). Recently, however, some US cities like Chicago, New York, Portland, San Francisco and Los Angeles have begun to build cycling infrastructure like separated lanes, bicycle-share systems, and bicycle boulevards (Vivanco 2013). This renewed interest in bicycle infrastructure has been attributed to many factors, including the ‘normalization’ of the cycling practice, associations between cycling and the so-called ‘creative class’, and urban gentrification of

dominated by automobiles, particularly cars, other road users including bicyclists are reduced to “essentialised and stigmatized identities” (Aldred 2013, 253). Bicycling is seen as a *classed practice* (Aldred and Jungnickel 2014). Thus it is no surprise that bicycling rates in Indian cities, Bangalore included, have been declining steadily since the late 80s and early 90s, with “captive/utility” riders upgrading to motorcycles and other types of automobiles when possible (Nair 2005; Tiwari and Jain 2013). In the city of Bangalore, bicycling rates were as high 71 % in the 1970s, comprising both middle class and working class bicycling commuters (Nair 2005).<sup>20</sup> Today bicycles are estimated to compose anywhere from 2 to 20 % of the transportation mode share (Rahul and Verma 2013; Tiwari and Jain 2013).

In this paper, the phenomenon I investigate is the reemergence of bicycling among the middle and upper classes of urban India, particularly among men.<sup>21</sup> In the past 5-8 years middle class bicycle enthusiasts have taken to weekend bicycle rides, rallies, and races as a popular form of recreation, and many have adopted bicycling as their main mode of commute.<sup>22</sup> Middle class bicycling has since increased in popularity as evidenced by the thousands of members who post on online listservs, forums, and blogs, and the emergence of a number of high-end bicycle shops that sell imported bicycles. There is also the rising prominence of competitive bicycling events like Bangalore Bicycling Championships, weekly “Go Green” rides, the establishment of advocacy organizations like the Ride a Cycle Foundation, and the launch of bicycle-share systems in university campuses and major commercial areas. Many individuals use bicycles as their main mode of commute, often riding 40-50 kilometers on Bangalore’s traffic choked roads every day, while inviting incredulous glances from their car-driving brethren.<sup>23</sup> From its start as foreign

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downtown areas (Stehlin 2014; Vivanco 2013). Cyclists are better served in Europe, particularly in the Netherlands and in some Scandinavian cities, which have invested in extensive cycling infrastructure, and where cycling is considered an integral part of public culture and national identity (Pucher, Buehler, and Seinen 2011).

<sup>20</sup> An account by Joseph (2013) describes a racing cycling culture that existed in Bangalore in the 1970s saying “this Bangalore cycling community of the 1970s emerged as a distinct counter culture to the car-derived logic of mainstream transportation networks, through the public practice of an active cycling culture. The presence of professional cyclists temporarily deferred the impending reality of a “choked metropolis” (Joseph 2013, 323). She presents cycling in Bangalore, particularly among women, as a key site of rebellion and resistance.

<sup>21</sup> Bicycling is also becoming popular among the middle classes in other Indian cities like Delhi, Pune and Chennai (Gupta 2013). Sunita Narain, one of India’s most well-known environmental activists, was in a bicycling accident in 2014, which brought renewed attention to the state of bicyclists in Indian roads (Narain 2015).

<sup>22</sup> I received a couple of different ‘origin’ stories for this reinvigoration of bicycling in Bangalore. For some individuals who were employed in the Information Technology industry, trips to offices in California had provided a glimpse into recreational and commute bicycling. When they returned to Bangalore, they decided to start taking day-trips outside the city. Eventually the bicycling scene diversified to include racing, day trips, and week-long trips like the popular Tour of Nilgiris, and more casual rides for beginners. Bangalore’s bicycle racing scene in particular has been growing consistently over the years.

<sup>23</sup> While estimating the number of bicyclists in Bangalore who would identify as middle class is difficult, the size of online bicycling communities provides some indication of this. For example, the Bangalore Bicycling Club Google group has nearly 5000 members, with membership increasing from year to year. The Go Green Cycling Group claims to have over 3000 registered members. While these numbers are small compared to the overall population of Bangalore, which in the 2011 census totaled 8,425,970 persons (Government of India, 2011), this evidence clearly suggests that bicycling is becoming more popular among certain sections of Bangalore’s new middle classes. Data sourced from the public page of the Bangalore Bicycling Club google group, available here: <https://groups.google.com/forum/#!forum/bangalore-bikers> (Last accessed 9/24/2014) and the Go Green Groups’

import that enhanced social status and upward mobility, to one that is explicitly associated with deprivation, but once again being reinvented as a source of health, recreation, and environmental benefits, the bicycle's journey in India shows interesting cyclical patterns. In the following sections, I show how new middle class bicyclists invoke multiple discourses to elevate the bicycling practice, and to load it with meanings of convenience, environmentalism, and efficiency, making it simultaneously elite and ethical.

## 2.5. Findings: The elite and ethical dimensions of new middle class bicycling

### 2.5.1. Symbols and discourses

Individuals enter into sustainable consumption practices like bicycling for both self and other-oriented reasons (Aldred 2010; Soper 2007). For some young Bangaloreans, bicycling has become a preferred recreation and fitness option. Members use listservs, like the one run by the Bangalore Bicycling Club, to coordinate weekend rides to outdoor destinations, discuss fitness tips, and share stories about successes and failures on two wheels. Many cycling enthusiasts talk about how bicycling has made them healthier and increased their sense of well-being. For a sizeable majority, bicycling is also a great way to escape Bangalore's legendary traffic jams and save money on fuel. For instance, all of my respondents (20/20) mentioned health benefits as a motivation behind their bicycling practices. 12/20 explicitly mentioned saving money on fuel as an added bonus, while 9/20 said they enjoyed getting ahead of cars on the road. Bicycling advocates draw on these discourses around fitness, health, and savings to popularize bicycling. In doing so, they associate bicycling with certain *images*, i.e. meanings and symbols, that convey its attractiveness and suitability for middle class bodies.

As a practice theory analytic would suggest, *images* (meanings, symbols), and *stuff* (material and technology) often work together to recruit more practitioners into commute and recreational cycling. As one example of the interplay between stuff and images, the new middle class recreational and commute cyclist presents a stark visual contrast to the utility/captive cyclists of Bangalore. Dressed in spandex shorts, wearing special gloves and bike helmets, and riding imported bicycles, many new middle class cyclists look modern and sleek, much like the cyclists of the United States or Europe. Some use expensive imported bicycles that are advertised as "hi-tech" and powerful. These imported bicycles are also several times more expensive than the local bicycles that utility working class cyclists invariably use.<sup>24</sup> The following two interview quotes substantiate how bicycling is packaged as appropriate for the middle classes.

"It helps that these bicycles are expensive... people can think of them as an upgrade and not as beneath them... there are some people who are buying their first bicycle now, instead

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website, available here: <http://www.gogreengocycling.org/> (Last accessed (9/24/2014))

<sup>24</sup> For example, a high end road bicycle can cost 50,000 to 200,000 Indian Rupees (800-3200 US Dollars), while a locally made bicycle, or a cheap Chinese import is likely to cost as little as 1500 Indian Rupees (25 US Dollars). Second-hand bicycles can be even cheaper. In comparison, the price of cars in India can range anywhere from the economy Tata Nano, which costs somewhere between 100,000 to 150,000 Indian Rupees (1600-2400 US Dollars) to luxury models, some of which are priced at above 1 million Indian Rupees (16,000 US Dollars).



of their first car (*the purchase of the first car is considered to be a very important step in gaining and cementing new middle class status*) but they will do that only if it is expensive and if people around them know that they can buy a car if they want to.” Nikhil, 29

“... (People) might think that bicycling is a painful thing, based on past experience. When the bikes were all really heavy and difficult to ride... had punctures... a lot of problems that you don't see with a motorbike or a car. But if you want them to step out of their air-conditioned car, you need to give them a cool solution. Not just status. A cool solution as in it should be fast, efficient, light-weight. Cool sexy bikes. People are busy flaunting them. It feels good, you know, you can show it around and all that stuff. I often tell people, that if you are a CEO, you might as well buy a bike that is worth 2 Lakhs, with a carbon frame and all that. Instead of buying a Scorpio (*luxury car*) for 10 Lakhs. Status is no longer a stopper (barrier).” Rahul, 31

As these interview excerpts suggests, by framing bicycling as something cool, fun, efficient, and even enjoyable, bicycling advocates are able to allay some of the status concerns of potential middle class bicyclists. Bicycle advocates like Nikhil and Rahul, who are both commute cyclists themselves, emphasize how these bicycles can compete with cars on Indian roads, giving one speed, personal control and time management, but shorn of inefficient externalities like pollution or fuel costs. In this discourse, these imported bicycles compete with cars to be the symbols of progress in a modernizing city. Bicycles also provide a means for individuals to improve themselves, by becoming healthier, thrifty, and eco-efficient.<sup>25</sup>

In addition to signaling this discourse of “cool”, “fitness” and “health” underlying new middle class bicycling, cyclists also draw on *images* and *stuff* to showcase the ethical motivations behind their decisions to bicycle. A telling sign of this is the following text taken from the website of the Go Green Initiators group, one of Bangalore's most popular bicycling communities. This excerpt was written by the founder of this movement.

“It's a general notion in our country, when someone who spots a cyclist they feel He/She is cycling either for fun or they cannot afford to buy motor cycle/car but the same cyclist cycling with a Go Green-Tee can pass on a clear message that He/She is cycling for a cause. The print on the Tee is self-explanatory and doesn't require any briefing on the cause. YOU GET BACK U'R RESPECT WHILE U WEAR THIS GO-GREEN TEE & RIDE CYCLE.”<sup>26</sup>

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<sup>25</sup> This theme of emphasizing the status dimensions of bicycling resonates with what Aldred (2010) observes about cyclists in the UK city of Cambridge, suggesting that the middle class bicycling communities in Bangalore have much in common with cyclists in Europe in terms of how they view and motivate their practices.

<sup>26</sup> The rest of the text says: “IT'S A TOOL THAT MAKES OTHER'S 2 FEEL GUILTY & WILL OPEN UP THEIR MINDS 4 SUPPORTING OR CONVERTING FROM MOTOR VEHICLE TO BICYCLE... One can ensure to pass on a clear message of “Going Green for a better tomorrow”. The text is copied verbatim from the webpage which can be accessed here: <http://www.gogreengocycling.org/why-gogreen-tee>. A picture of the Go Green T-shirt is also available on the page. (Last accessed 9/24/2014)

The author of this text is a first-generation Bangalorean who moved to the city from a small town to work in the IT sector. His successful career has increased his net-worth substantially, and at one point, he owned as many as six cars, a strong sign of his having “made it”. He was a leader within his family and his community. His decision to become a cyclist came after he watched the movie “An Inconvenient Truth”. He told me how he was deeply troubled by the threat of climate change and took up bicycling as a way to reduce his environmental footprint. However, this decision was met with surprise and disapproval from many people in his life. When I interviewed him, he told me that the T-shirt was his way of combating the intense criticism and censure he received when he first began to bicycle. He decided to market the T-shirt and build a movement to popularize bicycling in the city.<sup>27</sup>

This excerpt indicates that middle class bicyclists frame the act of bicycling as an act of ecological citizenship. Ecological citizenship, Andrew Dobson’s normative theory of environmental action, posits that individuals who have historically taken more than their fair-share of global resources should voluntarily compensate for this by taking on public and private actions that have beneficial outcomes for the environment (Dobson 2003). By emphasizing that bicycling for the middle classes is a voluntary act taken on not just for personal benefits like fitness, but also for planetary stewardship, the practice is elevated to a status of ethical import. By talking about “going green by going cycling”, bicyclists also distinguish themselves from car-drivers, whose apparent apathy to environmental problems is evidenced by their continued patronage of automobiles.

I also met individuals who had developed an awareness of and interest in environmental issues through their engagement in bicycling communities. For example, one of my interviewees, when asked about what motivates him to cycle, responded saying

“Initially I was motivated by fitness and health concerns, so I used to cycle 75% of the time. Now environment has become a bigger factor, so its’ about 100%. The fact that it is painful to go around in a car or motorcycle helps.” Gopi, 35

For this individual, his interest and engagement in environmental issues increased after he began to bicycle and attend regular Go Green Rides. He met individuals who were more environmentally-engaged than he was and consequently became exposed to discussions on myriad issues like climate change and conservation.<sup>28</sup> Eventually, he began to adopt other pro-environmental behaviors like composting his food waste. While his story suggests that bicycling can be a gateway practice to environmental engagement, it is important to note that an interest in environmental issues is by no means universal in Bangalore’s bicycling communities. For many bicyclists, the environment is peripheral to their practice (7/20 of my interviewees did not think this was an

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<sup>27</sup>He did this by organizing weekly rides on Saturday or Sunday mornings. These rides, which usually last about 2 hours, take bicyclists through quieter streets in the early hours of the day, before car traffic picks up. The Go Green rides are particularly popular among novice bicyclists, as it gives them an opportunity to practice bicycling in a relatively safe environment.

<sup>28</sup>Aldred (2010) observes a similar dynamic in Cambridge where individuals began to develop increased awareness and consciousness of environmental issues after becoming regular cyclists. This suggests that bicycling, could in some contexts, be a feeder activity to other forms of environmental engagement.

important motivating factor to their bicycling practice). Health, fitness, and efficiency are the prime motivators, as is the “coolness” factor. Some bicycling advocates also told me that they had begun to downplay the environment dimension in their presentations, as many audience members felt that this was too “preachy” or targeted towards making them feel guilty. Nevertheless, the environment was constantly invoked by cyclists as a *justification* for their bicycling practice, i.e. even if it did not motivate their actions in the first place, it was often used to rationalize and justify their bicycling choices later to friends and family.

Thus, *stuff* such as expensive bicycles, gear, and T-shirts, along with the *images* that accompany those help distinguish middle class cyclists both from captive cyclists on the one end and callous car drivers on the other, permitting them to retain their new middle class identity and privilege, even while riding a lowly bicycle. This ethical and elite framing of bicycling makes it more desirable and acceptable, and consequently easier to popularize among the middle classes. It is also important to mention here that imported bicycles, specialized clothing, and gear serve practical purposes beyond their symbolic value. Imported bicycles are faster, more stable, and help individuals commute distances that would not be possible on locally made bicycles. Cycling gear, like helmets and gloves, provide an added dimension of safety that is especially important when bicycling in traffic or on poorly lit roads. Bicycling tights and T-shirts are more comfortable to ride in as they wick sweat away from the skin. These utilities, which are provided by expensive gear, help stabilize the practice as they make the act of bicycling safer and more pleasant.

#### 2.5.2. Defensive distinctions and collective identities

“How did your family and friends react to your decision to start bicycling to work?”

“Actually initially some of them were surprised. Some were dismayed, since the perception is that if you can afford a car, why would you cycle? But some were quite impressed and happy that I cycle regularly.” Ganapathy, 37

I develop the term “*defensive distinction*” to describe how the middle classes deploy both class-based and ethical distinctions to simultaneously distinguish themselves from the poor and penurious working class cyclist, and the unethical middle class car user. Class-based distinctions from poor cyclists are created through the use of images that evoke associations with cyclists of USA and Europe and discourses that highlight the conveniences, efficiencies, and pleasures of bicycling. Ethics-based distinctions to stand apart from the middle class car user are made through the explicit framing of bicycling as an eco-friendly practice that contributes to better city and global environments. These distinctions are critical to the strength and stability of the bicycling practice for two interrelated reasons. New middle class identity is developed and maintained in relationship to its constitutive outside, i.e. poor others. Thus, the new middle classes seek to distinguish themselves from the poor through their consumption and lifestyle practices (Fernandes and Heller 2006, following Bourdieu 1984). At the same time, they make claims to speak for the “everyman”, and for the common-good (Baviskar and Ray 2011). By elevating bicycling to the same symbolic position as car ownership in middle class society, while simultaneously classifying themselves as ethical subjects *within* their own class fractions, they fashion identity that is both

elite and ethical.

**Table 2.1: The defensive distinctions of middle class bicycling**

Defensive Distinctions	Stuff	Images	Skills
	materials and technology	meanings and symbols	forms of competence and know-how
<b>Ethical</b>  To distinguish from the unethical car-driving middle classes	Go Green T-shirts  The lack of a car/ not using an automobile everyday(non-stuff)	“Green Bangalore”  “Stop climate change”  “Say no to fuel”  “Be responsible”	The knowledge to talk about climate change/ environmental problems  Knowledge of other environmental practices- recycling, buying organic food
<b>Elite</b>  To distinguish from the inadvertently ethical poor bicyclist	Imported cycles  Specialized bicycling clothes- sweat-wicking, reflective and high performance  Helmets and gloves	“Cycling makes you sexier”  “I cycle because it is fun”  “Cycling means you have a life”  “This is faster than using a car in Bangalore traffic”	Using multiples types of bicycles- road bikes, mountain bikes and hybrids  Knowledge about fitness and health  Knowledge about good bicycle routes outside the city for weekend rides

### 2.5.3. Skills, support, and shared learning: Community in Bicycling

The creation of an elite and ethical identity is in turn supported and propagated by communities of cyclists. Bicycling communities perform two complimentary functions that are critical to the stability of middle class bicycling practices. First, by making members adopt and display shared symbols, and promulgate specific discourses, they help strengthen the identity of a new middle class cyclist as one who is both elite and ethical, and fundamentally different from the deprived utility cyclist and the unethical car user. Second, and perhaps more importantly, they support

bicycling practices by providing information, building skills, and by functioning as a forum for cyclists to collectively lobby for improved infrastructure in the city.

The opportunity to be a part of a community and meet people is major benefit that comes with bicycling. This is especially relevant for individuals who moved to Bangalore in search of jobs in the Information Technology industry, and often feel socially isolated in this fragmented city. All my interviewees highlighted that bicycling helped them meet new people, make friends, and develop a sense of belonging and community. This assertion from one of my interviewees substantiates this point

“We have multiple groups of cyclists in Bangalore, the Go Green Initiator's club and Bangalore Bikers club being 2 examples. I belong to both of these groups. I would say that a lot of my interactions are with bicyclists since I'm quite passionate about promoting it. And having gone on long rides with fellow bikers, a lot of them have become my friends.”  
Sharan, 37

Additionally, the support function of active bicycling communities is integral to the rising prominence of bicycling among the middle classes. An interviewee neatly recaps how bicycling communities have helped her develop the skills she needed to become a regular cyclist:

“I always wanted to bicycle because I am concerned about the environment ... I tried it by myself for 2 years, but it was very hard to keep it up. Finding a community like the Bangalore Bicycling Club helped because I got a lot of practical advice and also saw that there were others doing 20 km commutes everyday... I was also able to join many people on rides, which was fun ...I realized it was possible to do this... I was facing opposition from my family as they thought cycling was not safe for women in Bangalore... by meeting other women cyclists in these groups, I was able to reassure them.” Lakshmi, 34

As this quote suggests, cycling communities are critical spaces for social learning and skill-building. Similar to what Stehlin (2014) demonstrates in San Francisco, Internet-based bicycling groups develop collective norms and concepts of “proper cycling practice”. The cycling groups of Bangalore function as communities of practice as they consist of individuals who have come together out of a mutual interest in cycling for commute and recreation. As Sahakian and Wilhite (2014) discuss, communities of practice play a critical role in changing practices, as they can expose people to new practices, allow experimentation, and thereby help stabilize practices.

Bicycling communities are integral to the socialization of commute and recreational cycling as a practice to aspire for. This is especially important in the light of the fact that, for many cyclists, their immediate families are not supportive of their decisions to cycle regularly. Access to a community of like-minded practitioners helps offset censure from family and can also eventually help recruit family members to the practice. This function of cycling community was well illustrated during an interview with a couple: In this family, the husband was a cycling evangelist and convert, while his wife was initially resistant to cycling and especially nervous about how safe her husband was cycling to work every day. She eventually came around and started bicycling herself after she went on a few Go Green rides. The fact that children, older people, and women

went on these rides helped convince her that cycling was relatively safe and not an activity reserved for young men. She now cycles regularly in her neighborhood and often goes on rides with her husband and children. She identified the community as a critical factor in changing her mind.

Bicycling communities also provide members with support, encouragement, and resources. Online communities serve as repositories of shared knowledge on bicycling gear, bicycling routes within and outside the city, and technical knowledge on how to repair bicycles. Members often shared personal stories and experiences of riding different routes on forums. These accounts in turn serve as a resource for people who are beginning to bicycle on Bangalore's often daunting roads. Online communities extend to offline activities too. Community members conduct bicycling workshops in workplaces and university campuses. Experienced cyclists come to these workshops and make presentations that list the various benefits of bicycling, in terms of health, fuel costs, and recreation, while also providing other useful information on bicycling gear and riding routes.<sup>29</sup> Many community members help novice cyclists learn how to ride on Bangalore roads by going on bicycle rides with them, helping them buy the right type of bicycle, and troubleshooting problems.

Communities of bicyclists not only recruit more middle class practitioners into bicycling, but also play a role in developing and improving bicycling infrastructure. The emergence of new middle class bicycling entrepreneurs and activists from within these online communities has contributed to developing an ecosystem of services and structures that support the bicycling practice. For example, The Bums on the Saddle bicycle store runs an online marketplace that sells new and second-hand bicycles, and bicycling gear. They also organize workshops on bicycle maintenance and safety. Other companies and non-profits that organize weekend bicycle rides, bicycling touring, and bicycle races have emerged from these communities. A bicycle-share system is being piloted on one of Bangalore's largest universities and in the central commercial areas of the city. Middle class bicycling communities are also increasingly being viewed as legitimate voices in urban planning. As the Introduction mentions, the Ride a Cycle foundation has successfully lobbied city municipal authorities to commission bicycling lanes in one city neighborhood. That a municipal government, which has to date focused on car infrastructure, is willing to invest time and resources in improving bicycling infrastructure in the city is clear evidence of the success of middle class bicycling's defensive distinctions and the collective identities that emerge out of them.

## 2.6. Conclusion: Cycling spaces and city futures

In the introduction to their edited volume on the cultural politics of the middle classes of India, Baviskar and Ray use RK Narayan's *Common Man* to highlight the transformation of Indian middle classes over the past five decades (Baviskar and Ray 2011). The *Common Man*, who has remained a relatively untouched observer of Indian politics over the years, has changed in one important way. He has graduated from riding a bicycle to driving a car. As his material

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<sup>29</sup> A sample presentation is available online here: <http://www.slideshare.net/mynk/byke-workshop-with-bangalore-bykers-club> (Last accessed 11/16/2013)

circumstances improve, the Common Man switched to what is purported to be the most appropriate mode of transport for his station in life, the personal automobile. In this paper, I ask why and how the Common Man, a member of India's middle classes, has returned to the bicycle, albeit a much nicer one.

This article has used social practice theory as an analytic frame to show that new middle class communities in the city of Bangalore promote and stabilize bicycling through the creation of *defensive distinctions*, which I define as distinctions that draw equally on class-based and ethics-based discourses. In doing so it demonstrates how ethical discourses are key to stabilizing environmental practices that have "low-status" connotations among groups that seek high-status. Analyzing the ethical dimensions of social practices is critical especially when it comes to eco-friendly practices that carry both implicit and explicit normative connotations. Considering the conditions under which social practices are actively framed as ethical acts helps understand how groups can deploy claims to the greater good to overcome social and cultural barriers, and adopt traditionally "low-status", but environmentally-sustainable practices.

This paper also demonstrates how the practices of class distinctions in urban India are fluid and constantly negotiated through individual and collective actions. As the middle classes begin to identify as bicyclists, they collectively modify what it means to be a bicyclist in urban India, modifying its social meaning from a practice of deprivation to an act of self-improvement, enjoyment, and environmentalism. In doing so, they retain for themselves the privilege that their class identities afford, despite rejecting that ever-present signifier of middle class status in India—the personal automobile.

The new middle classes of India are beginning to access and enjoy lifestyles that are increasingly similar to the Western model, and come with similar environmental impacts in terms of air pollution, water consumption, and carbon emissions (Myers and Kent 2003). Even though the middle classes currently represent a small fraction of the overall Indian population, ranging from 50 to 150 million (Baviskar and Ray 2011), their numbers are expected to increase in the coming years, if the forecasts on India's economic growth hold true. As previously described, car ownership and use has emerged as one of the cornerstones of a middle class existence, and also contributes significantly to their environmental footprints. Devising alternatives to automobile use has thus emerged as an important priority for actors interested in reducing the environmental impacts of the middle class lifestyle.

However, promoting eco-friendly practices of bicycling through the creation of distinctions is ethically problematic as it depends on the *othering* of the poor. As I describe in this paper, the growth of bicycling in Bangalore is critically dependent on two sets of distinctions that new middle class bicyclists make. The first are ethics-based distinctions they make between themselves and middle class car users. The second are class-based distinctions that exist with the working class "captive" or "utility" cyclist. The latter results in an ethically problematic *othering* of the poor, who are not considered a part of Bangalore's bicycling constituencies. This *othering* is especially problematic in a political context where the State is highly receptive to the needs of middle class communities, but has a record of marginalizing the urban poor. Further, it deepens the *stigma* associated with poor cycling identities.

As some relatively recent discussion on bicycling listservs demonstrates, middle class cyclists are becoming increasingly cognizant of this distinction. While some are critical of the exclusionary nature of middle class bicycling, others see this as a non-issue. More importantly, bicycling advocates who want better cycling infrastructure in the city are beginning to realize that for this to happen, they may need to build support and solidarity with working class cyclists, who far outnumber middle class cyclists. However, for a majority of Bangalore's bicyclists, bicycling in of itself is not a political act of resistance to automobiles or of solidarity with the working classes. Rather it is symbolized by an "economy of enjoyment" (as Stehlin 2014, 22 writes in the context of bicycling communities in San Francisco). This significantly limits the potential of bicycling communities to usher in more egalitarian roads and public spaces, especially as bicycling in Bangalore, like in other cities like San Francisco, is evolving into a distinctive and depoliticized middle class sub-culture.

The story of bicycling is reflective of and linked to broader transformations in the city of Bangalore. Since the liberalization of the Indian economy in 1990, Bangalore has transformed from a mid-size city filled with public sector enterprises, small-scale industries, and educational institutions, to a large metropolis enmeshed in the circuits of global commerce. The city has grown four-fold, and the networks of roads and highways that crisscross its terrains are signs of this expansion. Contestation over public spaces have erupted at multiple times, especially over decisions to widen roads to reduce city traffic. Bangalore's middle class bicyclists are interestingly positioned in relation to these conflicts. On the one hand, being middle class and invested in particular visions of modernity, they could presumably be in favor of a more "world-class" city with highways and smooth traffic. This is indeed what numerous scholars studying the middle classes of urban India have documented; that the middle classes are invested in the creation of "world-class" cities that leave no room for the poor (Baviskar 2003; Ghertner 2011a; Nair 2005). On the other hand, they are also bicyclists who appreciate pleasant, tree-lined avenues for their bicycling practice. As Bangalore contemplates its future, the story of bicycling could serve as an interesting counter-narrative to automobile-focused urban planning. However, the potential for bicycling practices and movements to bring about a more sustainable city will depend on the ability of middle class practitioners and activists to make broader connections to other constituencies in the city, including pedestrians, public transit users, and most importantly cyclists like the old man in the *dhoti* who rode past the rally.



## Chapter 3

# Networked ecological citizenship, the new middle classes and the provisioning of sustainable waste management in Bangalore, India<sup>30</sup>

### 3.1. Introduction: new consumers in India

Globalization and economic liberalization are enabling some individuals in emerging economies like India and China to access lifestyles similar to those common in the West (Myers and Kent 2004). The emergence of this “North in the South” poses major challenges to the project of sustainable consumption and production. Even as the bulk of the Indian population lags behind in access to basic necessities like energy, water and even food, a relatively small but still significant section of the population is adopting resource-intensive consumption patterns (Mawdsley 2004; Upadhyaya 2009). The size of this group is expected to expand in the next two decades. A 2007 McKinsey report “The Bird of Gold” on the Indian consumer market forecasts that total consumption in India will quadruple by 2025 (from 2005 levels). The next two decades will see more Indians driving cars, eating meat, owning appliances and embracing various branded goods and services (Ablett et al. 2007). At the same time, advertisements, film and television media, celebrities, businesses and the state promote and reinforce imagery where consumer lifestyles are the symbols of a modern, world-class nation (Fernandes 2000a; Fernandes 2009). India is set on a development trajectory that fuels and is fuelled by increasing consumption.

Even as a majority of Indians continue to lack access to basic goods and services, a relatively small but still significant section is consuming at considerably higher rates (Myers and Kent 2004; Mawdsley 2004). Studies have produced estimates of the size of these consumer classes. For example, Myers and Kent estimate that in the year 2000 there were 132 million new consumers in India, constituting 13 % of the population. They define new consumers as individuals belonging typically to four member households with a purchasing power of more than \$10,000 per annum in the year 2000. Using this definition, they identify 1.1 billion new consumers in over 20 countries. These new consumers, while accounting only for one eighth of India’s population, possess two fifths of the country’s purchasing power. They are responsible for 85 % of personal transport purchases and have CO<sub>2</sub> emissions 15 times greater than the rest of India, attributable to their high per-capita energy consumption (Myers and Kent 2003). Other studies have also produced estimates of emission disparities among different expenditure classes in India. Parikh et al estimate that in 2003-04, the emissions produced by the top 10% of urban India (roughly 30 million people) were about 15 times the bottom 10% of urban India, and about 27 times the emissions of the bottom 10% of rural India (Parikh et al. 2009). In sharp contrast to these numbers, policymakers have

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<sup>30</sup> This chapter is published as Anantharaman, Manisha. “Networked Ecological Citizenship, the New Middle Classes and the Provisioning of Sustainable Waste Management in Bangalore, India.” *Journal of Cleaner Production*, Special Volume: Sustainable Production, Consumption and Livelihoods: Global and Regional Research Perspectives, 63 (January 15, 2014): 173–83. doi:10.1016/j.jclepro.2013.08.041.

consistently termed India's emissions “development emissions”. However, as recent studies on emissions profiles across income classes have shown, not only are these new consumers important to study from an environmental perspective, but their emergence also has consequences for ecological equity and climate justice (Chakravarty and Ramana 2012).

While elevating the consumption levels of India's poor to ensure well-being, dignity and satisfaction should remain the main priority for research and policy, studying the environmental values, ethics and politics of individuals and communities from these high consuming sections is also vital to sustainable consumption and production efforts in India (Mawdsley 2004). This paper makes a contribution to this emerging literature by using ecological citizenship theory to investigate the environmental behaviors, ethics and politics of a particularly influential class of citizens, a network of new consumers in the city of Bangalore, India.

In this paper I investigate the emergence of an interest in pro-environmental behaviors among the new middle classes of Bangalore, India. I use ethnographic data to describe the process by which environmentally conscious and socio-economically privileged new middle class individuals practice and promote sustainable waste management initiatives as a way to contribute to better neighborhood, city and planetary environments. While research and policy focused on individual behavior change has been criticized in the literature coming out of the West as promoting the individualization and de-politicization of environmental responsibility (Maniates 2001) I show that this case presents interesting opportunities to examine the evolution and intersection of environmentalism, consumption and citizenship among a strategic section of the Indian population; the well-heeled, propertied, to restructure urban spaces (for work on middle class cultural and environmental politics that speaks to these themes see Baviskar 2003b; Baviskar 2011a; Baviskar and Ray 2011b; Ghertner 2012a).

I argue that collective action by a group of environmentally conscious, motivated and socio-economically privileged individuals enables pro-environmental behaviors within the new middle class home. I show how middle class actors invoke environmental discourses and create new social norms to encourage the adoption of recycling and composting activities in their communities. They set up communal infrastructures and processes that permit households to change their waste handling behaviors. These middle class designed systems of provision also depend on paid workers within and outside the home, whose labor is critical to the implementation of these initiatives. I relate these findings to work on ecological citizenship (Dobson 2003) and neighborhood networks (Kennedy 2011) and use this as a frame to analyze the collective and environmental politics of these initiatives.

Using ecological citizenship theory, I interpret these new middle class initiatives as collectively engendering behavioral, cultural and institutional change in the environmentally significant domain of waste management. I use the culturally rooted dynamics of the case, specifically the role of paid labor within and outside the home, to complicate theory. I contend that the concept of ecological citizenship, because of its focus on the citizenship practices of ecological debtors (the new middle classes) and limited treatment of the role of ecological creditors (paid labor from the working classes) fails to recognize the contributions of those actors, who through their livelihood practices, play a pivotal role in producing the systems that enable pro-environmental behaviors

among the elite. This critique is in alignment with the positions of Hayward (2006b; 2006a), Latta (2007) and Machin (2012) who have commented on the theory's silence on the "environmentalism of the poor" (Hayward 2006b, 445) and limited engagement with the 'degree of exclusion in existing polities' (Latta 2007, 378). I conclude by suggesting that a critical analysis of the processes and political arrangements that produce pro-environmental behaviors is vital to sustainable consumption and production research in emerging economies like India.

### 3.2. Ecological citizenship

In its most common form, citizenship is understood as the activity and status of individuals in the public realm and is primarily distinguished as liberal or civic republican, where the former focuses on the rights of citizens and the latter emphasizes duties and responsibilities (Dobson 2003). Citizenship is characterized by a contractual relationship between the state and its citizens in that the passive acceptance of citizenship rights is complimentary to the active exercise of citizen responsibility like political participation, economic self-reliance, making tax contributions from earned income, and in recent times, making consumer purchases. It is this reciprocal interaction where citizens discharge duties in exchange for being entitled to rights that forms the basis of most democratic political systems. Wrapped up in this definition is the territorial nature of liberal and civic republican citizenship, in that it operates within the boundaries of usually contiguous political spaces (Dobson 2003; Machin 2012).

The territorial, masculine and contractual nature of liberal and civic republican citizenship has led to the development of ideas of cosmopolitan and post-cosmopolitan citizenship and a particular form of post-cosmopolitan citizenship relevant to sustainability – namely, ecological citizenship (Dobson 2003). Ecological citizenship is defined as a non-reciprocal and non-territorial post-cosmopolitan citizenship that occurs both in the private and public spheres of life and has an explicit identification with the virtue of contributing to the common good. Dobson conceives of it as a practice, rather than a status that is accorded to individuals, and to consist of obligations as opposed to privileges. Ecological citizenship theorists see individual acts like recycling, composting or buying organic food as constituting acts of citizenship as they contribute to the public good, albeit through private action (Dobson 2003; Kennedy 2011; Seyfang 2006; Seyfang 2005). The ecological citizenship concept has been used to argue for a role for individual citizens to participate in the production of a more sustainable world (Revkin 2012). The concept emphasizes historical and contemporary obligations across national boundaries and calls on individuals to proactively reduce their personal environmental impacts in light of these obligations, while also collectively advocating for public policies that promote sustainability. A normative theory, it dictates that individuals and communities that occupy a greater share of the global ecological footprint have proportionally greater obligations to make changes to their own resource-consuming and waste-producing practices (Dobson 2003). In other words, those who (currently and historically) consume more have a greater responsibility not just to the planet but also to those whose lives are adversely affected by the environmental problems that are produced by high levels of consumption.

A major criticism leveled at the ecological citizenship framework is that its focus on individualized responsibility and action does not give adequate consideration to the significance of cultural or

institutional change through collective action or political participation (Kennedy 2011; Machin 2012). In response to this, recent work in Edmonton, Canada has related ecological citizenship to neighborhood networks to make the argument that when ecological citizens engage in a network, conditions for environmental politics are engendered (Kennedy 2011). By tracing an informal neighborhood network of households committed to reducing their consumption, Kennedy finds that participation in a network has multiple benefits that make individuals more likely to persist with changing (or reducing) consumption. This includes developing a sense of belonging, sharing knowledge and resources and providing mutual reinforcement. Moreover, ecological citizens who belong to a network have the ability to bring about cultural change, by changing mainstream norms through their collective conspicuous (non) consumption and by actively shaping their neighborhood contexts through various voluntary actions. As Kennedy (2011, 856–857) states “by focusing on a group of individuals within a neighborhood, the focus of ecological citizenship shifts to seeking to understand the potential for participation in social change rather than the potential to reduce individual environmental impact.” In other words, it goes from being a discussion of individual contributions to collective environmental politics.

By applying ecological citizenship theory in a developing world context, my work adds to this emerging body of work that relates individual behavioral changes and sustainable consumption with citizenship, collective action and environmental politics. “Networked” ecological citizenship theories provide a normative framework that allow for the interpretation and analysis of both individual contributions through changes in personal and household behavior, and through participation in collective politics and processes. I show how the normative dimensions underlying ecological citizenship theories can be used to analyze and highlight voluntary involvement by socio-economically privileged individuals in my case study. However, following Hayward (2006b), Latta (2007) and others, I use the culturally-situated dynamics of waste management in urban India to demonstrate that ecological citizenship theory has limited applicability in situations where pro-environmental behaviors are made possible by collective networks that are composed of people with different levels of obligation, capacity and social status, and where contractual relationships of service and servitude exist between members of these networks.

In the next section, I set the context for my case studies by reviewing the literature on the origin, composition and cultural politics of the new middle classes of Bangalore, India. I discuss how new middle class identity is associated with discourses around consumption and consumerism. I then introduce my case studies and use vignettes to present data collected through interviews and participant observation with individuals and communities who practice and promote sustainable waste management. I discuss my cases in relation to ecological citizenship theory to demonstrate that the privileged position that the new middle classes occupy within India’s cultural, social and economic context, especially in relation to working class waste workers, complicates and extends the ecological citizenship framework.

### 3.3. Green lifestyles among the new middle classes of Bangalore, India

#### 3.3.1. The new middle classes of Bangalore

The case studies I discuss here are based in the city of Bangalore in India- a once sleepy town of public sector employees and retirees that has transformed to a bustling megapolis in the past two decades (Upadhyaya 2009). Bangalore's transformation is emblematic of India's "growth" story. In the early 1990s, India embarked upon a series of financial reforms that reduced corporate taxes, began disinvestments of public sector entities and opened the country to foreign direct investment (Fernandes 2009). The liberalization of the Indian economy came at a time when economic globalization was gathering pace, and India caught the wave of a wider transformation in business and industry. India was well-positioned to take advantage of these changes and the Information Technology industry is a case in point (Upadhyaya and Vasavi 2008). The influx of foreign companies brought with it well-paying jobs and rising incomes, especially for the educated upper castes living in urban centers (Upadhyaya 2009). At the same time, with markets becoming increasingly globalized, foreign corporations entered the fray and new consumer goods arrived in the Indian market. Soon, millions had disposable incomes to partake in the consumption of commodities that were previously not available to them at affordable prices (Mawdsley 2004).

This moment marked the emergence of the new middle classes (NMC) of India, a globalizing and consuming class, whose identities are intimately tied to the policies and benefits of economic liberalization (Fernandes 2009).<sup>31</sup> The rise of the NMC has been accompanied by the growing prominence of media and advertising, which in turn contributes towards producing a "new middle Class identity that is associated with consumption practices of commodities made available through market liberalization" (Fernandes and Heller 2006, 504). These NMC are seen as the "vanguards of social modernization" in Indian society (Mawdsley 2004) and are frequently framed as the class group that the rest of India aspires to emulate (Fernandes 2000b).

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<sup>31</sup> In India, the origins of the middle classes have been traced back to colonial times. The British government promoted the emergence of a professional class involved in civil administration, law and other service sectors. Post-independence, the development of this middle class was directly aided by the state through a rapid expansion of the higher education system, creating a large body of technical and managerial experts to operate state and public sector enterprises (Mawdsley 2004). The new middle classes are distinguished from these 'old' middle classes mainly by higher levels of consumption and a governing association with the policies of liberalization (Fernandes 2009). It is important to note that the term middle class is more than just an income group- it can be defined in multiple ways (using sociological, cultural and economic criterion), and operates as much as a cultural construct as a sociological term. In other words, the discourses around middle classness are as important to their self-definition as how much they earn or what they buy (Fernandes 2000a). Consequently, enumerating the number of Indians who qualify/call themselves 'middle class' has always been a tricky proposition. Furthermore, the new middle class likely represent only a small section of the overall population that could count as middle class. However, despite their relatively small numbers (estimated to be about 20 million households or 90 million individuals (Ablett et al. 2007), they are an important group to not only because of their high consumption levels, but also because new middle class individuals are industry leaders, media professionals and NGO activists who shape public policy and opinion (Mawdsley 2004; Fernandes 2000b).

It is important to note that the consumption practices of the new middle classes cannot be reduced only to conspicuous consumption or status consumption. Much of the increased consumption is driven by changes in living arrangements, household composition and gender roles, family needs and familial negotiation (Wilhite 2008). Consumption for social performance is thought to be more important for some goods like cars and branded clothing (Upadhya 2009). Related to this are studies on how advertisements in India play on themes of inclusion and exclusion to encourage certain types of consumption (Wilhite 2008). However, what is important to note is that new middle class identity is as much about the discourses around consumption as it is about consumption itself (Fernandes 2009; Upadhya 2009).

Concomitant to the rise of the NMC, Bangalore emerged as the capital of the country's booming technology industry and is home to about 200,000 Information Technology and other professionalized workers who constitute one of the most visible portions of India's new middle classes (Upadhya 2009). The new middle classes of Bangalore work in multinational and Indian technology corporations, investment banks, media, healthcare and other service sectors (Upadhya and Vasavi 2008). Many of them come to the city from other parts of the country in search of these opportunities. Their lives and lifestyles are highly influenced by globalization- from their working hours which are linked up to US and UK times, to the kind of clothes they wear, the food they eat, where they live and what they buy. Symbols of new middle class lifestyles are visible in Bangalore's swanky malls, chic coffee shops, gated communities and car-clogged roads. The city is expanding, changing old neighborhoods and creating new ones. These rapid changes in the socio-economic landscape of labor, housing, production and consumption have in turn strained Bangalore's waste, water and transportation infrastructure, resulting in frequent traffic jams, overflowing garbage dumps and other urban ills. At the same time, many of Bangalore's urban poor and working classes have suffered displacement and continue to struggle for rights to land, livelihoods and basic services like piped water supply and electricity (Benjamin 2000).

It is in this context of rising consumption and changing urban landscapes that I investigate the emergence of an interest in pro-environmental behaviors and sustainable consumption among Bangalore's new middle classes, demonstrated by the presence of communities of city bicyclists, neighborhood waste management programs, terrace gardening groups and organic food stores in the city. These practices, albeit disparate and sometimes driven by other motivations like health (in the cycling and organic food case), sanitation (in the waste case) or city stewardship (in the cycling and waste case), have one thing in common - they are framed as environmentally-friendly and promoted as a way in which the eco-conscious new middle class individual can contribute to a better city and a better planet. This makes them relevant to a study of middle class environmental ethics, behaviors and politics.

### 3.3.2. Data and methodology

In this paper I focus on individuals and communities in Bangalore who practice and promote recycling and composting in their homes, neighborhoods and city. This paper is part of a larger research project on middle class environmental politics in Bangalore, India. I conducted 15 months of ethnographic fieldwork in Bangalore in 2011, 2012 and 2013 during which time I lived

in Bangalore among communities who were practicing and promoting pro-environmental behaviors like bicycling, recycling and composting. In this paper, I draw on 20 semi-structured interviews and site visits with individuals who are involved in practicing and promoting zero waste management in their neighborhoods and in the city. Many of these individuals are also engaged in other pro-environmental behaviors such as commute cycling and organic gardening. In addition to interviews, I attended public meetings on waste management and analyzed online materials such as blog posts, news articles, public forums on Facebook, and email listservs. The data I use in this paper was collected in late 2011 and early 2012, and a major portion of this article was written in May 2012. I have since updated the article with new online and ethnographic data collected during a 7-month period from August 2012 to March 2013.

For my research, I identified potential interviewees by tracking newspaper reports and social media posts on community waste management. Individuals were contacted via email and invited to participate in the study. In addition to this method of recruiting respondents, I also used snowball sampling to identify cases. This was particularly effective as almost all the individuals I interviewed were embedded in online and offline networks that focused on waste segregation, recycling and terrace gardening.

I should also note that I had lived and worked in Bangalore for 2 years and my knowledge of the city was useful in establishing the cultural context of the study. The cases selected for study are all in neighborhoods that are clearly identified as middle class by the individuals who live there. Most of these cases are situated in upscale gated communities in Bangalore, i.e. large residential developments consisting of multiple apartments that restrict entry using physical barriers and security guards. These complexes usually have multiple amenities like swimming pools, clubhouses and manicured lawns, and dedicated facilities/housekeeping staff employed to manage and maintain these spaces. A total of 17 communities were studied, of which 13 were gated complexes of differing sizes (ranging from 14 to 1300 apartments), and 4 were open layouts (ranging from 200 to 2500 homes).

Interviews usually lasted 2 to 4 hours and often involved a tour of the neighborhood or gated community to see waste management infrastructures and processes. Interview questions focused both on personal attitudes, motivations and behaviors, and on collective initiatives and infrastructures. Respondents were asked about how they became interested in household waste management, who they consulted with before and during the adoption of these behaviors, what kinds of information they referred to, the barriers they faced while adopting and performing recycling and composting, what this meant for other aspects of their daily life, and how their families and friends have reacted to their changed behavior. Individuals who were involved in setting up community programs and infrastructures were also asked about the process by which they accomplished this. This included questions such as “are you part of a team or group that organizes and monitors waste management in your neighborhood?”, “how did you become involved in this?”, “what kinds of activities does your group take up?” etc. Interviews were transcribed and coded to identify common themes, patterns and points of tension. Field notes were also coded for themes. Themes were then aggregated to identify key concepts such as “environment”, “citizen”, “neighborhood”, “networks” and “responsibility” and these concepts

were then related to each other and to the theoretical framework. The process of coding and analyzing the interviews was done iteratively to develop the arguments presented in this paper.

### 3.4. Household and neighborhood waste management in Bangalore

To place contemporary efforts at waste management among Bangalore's new middle classes in historical and cultural context, I put my case studies in conversation with existing scholarship to show how middle class attitudes towards waste and engagement with waste have changed over time. I then describe a typical decentralized waste management system, highlighting the role of volunteer leaders who conceptualize and administer these systems, and of domestic servants and paid waste workers whose labor is critical to the operations of these middle-class driven systems.

#### 3.4.1. Waste and the middle classes

Waste has been a site for middle class action and engagement for a number of years, and has been one of the main avenues for the expression of middle class civic and environmental concern (Mawdsley 2004). Consequently, much of the literature on middle class environmentalism and civic activism engages with how the middle classes have framed and acted on waste in the public and private sphere (for example, Ghertner 2012; Baviskar 2003). Writings on garbage and the public sphere in India observe that the middle classes neither took responsibility for the streets outside their homes, nor consequently for the rubbish they threw onto those streets (Chakrabarty 1991; Ghertner 2012; Kaviraj 1998). Some of these behaviors can be traced back to the caste system where waste work was reserved for individuals from certain castes, and contact with certain forms of waste (and the people who handled them) were considered impure (Beall 1997). In contemporary situations, this apathy to waste on the streets has partially given way to rhetoric of distancing and displacing of responsibility for waste, best exemplified by a *bourgeoisie environmentalism* where middle class "environmentalists" claim that the urban poor, especially slum dwellers, are the source of urban filth and decay, and that their removal is necessary for the creation and maintenance of green and healthy cities (Baviskar 2003; Baviskar 2011). Solid waste has been used strategically in these efforts to frame aesthetic preferences as environmental and public health concerns (Ghertner 2012). This is closely related to the project of world-class city making where urban elites, business leaders and the state work together to fashion Indian metropolises in the image of New York and London (Ghertner 2012). In line with this mission, some middle class groups have distanced and displaced responsibility for environmental decay (i.e. solid waste in city spaces) to the urban poor, and used this as means to consolidate their claims to the urban commons (Baviskar 2003; Baviskar 2011; Ghertner 2012; Mawdsley 2004).

In terms of daily practice, within the middle class home, waste work, like most other household chores, is primarily done by women and by domestic servants (Wilhite 2008). Traditionally, this waste work also included the sorting and selling of recyclables to itinerant hawkers or to *kabbadiwalas* (scrap dealers) (Beall 1997). Recyclables like newspapers, plastic and glass bottles, milk packets and cardboard boxes were sold for small quantities of money or for other goods like plastic buckets or utensils. This was one among the many thrifty habits the middle classes of pre-liberalization India practiced, such as repairing goods several times before throwing them away,



covering valuable items like TVs and cars with plastic covers for protection and reusing old clothes to make cleaning cloths. These thrifty habits are still routinely practiced by other middle class and working class groups.

However, as I discovered in Bangalore, these practices are becoming increasingly rare among the new middle classes, for a number of reasons. High incomes have more or less removed any economic motivation for recycling as the small quantities of money made from selling recyclables are negligible compared to the overall income and expenditure in many new middle class households. Moreover, with the increasing importance of conspicuous consumption, especially among younger consumers, thrift no longer appears to be a valued trait within this class group (Mathur 2010). As more middle class women join the workforce, waste work in many homes has fallen solely to domestic workers, and recycling is no longer a priority for the middle class householder. Changes in urban architecture and real estate prices have also made this traditional form of recycling through the informal sector less common. For example, many new middle class families live within gated communities or “secure” high-rise apartments where itinerant hawkers and other vendors are not allowed entry. Consequently, the practice of hawkers coming to doorsteps to buy recyclables in exchange for money or other goods has reduced considerably. All these factors have resulted in the decline among the new middle classes of these older, traditional recycling systems driven by thrift and supported by the informal waste economy.

#### 3.4.2. Home waste management 2.0

The past decade has seen the emergence of new recycling and composting initiatives that focus on managing waste generated in new middle class homes. In the city of Bangalore, this has come mainly in the form of decentralized solid waste management programs implemented in middle class neighborhoods by local Non-Governmental Organizations, Residents Welfare Associations and community groups. Most of these programs require segregation at source, where dry and wet waste is collected separately in the home (primary segregation). The dry waste is further separated into different types of recyclables (secondary and tertiary segregation), and sold to different buyers, while wet waste is either composted, or sent to the landfill. The term zero-waste is often used to describe these waste management programs. In general, most of these initiatives operate with limited assistance from government bodies (like the city municipality), and are run by residents in conjunction with NGOs and various vendors. In addition to these waste management programs, other waste related solutions have also begun to gather momentum.

Taken together, these programs and practices represent interesting deviations from the apathy and distancing that typically characterizes middle class attitudes to solid waste. Instead, what is observed is an increasing individualization of responsibility for waste generated within the home, and the rising popularity of scientific solutions to the solid waste problem. Managing waste is also being framed as one of the primary ways in which middle class households can go green and reduce the environmental impacts of their lifestyles.

In the following sections, I use ethnographic narratives to describe how specific social, cultural and institutional factors influence how home waste management practices through recycling and

composting are engendered in new middle class homes and neighborhoods. The narratives describe how the adoption process requires the mobilization and incorporation of various actors from residents and domestic workers, to corporate vendors and the city government. I show how such neighborhood-based efforts replicate and scale to city-wide waste management schemes and initiatives. I argue that these practices necessitate the creation and maintenance of communities of practitioners who collectively enact changes in structural and social contexts that enable these sustainable behaviors, thereby practicing a form of ecological citizenship.

*Case 1: Residential waste management: changing behavior in the home and beyond*

My search for examples of zero waste management systems led me to Project Green X (*name changed*); a residential waste management program operating in one of Bangalore's large gated communities. This waste management program was launched in 2009 by a few residents who were members of the local chapter of the Rotary Club. The following ethnographic vignette describes my visit to this gated community and my interviews with some of Project Green X's leaders.

I arrive at the gated complex that is located in one of Bangalore's most expensive localities and is home to a number of Information Technology companies. The complex is a large development consisting of over a thousand upscale residential apartments and some corporate offices. I am scheduled to meet with one of the women who spearheaded the project. I meet her in the parking lot of one of the large apartment blocks (of which there are 16), and she quickly ushers me towards a cart being pushed by two young women in green uniforms. "You're a little late, but just in time to see the collection", she says. She then explains the strategy that Project Green X uses to implement waste segregation in their complex: each household is given three separate bins for different types of waste; a blue one for dry waste, green for wet waste and a black bin for hazardous waste. Apartment residents and the domestic help they employ are required to segregate the garbage at source, making sure never to mix dry with wet. Housekeeping staff employed by the complex go to each of these homes and collect the segregated garbage. Wet waste is collected every day, while dry waste is collected twice a week. The wet waste is then sent to the landfill, though plans are afoot to get an organic waste composter for the complex that will make compost out of the waste. Many residents already compost their waste in their homes using a popular product called *Daily Dump*, I'm told.

The dry waste is taken to a shed in the back of the complex. We follow the cart being pushed by these two quiet young women to the shed where we see two other women sitting inside, amidst ceiling high piles of papers and plastics, sorting through the refuse. My interviewee explains to me that the women are employed to do secondary and tertiary levels of segregation, where paper is separated from plastics, and high value items like milk packets, shampoo bottles and glass are set aside. We are joined by a young man who is introduced to me as the supervisor of Project Green X. It is his job to make sure that the whole operation runs smoothly. My guide tells me that the salaries of the supervisor and the women collecting and segregating waste are paid with the money the complex earns from selling the recyclables to different vendors. She tells me that the plastic covers are sold to a company that uses them to

lay tar roads, paper is sold to a paper recycler and the milk packets and glass bottles are sold to local *kabbadiwalas* (neighborhood scrap dealers, usually from the informal sector).

After a quick chat with the supervisor and his assistants, she takes me to the clubhouse and restaurant in the complex. She quickly orders a cup of tea for me and we sit down for the formal interview. We are joined by another lady who is also on the project's committee. Both my interviewees are middle-aged women and their enthusiasm to talk indicates that they are committed to this initiative. They spend a substantial amount of time every week coordinating different aspects of the project. In the course of the interview, I ask them about how the project started, how it is implemented and what the challenges have been. They tell me that what started as a discussion between a few friends grew in momentum as they reached out to their neighbors. A couple of residents took on leadership roles and obtained approval and funding for the waste segregation shed from the property developer. We also discuss how the committee tries to encourage and enforce segregation. The ladies tell me that before the project launched, they spent a lot of time educating residents about the need for waste management and recycling. They organized presentations where they invited residents to come and learn about Bangalore's garbage problem and the environmental and economic benefits of recycling. They also focused on training domestic help and housekeeping staff, as the latter are ultimately responsible for the hands-on collection and transportation of the waste.

The organizers also have various tactics to encourage and compel segregation. They periodically organize events to reinforce the message of the program. The homes that are part of the initiative have stickers on their mailboxes that say *I am green! Are you?* The committee also organizes surprise bi-monthly checks where block champions (committee members who are in charge in each block) go with housekeeping staff to individual homes to see if garbage is being segregated properly. As my interviewee says: *"The housekeeping staff tells us when an apartment is not segregating as they are supposed to. They don't say anything to them themselves, as the residents will not listen to them. It is our job to follow up."* They tell me that persistence and peer pressure is the key to making sure everyone segregates. Not everyone in the 1000 apartment-strong complex is compliant but there are more apartments participating in the zero waste management initiative, than not.

Project Green X is not alone in how it operates. Many of Bangalore's gated communities and apartment complexes have adopted similar waste management programs. In general, these programs are initiated by a group of motivated residents who voluntarily take on leadership roles and assemble the different components of the waste management apparatus. This involves convincing their neighbors about the need for waste management, contacting "experts" in the city and practitioners in other communities for best practices, working with building owners (usually the real estate developer) to build any required infrastructure, and training housekeeping staff and domestic workers to collect and segregate waste. They repackage and re-envision "old" practices using new labels, and through this repackaging help validate and legitimize these activities again (e.g. recycling going from a thrifty practice to a green practice).

These leaders also take on an active role in monitoring the day-to-day operations of the program. Using multiple tactics such as awareness drives, special events, signage and old-fashioned face-to-face goading, they encourage and enforce the segregation of waste within households. For example, in another apartment complex, the “Lady Generals” who run the waste management initiative display the names of non-compliant residents on a notice board, publically identifying and shaming them. Through these actions, these leaders are trying to make waste segregation and recycling the new norm in these neighborhoods.<sup>32</sup> These attempts to create new norms around waste management have not always been successful, and there are some cases where a waste management initiative has been disbanded because of resistance from some residents, usually related to concerns about health and aesthetics. In other cases, waste management systems that have been set up with great enthusiasm have fallen into disrepair in the absence of monitoring by resident volunteers. In all these cases it is clear that the success of these programs is highly dependent on the ability of leaders to convince and compel their neighbors, manage workers and monitor the system. These volunteers actively draw on their social capital and networks to organize systems that can provision sustainable waste management behaviors in their neighborhoods.

The infrastructure and processes set up at the level of the neighborhood and community in turn produce and are reinforced by changes in household behaviors. In an interview with a housewife who is part of a community waste management initiative, she explains how she ensures the segregation of waste within her home

“I became interested in waste management and started separating my waste at home. Of course, my husband and sons were initially not that keen, but they have now begun to follow my lead. The waste is separated into two main categories, dry and wet, inside my house. I have instructed my cook to strain vegetable and fruit peels and keep them aside, which I then put in my compost pot. Leftover food is thrown away as my compost doesn’t do well if I add cooked food to it. My maid (who sweeps the floor and empties the dustbins) knows that all paper, plastic and metals should go into one bag and only dust and other things should be discarded. I monitor it occasionally, but right now my cook and maid know what to do with the different types of waste. My sons have been harder to train, but they are getting the idea too” Shanthi, 52.

*Case 2: Circulation and Institutionalization: Experts, Networks and Policies*

The emergence of city-wide coordination groups that promote solid waste management has helped replicate the set-up described in the first case in more middle class neighborhoods and complexes. One such group is the Solid Waste Management Roundtable (SWMRT), which is a consortium of non-governmental organizations, advocacy groups, environmental entrepreneurs and individual volunteers who function as waste management facilitators in the city of Bangalore. In a visit with

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<sup>32</sup> This suggests that normative messaging can be a useful way of encouraging and enforcing behavior change in developing world contexts, just like they are in the West (Schultz 1999; Schultz 2002).

a SWMRT member to an apartment complex that was interested in going zero waste, I got a sense of how these ideas circulate and replicate, and how SWMRT enables this process.

The complex we visited was a relatively new luxury gated community in the outskirts of North Bangalore. During the visit, the SWMRT representative made a presentation to the residents of the apartment complex on why waste management was the need of the hour. His PowerPoint slides talked about multiple problems ranging from the threat of global warming (especially in terms of how waste contributes to greenhouse gas emissions) to the plight of villages that abut landfills. The presentation included pictures of small children sitting on heaps of garbage in a landfill, eliciting sighs from the assembled audience. A graphic picture of a cow's innards filled with plastic covers provoked gasps. After this general introduction on *why* waste management is important, he moved on to talking about the *how*. He ran through the different steps that comprise the day-to-day operations of a waste management program. While talking about each of these aspects, he told the assembled audience about tips and techniques that had worked in other programs in Bangalore. For example, he spent a fair amount of time talking about the tactics that other successful waste management programs use to encourage and enforce compliance among residents, such as putting up signs on mailboxes, organizing special events, refusing to collect waste if it is not segregated, getting children involved and organizing competitions, among others. He also suggested that the apartment complex give whatever money was collected from selling recyclables to housekeeping staff and domestic workers, to compensate them for the extra work and motivate them to do it properly.

In addition to aiding the process of behavior change through information provision, one of the most important things that SWMRT does is put the sellers of recyclables (i.e. the gated complexes) in touch with buyers. For instance, we were accompanied on this trip by a contractor from a large Indian corporation that runs a Wealth out of Waste (WOW) program. This corporation buys paper and other recyclable items from households and businesses and then either recycles it in-house or diverts it to other recycling streams in the formal and informal sector. When I asked my interviewee about how this worked, he told me:

“This is what we do- we put apartment complexes in touch with vendors who will go to the apartment once or twice a week, collect the segregated recyclables, pay the stipulated amount for the items and take it to scrap dealers for recycling (a modern, corporate, formalized hawker or kabaddiwala, I think). We work with multiple contractors like this one- different ones for different parts of the city. In the absence of a BBMP (city municipality) recycling system, private vendors step in and help collect the recyclables. If you don't have infrastructure, use personal relationships to get things done and make it convenient”, Suraj, 84.

This SWMRT member and others like him have emerged as “experts” on waste management in Bangalore. They become the go to people for questions on how to set up and maintain a community waste management program. In the absence of institutionalized mechanisms for recycling and

composting, these people and the organizations they are involved with transfer information, put buyers in touch with sellers, communicate best practices from one site to another and help troubleshoot when problems arise. During our visit, I witnessed an incident that typified this troubleshooting aspect of SWMRT's work.

On our tour of the gated complex, we went to see the sewage treatment plant. The building that housed the plant also had an organic waste composter, which was currently not in operation. The organic waste composter had been put in during construction because of a city ordinance that required all new real estate developments to install and operate one in their complexes. However, this one was not currently being used. When asked about this, the facilities manager of the complex (who is employed by the real estate developer to maintain the complex, deal with water and waste issues, monitor security etc.) told us that he was not able to use the machine as he did not have proper training and had various questions about how to operate it. The SWMRT member immediately stepped in with some answers to his questions, and also said that he would send someone to the complex to train the facilities manager. When I revisited the complex six months after this initial visit, the organic waste composter was in operation and being used to compost the wet waste collected in the complex.

SWMRT members focus on both the behavioral and structural barriers that constrain the adoption of waste management practices. In addition to setting buyers up with sellers, SWMRT members emphasize proper training of the facilities staff, i.e. the manager and the workers who are employed to maintain the lawns, clean the pools, sweep the common areas and collect waste. Throughout our visit the SWMRT representative kept communicating with the facilities manager (usually in Kannada, the local language, though he switched to English when he spoke to the residents). They discussed the nitty-gritties of the process, such as where the dry waste will be stored, what days it will be collected and who will be the point of contact. It is clear that these employed maintenance and waste workers are as critical to the success of this initiative as the residents or the SWMRT expert.

Before we left, I asked the lady who invited SWMRT here how she heard about their work. She told me that before moving here, she used to live in another apartment complex in the city, where SWMRT had made a presentation a year ago and helped the complex become zero waste. She had been in touch with this SWMRT representative ever since, and had even taken him to her children's school to give a talk on waste management and institute a zero waste program there. When she moved to this new complex she wanted to continue managing her waste, and contacted him for help.

SWMRT's message spreads through workplace, neighborhood and online social networks to different parts of the city, and their work has been covered in many media outlets. According to the group's website, they have managed to set up waste management programs in 18,000

households and 180 institutions in the city of Bangalore.<sup>33</sup> In the space of a few years, this group has emerged as a key player in waste management in the city.

Many of the waste management advocates in the city, including SWMRT members, are middle-aged housewives or retired male professionals, whose engagement with waste started off with the intention of cleaning up their neighborhoods and improving the environmental quality of their surroundings. It is through the course of their (often failed) efforts to clean up their streets that they began to encounter the environmental dimensions of the waste problem. As one of my informants says:

*“I realized cleaning up won’t work. The road will just get dirty again the next day. If we are to avoid waste on the roads, then it has to be diverted at source, and for that segregation is essential. The idea of segregation is that, if you separate waste into different components at source, and each of these components can be dealt with in a different way.”*

SWMRT and other middle class waste management advocates frame waste as a predominantly environmental and resource issue. This narrative is summarized by a Facebook post from a prominent waste management advocacy group in the city. As the post says:

*“Segregate waste and improve the economy, environment, rag picker livelihoods, water quality, air quality and lives of villages around Bangalore. Put back precious recyclable material back into the loop and feel awesome about yourself. OR. Don’t segregate waste and pay a fine. It really is a no-brainer, isn’t it?”*

These middle class advocates point out that what is dismissed as piles of putrid trash by the majority of the city’s middle class residents actually contain a number of precious resources that could be recycled back into use. The bulk of Indian waste is organic in nature and can be used to make compost for agriculture. These methods of managing waste also reduce the need for dumping in landfills, thereby avoiding environmental costs like greenhouse gas emissions, polluted land and water. By framing garbage as an environmental issue they advocate for solutions that, in their view, minimize the environmental impacts of garbage, while extracting the maximum resources out of it. The prerequisite for this, according to this group, is the segregation of waste at source by generators. Consequently, they have focused their efforts on figuring out how to make waste generators, particularly middle class households, change their behaviors and segregate waste at home. Post-segregation of waste, recycling, composting, biomethanization and biogas are among the solutions these actors advocate. They actively oppose the landfilling of waste.

In addition to propagating decentralized waste management systems in private (and mainly middle class) spaces like apartment complexes, gated communities and commercial complexes, SWMRT has been trying to change the city municipality’s waste handling and disposal systems. SWMRT members tell me that they feel that the city municipality has failed to deliver efficient, reliable and environmentally sound waste management systems. For one, despite having a door-to-door system

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<sup>33</sup> As depicted on this Green Map on their website:  
[http://swmrt.com/index.php?option=com\\_content&view=article&id=57&Itemid=83](http://swmrt.com/index.php?option=com_content&view=article&id=57&Itemid=83) (last accessed 8 June 2012)

of waste collection in place, a significant amount of waste reaches the street, constituting a public health hazard. Further, the municipality's waste disposal systems are in violation of the Municipal Solid Waste Rules 2000, which state that only reject materials that cannot be recycled or composted should be landfilled. The group first took these issues to the government through a public forum called the *lok adalat*.<sup>34</sup> It used this forum to petition the local government to set up decentralized dry waste management services. After two years of trying to lobby for the installation of decentralized waste collection and segregation centers in the city, SWMRT decided to intensify their advocacy and lobbying efforts, and filed a Public Interest Litigation in the Karnataka State High Court (the apex court in the state of Karnataka where Bangalore is located). Since then, there has been a flurry of action in the city, from the courts, the government and from civil society actors. In response to the Public Interest Litigation, the High Court passed a ruling calling for an end to the landfilling of waste and mandating the segregation of waste at source by all households and commercial establishments. It also ruled that "bulk generators" of waste (defined as apartment complexes of more than 10 households, and all commercial establishments) be required to process their waste in-house, and has asked the corporation to set up decentralized waste processing units in the city. These rulings and policy actions dovetail closely with the agendas and stated objectives of middle class waste management activist groups like SWMRT.

### 3.5. Behavior change through networked ecological citizenships?

In the narratives presented here, a small group of motivated individuals take on leadership roles in instituting and managing waste management schemes in their neighborhoods. They do this in multiple ways: they encourage their neighbors to see waste management as an important and meaningful activity by conducting awareness campaigns, they create new norms and discourses around waste and its management, they organize and train employed workers to collect and segregate waste, and they monitor and enforce waste management in their localities using multiple strategies.

Many of these individuals have also gone on to form and participate in city-wide advocacy and coordination networks, and emerged as "experts" on waste management in Bangalore. These individuals collectively enact changes in their cultural and social contexts to reduce the informational, normative and structural barriers to household behavioral change. They also engage with local government to institutionalize sustainable waste management practices.

Ecological citizenship theory asserts that individuals and communities that occupy a greater share of the global ecological footprint, i.e. ecological debtors, have proportionally greater obligations to make changes to their own resource-consuming and waste producing-practices (Dobson 2003). Applying Andrew Dobson's normative theory of ecological citizenship, one can interpret the actions carried out by these individuals to constitute the discharging of historical and contemporary obligations towards ameliorating relationships of identifiable harm. While Dobson discusses these

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<sup>34</sup> Translates to *People's Court*. It is an alternative avenue for dispute resolution that is hedged by the State High Court through the Court Legal Service Committee. *Lok Adalat* benches tend to have 'expert' members. For example, the solid waste management case was heard by a bench comprising a sitting High Court judge, and a retired member of the Karnataka State Forest Department, who is considered to be an expert of Bangalore's environmental problems.



obligations in a primarily transnational sense (as horizontal relationships of ecological debt and credit existing between car drivers in the US and the people of Maldives for example), by extension these ties of obligation and identifiable harm exist between people within the same national borders.

The new middle classes are among India's highest footprint consumers (Myers and Kent 2003) and one significant externality of their consumption practices is the waste that they produce within their homes (Baviskar 2011; Mawdsley 2004). In the cases I describe in my paper, new middle class individuals recognize that their household waste, if disposed in landfills or dumped on streets, produces environmental and public health impacts that are predominantly experienced by the poor, especially those who live in villages that abut landfills, and by animals and the ecosystem. As the producers of wastes that either rot in landfills polluting land and water or lie discarded on streets jeopardizing public and animal health, they have an obligation to take up public and private actions to address these impacts. These individuals call on these obligations and discourses of responsibility to motivate themselves and their communities to adopt pro-environmental behaviors like recycling and composting. By taking ownership of the environmental impacts of the waste they generate and by spending time, effort and money on addressing these impacts using a set of solutions they deem appropriate, they perceive their actions as benefiting diverse human and non-human constituencies. Moreover, the expression of this ecological citizenship is inherently collective. These individuals reach out to others to form networks and coalitions within their neighborhoods and across the city. As these coalitions grow, their spheres of influence increase and they begin to be able to change public policies. This makes them potent agents for cultural and institutional change.

In the cases I describe here, the collective dimensions of these processes are essential to its private expression. For one, in the absence of infrastructure, waste management requires collective coordination to ease structural barriers. Also, while some form of waste management has existed among Indians for a long time, waste continues to be met with apathy, distancing or disgust in many quarters of middle class Indian society (Kaviraj 1998; Ghertner 2012). In such a situation, framing waste as an environmental issue where every individual has a responsibility to take ownership and contribute to its amelioration is a relatively new project. This requires the creation of new norms and discourses to support it, which cannot be done by individuals alone. Finally, through networked collective action, these initiatives are beginning to scale from the level of households and neighborhoods to city-wide schemes. The work of leaders who work collectively through networks is critical to all these processes. This echoes findings by Kennedy in Edmonton, Canada where the participation of ecological citizens in a network engenders cultural and structural change (Kennedy 2011).

The individuals and communities I describe actively leverage their class-derived cultural, social and economic capital to effect changes to their structural and social contexts. The preferences and actions of urban new middle classes have tangible impacts on urban spaces, as previous work on slum demolitions has shown (Ghertner 2012). Middle class groups have access to certain key technologies and relationships that enables the sort of collective action we see here. First, Internet access has made it much easier for groups across the city to network, coordinate and share

knowledge and resources. It has also enabled the detailed chronicling of various successful efforts on blogs, Facebook and websites, which increases the circulation of these ideas. Middle class groups have relationships with various media outlets and their concerns and actions get frequent coverage, giving them more exposure (Upadhyaya 2009). Some middle class individuals also have the ability to access bureaucrats and other government officials, unlike members of the working classes, which means their ability to influence policy agendas are also greater (Harriss 2006). Recent work in Delhi and elsewhere has also shown that middle class groups use the Courts and the judiciary to push forward their projects through Public Interest Litigations (Baviskar 2011; Ghertner 2012), a strategy used by SWMRT members too. In summary, the elite positions of new middle class individuals, and their access to social, economic and cultural capital enables them to be effective networked ecological citizens who can affect cultural and institutional change. Even if the total number of waste management adopters or advocates is small compared to the population of Bangalore, they can have effects on urban landscapes that are disproportionate to their size.

Recent developments in Bangalore point to this rising influence of middle class waste management advocates. In October 2012, the Bangalore city municipality passed legislation mandating segregation of waste at source in households and businesses. This landmark decision came in response to a series of protests by the residents of villages that abut the large landfills outside Bangalore, where city trash is dumped indiscriminately. The villagers were protesting the contamination of their land and water bodies by leachates from the landfill, and the resultant illnesses and deaths in their communities. City waste management advocates, including the ones I describe in this paper, came out in support of these protests and leveraged them to push forward reforms in the waste management system through the judiciary. In response to this crisis, and under direction from the Karnataka State High Court, the city municipality closed the landfill and mandated segregation of waste at source, recycling of dry waste and composting of wet waste. While the infrastructures for city-wide zero waste management are yet to be commissioned, the priorities and proposals of the new middle classes are central to these developments.

While ecological citizenship theory in general assumes that individuals adopt pro-environmental behaviors out of their political obligations to ecological creditors and motivated by an internal commitment to do justice (Dobson 2003), it is also critical to note that these actions also produce positive outcomes for the ecological debtors themselves. The new middle classes benefit directly from living in cleaner cities with better air and water quality. Their desires to participate in initiatives that clean up the city directly reflect local anxieties about degrading environmental quality and lifestyles. Clean and green cities also mesh well with middle class aspirations to live in world-class cities (Ghertner 2012). Soper's formulation of "alternative hedonisms" where she sees people entering into pro-environmental practices for both self and other oriented reasons (Soper 2007) provides a useful extension to the ecological citizenship concept as it allows these activities to be understood as not just being purely altruistic or derived only from a political obligation to do justice, but also encompassing self-interest.

Thus, ecological citizenship theory helps analyze and highlight the voluntary pro-environmental behaviors taken up by the socio-economically privileged and high-consuming new middle classes in addressing the environmental impacts of their lifestyles. It helps articulate the latent potential in

these networked communities to bring about behavioral, cultural and institutional change through individual and collective actions.

However, the theory's focus on the obligations of ecological debtors and relative silence on the rights and roles of ecological creditors limits its applicability and hence its usefulness for examining the potential for equity and justice in proposed debtor-creditor relationships. Hayward best summarizes this critique of ecological citizenship theory saying "the environmentalism of the poor seems to stand in an unclear or problematic relationship to ecological citizenship" (Hayward 2006a, 445). Dobson in a response to Hayward's critique defends his formulation by saying that ecological citizenship is not a status or an entitlement but a practice, and consequently, not a privilege that one seeks to achieve but an obligation that one tries to avoid. Individuals can find their place in the ecological citizenship structure by asking "do I owe or am I owed" (Dobson 2006, 449), 449). Latta in an acute assessment points out that one of the biggest problems with the ecological citizenship framework is that it ignores existing inequalities in social status and political power. To quote Latta, "An emphasis on obligation as the core feature of ecological citizenship necessarily leads to a focus on already powerful actors as the key protagonists" (Latta 2007, 385), while reducing the roles of the so-called "recipients of ecological justice" (Dobson 2006, 449), 449) to constitute nothing more than bystanders with limited agency in the ecological citizenship polity (Latta 2007).

Applying these critiques to the empirical case I present in this paper shows how the theory, with its normative assumptions, can replicate the unequal social hierarchies that produce imbalanced consumption patterns and unequal ecological footprints in the first place. The systems described in this paper are dependent on a set of actors whose job descriptions have older cultural roots. The powerfully connected elite actors are reinforced both by paid workers who sit in sheds and sort through waste and the domestic servants who act as conduits in enforcing good behavior amongst elites. As Ray and Qayyum (2011) show in their work, these *cultures of servitude* are an integral part of middle class lifestyles and politics. The waste management systems being promoted by the middle classes rely on paid labor within the home and in the community to carry out waste handling functions such as segregation and transport, and consequently replicate these cultures of servitude. These waste workers are recruited from the city's urban poor whose ecological footprints are significantly smaller than those of the middle classes (Parikh et al. 2009), and would consequently be classified as ecological creditors. However, because of its focus on obligations, and voluntary and internally-driven exercise of citizenship, ecological theory obscures the roles of individuals who *do not* themselves live unsustainably.

In my cases, the fact that such ecological creditors, who are themselves "owed justice", are actively engaged in producing the pro-environmental behaviors of the ecological debtors, further problematizes this formulation. In essence, do the waste workers I describe in my narratives count as ecological citizens as per Dobson's definition? How does ecological citizenship understand the livelihood practices of the poor whose actions produce the very same positive environmental outcomes that are produced by the voluntary and "virtuous" actions of the well-off? While Dobson asserts that claiming an ecological citizen identity is not a privilege but an obligation, its normative

connotations unwittingly laud the often marginal voluntary actions of the ecological debtors without bestowing the same “status” to those who already live within ecological bounds.

In summary, my case study shows that while ecological citizenship theory helps identify the potential that networked elite action has for engendering sustainability, the culturally-situated dynamics of waste management in urban India demonstrates that the theory has limited applicability in situations where pro-environmental behaviors are made possible by collective networks that are composed of people with different levels of obligation, capacity and social status, and where contractual relationships of service and servitude exist between members of these networks. This analysis points to the need for a focus on the processes and political arrangements that produce ecological citizenships and pro-environmental behaviors, and an explicit engagement with the roles, capacities, priorities and powers of the diverse actors who are involved in these processes. As Latta suggests, recasting ecological citizenship as a democratic process with a focus on the conflicts that shape it evaluates the kinds of relations that might promote a just and sustainable society (Latta 2007). For the waste management cases I discussed here, this would render the dynamics of voluntary action and incorporation in ecological citizenship more visible and allow an evaluation of the differential contribution of actors in relation to these positionalities.

### **3.6. Conclusion: The democratic politics of sustainable practices**

Rising consumption-driven greenhouse gas emissions in India necessitate investigations of the environmental behaviors, ethics and politics of the new middle classes, a strategic section of the Indian population (Mawdsley 2004). The new middle classes are important to sustainable consumption and production efforts not only because of their resource-intensive consumption patterns, but also because of the hegemonic role they play in the political and cultural imaginaries of the nation (Fernandes 2009; Upadhyaya 2009). My work represents one of the first studies to carry out an ethnographic investigation of a pro-environmental behavior in India and speaks to the intersection of environmentalism, consumption and citizenship research. Recycling or composting do not, by themselves, address or ameliorate the consumption of the new middle classes. However, they can reduce the negative environmental impacts produced by the landfilling and burning of the increased amounts of waste that are being produced as a direct consequence of this heightened consumption. More importantly, they are widely considered to constitute a fundamental component of a pro-environmental lifestyle. This makes them pertinent to sustainable consumption and production efforts.

In this paper I have described the process by which particular types of pro-environmental behavior is emerging among Bangalore’s new middle classes. Waste management is being implemented in Bangalore through the work of individuals who collectively enact changes in their cultural and structural contexts to enable these practices. The case studies also demonstrate that these systems are highly dependent on local actors whose roles and positions have older cultural roots, such as the domestic servants and waste workers who are often responsible for the actual implementation of these systems.

By applying ecological citizenship theory (Dobson 2003) and recent work on the role of neighborhood networks in changing behaviors (Kennedy 2011) I analyze and highlight how socio-economically privileged individuals from the new middle classes of Bangalore can simultaneously change personal behaviors, while also participating in collective action to change norms, institutions and policies to support pro-environmental behaviors. Thus, elite volunteerism is a potent force in urban India and can produce significant behavioral, cultural and structural changes. Through my narratives I also show how the implementation of these middle class conceptualized waste management systems is dependent on replicating a culture of servitude (Ray and Qayuum 2011) within and outside the home, where waste work is delegated to paid domestic servants, housekeeping staff and other workers. While this will come as an unsurprising finding for anyone familiar with Indian cultural politics, it provokes certain questions for theoretical formulations such as ecological citizenship.

I contribute to theoretical and empirical work on ecological citizenship by showing how the theory's focus on the political obligations of ecological debtors, who are often also the socio-economically privileged, fails to see the contributions of those actors (the domestic servants and neighborhood waste workers), who through their livelihood practices play a critical role in producing the systems that make pro-environmental behaviors possible among the elite. This critique is in alignment with Hayward (2006b; 2006a), Latta (2007) and Machin (2012) and provides an empirical instance of ecological citizenship's inability to conceptualize the "environmentalism of the poor".

The theoretical problematic my case substantiates provokes avenues for further empirical research. Critical ethnographic studies that look at the social, cultural and political processes that produce behaviors that are recognizable as pro-environmental or constituting ecological citizenships are important to sustainable consumption and production research. Such research would have to look at practices both within and outside the home, and also pay explicit attention to the roles, capacities, status and powers of the different actors who are involved in producing these behaviors. A focus on the citizen relations that produce sustainability, however defined, will help ascertain how sustainable consumption and production relates to social and environmental justice concerns.

The narratives presented here also provoke new lines of inquiry and analysis for this case. As the waste management movements I describe scale from neighborhood to city-wide initiatives, the environmental politics they embody begin to have more tangible and widespread consequences. Middle class involvement in waste management impacts the lives of domestic workers within the home, waste workers in the neighborhood and municipal conservancy workers and waste pickers in the city. While the middle classes enjoy social, political and economic power and privileges, the urban poor who are engaged in waste-related activities for their livelihoods have been historically and contemporarily marginalized. In such a scenario, critically analyzing how these middle class movements interact with the state and with other class groups in the city becomes increasingly important. An explicit engagement with power and politics makes theories of ecological citizenship more relevant to sustainable consumption and production research in emerging economies like India.

## Chapter 4

# From bourgeois environmentalism to pragmatic partnerships: Governing garbage in the Garden City

### 4.1. Introduction

In the city of Bangalore in South India, garbage is not a trashy topic. Rather, it had come to dominate the collective consciousness of many middle class Bangaloreans in 2012 and 2013, when the city went through what the English language media called a “garbage crisis”: the closure of two landfills outside the city in June 2012 meant that Bangalore had nowhere to send its waste for two weeks. In response to this crisis, and under direction from the High Court of Karnataka, the city municipality has since embarked on the ambitious task of overhauling Bangalore’s entire municipal solid waste management system. In contrast to other cities in India and globally that are choosing to respond to growing mounds of urban refuse with capital and technology-intensive solutions like Waste to Energy plants, Bangalore is attempting to set up a decentralized zero waste management system that emphasizes source segregation, recycling, and composting. These decentralized waste management systems are also producing new work opportunities for some members of Bangalore’s informal waste sector.

Why is Bangalore choosing “Reduce-Reuse-Recycle” over the smokestacks of incineration? In this paper, I argue that a growing green movement among certain sections of the middle classes in Bangalore, which emphasizes individual responsibility, ecological citizenship, and planetary stewardship, is pushing the Bangalore municipality to implement a zero-waste management regime that also includes informal sector participation. Influenced by global discourses on recycling and sustainability, desirous of living in city environments that are both “clean and green”, and frustrated by the repeated failures of centralized waste management technologies, many middle class neighborhoods have implemented recycling and composting schemes, changing waste disposal practices within homes, and instituting new supply chains of waste collection and processing. Emboldened both by local success and by repeated crises in Bangalore’s preexisting solid waste management systems, these middle class actors are trying to replicate and scale these socio-technical innovations, and transform how the entire city manages its municipal waste. During this process, middle class green movements have built alliances with working class groups - connections that are necessitated both by their ideological and moral commitments to zero-waste management and by the labor-intensive nature of the “eco-friendly” solutions being proposed to handle the waste challenge. These alliances and connections, which I call *pragmatic partnerships* have in turn opened up new spaces of economic inclusion for informal sector waste workers and enabled them to gain recognition from the municipal government for the services they provide to the city.

In this paper, I extend Amita Baviskar concept of *bourgeois environmentalism*, which she defines as middle class efforts to create order, hygiene, safety, and ecological preservation by fashioning

a public sphere that excludes the poor (Baviskar 2011), to argue that under some conditions, middle class civic actors seeking environmental preservation shift their political strategies from attempting to exclude poor groups from the city to instead forming pragmatic partnerships with certain constituencies of the urban poor. Middle class actors and waste workers interact in what Lawson and Elwood describe as “contact zones” (Lawson and Elwood 2014), where pre-existing notions of waste work and waste workers are contested and occasionally transformed. Interactions in contact-zones result in the creation of cross-class collaborations that I term *pragmatic partnerships* because they are borne out of the recognition that the middle classes *need* working class labor to realize their visions of clean and green cities. Middle class civic and environmental activists thus form partnerships with waste pickers and other informal sector waste workers, who in turn advocate for inclusion in zero waste management systems by strategically expressing their rights for inclusion in terms of their utility and value as green workers. As a consequence of these pragmatic partnerships, informal sector waste workers are able to access new work opportunities and gain legal recognition for their services from the state. This represents a hitherto undocumented coalition between middle class environmental and civic activists, and particular segments of the urban poor that promises to bring tangible improvements to the livelihoods of around 8,000 waste pickers in Bangalore. Through this case, I argue that environmental discourses can disrupt how some sections of Bangalore’s middle classes relate to their own identities, to city spaces, and to certain sections of the urban poor.

#### 4.2. Context: The “garbage crisis” in Bangalore

In June 2012, the Karnataka State Pollution Control Board (KSPCB), a regulatory body that monitors environmental standards in the state of Karnataka, closed one of Bangalore’s landfills. The city of Bangalore produces somewhere between 3000-4000 tons of solid waste every day, which is normally collected and transported by private contractors to landfills outside the city, where it is dumped with next to no processing.<sup>35</sup> The landfill in question abuts the village of Mavallipura in the outskirts of the city. For almost a decade, the residents of Mavallipura had protested the contamination of their land and water by leachates from this landfill, saying that it was jeopardizing both their lives and livelihoods (Ramani 2012; Environment Support Group 2012). Support from a city based environmental justice group and increasing media coverage helped move their case forward. After years of going back and forth the regulatory authorities finally closed the landfill and ordered all dumping to stop with immediate effect (KSPCB 2012). The Bangalore municipal authority, the Bruhath Bengaluru Mahanagara Pallike (BBMP) then began to divert municipal waste to another landfill outside the city, located near the village of Mandur. Within a day or two, the residents of Mandur also began to protest and constructed physical blockades to prevent garbage trucks from entering their village (BBC News 2012). The conflict took a violent turn, with altercations between the police and village residents (Deccan Herald 2013).

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<sup>35</sup> Official BBMP estimates of the quantity of Municipal Solid Waste (MSW) produced in Bangalore place the number at ~ 3000 tons/day in 2009, of which 53 % is organic ‘green’ waste 12 % plastic, 9 % paper, and the remaining inert, biomedical, and other wastes (<http://218.248.45.169/download/health/swm.pdf>). The Central Pollution Control Board estimates Bangalore’s daily waste production at 3700 tons in 2010-11 (Central Pollution Control Board 2012).

With nowhere to send its waste, garbage began to pile up on its streets and Bangalore was soon plunged into what the English language media called a “garbage crisis” (The Hindu 2012b; Harris 2012). While the city’s waste management systems had long been ailing, what changed in this moment was that the crisis spilled over into the spaces of privilege and finally caught the attention of the city’s elites. This attention, the climax of which was perhaps a New York Times article on Bangalore’s transformation from a “garden to a garbage city”, put *Kasa* (the *Kannada* word for trash), on everyone’s mind. As Shobha De, a popular writer and film critic visiting Bangalore for a literature festival commented, “The whole city seems to be obsessed with garbage” (The Hindu 2012c). As public pressure and attention built, the city government responded with force, and tried to use the police and local political leaders to alternatively subdue and mollify protesting villagers. The Mandur landfill was reopened following negotiations with villagers with the condition that dumping would cease in a few months. Three years on, this landfill continues to be used, breaching successive deadlines (Times of India 2014).

Bangalore’s waste management systems had been in a mode of staggered crises for years, but largely outside the purview of middle class attention or English-language media coverage. Instead, what simmered was a crisis of labor and livelihoods where the majority of the city’s conservancy workers (known as *pourakarmikas* in Kannada, the local language), most of whom are employed by private contractors, have no job security, and toil for less than minimum-wage in unsanitary conditions (Narayanareddy 2011), where the city’s growing waste picking population faces challenges in terms of access to waste, and where the communities living next to landfills have suffered the dumping of garbage on their grazing lands for decades (Environment Support Group 2010). The city’s waste management procedures have also precipitated an environmental crisis: “unscientific” landfilling has resulted in toxic leachates entering groundwater around landfills. The large amounts of waste that has accumulated in the bowels of the city and its outskirts, much of it non-biodegradable, is either left to pile up or is burnt. Bangalore’s struggles with waste management are not unique. Today, most cities in India face mounting challenges brought about by growing mounds of garbage (A. Kapur 2010). As cities have grown both in size and population, so has the amount of waste generated (OECD 2007). In addition to rising quantities, the biophysical nature of waste has also changed, reflecting the changes in consumption patterns and materials economies since the liberalization of the Indian economy in the late 1980s. There is more cardboard and paper in waste, as well as more plastic from the packaging materials used in Fast Moving Consumer Goods (FMCG) (Gidwani 2013a). Municipalities are thus faced with a dual challenge – more waste, of an increasingly diverse nature.

Indian cities have responded to this growing garbage problem in a variety of ways- by privatizing and contracting out waste collection and transportation services, by acquiring more land in the suburbs and surrounding rural areas for waste disposal, and more recently by setting up large incineration plants (The Economic Times 2015). Each of these has come with a host of economic, environmental, and social problems (Chintan 2012; Gidwani 2013a; Chaturvedi and Gidwani 2011). Private contractors fail to process waste before disposal in landfills, continuing and exacerbating the problem of groundwater pollution (Environment Support Group 2010). With intensifying urban expansion, property prices in the suburbs have risen, and municipalities struggle to source land for landfilling. Waste to Energy plants, like a controversial plant installed in Delhi,



have failed to deliver promised energy, and have instead increased the concentration of dangerous pollutants such as dioxins in their vicinity (Times of India 2015; Shah and Viella 2013). Most of these systems have also come with significant social costs, often resulting in further marginalization and maltreatment of waste workers in the formal and informal sector (Chaturvedi and Gidwani 2011; Gidwani 2013a; Gidwani and Reddy 2011).

Returning to the developments in Bangalore in 2012, just as the garbage crisis was unfolding, a Public Interest Litigation (PIL) was filed in the High Court of Karnataka in June 2012, by members linked to a waste management advocacy group called the Solid Waste Management Roundtable (SWMRT). The petition asked for the implementation of the Municipal Solid Waste Management Rules 2000 (MSW 2000), a central directive that dictates how municipalities are required to manage solid waste. The Municipal Solid Waste Management Rules were issued by the Ministry of Environment and Forestry (MOEF), Government of India (GoI), in the year 2000 in response to a prior Public Interest Litigation filed in the Supreme Court of India.<sup>36</sup> The PIL claimed that the current practices of solid waste disposal in the city were unscientific and environmentally hazardous, and needed to be replaced with environmentally-sound methods of waste management. Some members of SWMRT were leaders of zero waste management schemes in their neighborhoods. The petition advocated segregation of waste into different categories at source (i.e. within households and commercial establishments), and the installation of decentralized recycling and composting systems, claiming that such actions would result in better city environments for all Bangaloreans, both today and in the future.<sup>37</sup> It also called for increased involvement of citizens in monitoring waste management in the city, particularly through Residents Welfare Associations (RWA) and non-governmental organizations (NGO) emphasizing that transparency and citizen oversight was essential to fixing Bangalore's broken waste management systems. In response to this petition, and in light of the "crisis" and the media furor surrounding it, the High Court passed a number of orders that promise to have significant impact on how Bangalore manages its waste.<sup>38</sup>

These developments in Bangalore were hailed as a watershed moment by zero waste management practitioners in the country. The High Court passed orders mandating segregation of waste at source and asking the BBMP to ensure that segregated waste is managed at the ward and sub-ward levels in designated Dry Waste Collection Centers (DWCC) and composting units. "Bulk generators" of waste like gated communities, educational institutions, commercial buildings, and

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<sup>36</sup> Municipal Solid Waste Rules 2000, a set of directives issued by the Ministry of Forestry and the Environment stipulate how urban local bodies (ULBS) in Tier I and Tier II cities should handle solid waste (Bhan 2009; Gidwani and Chaturvedi 2013). They were framed by a special committee in response to a Public Interest Litigation filed in the Supreme Court by Ms. Almitra Patel in 1996 (Almitra Patel vs. Union of India, WP 888 1996). The MSW rules promote door-to-door collection of waste, segregation of waste, scientific landfilling, and increased community involvement in solid waste management. The MSW 2000 rules have also hastened the privatization of waste collection in ULBs as the government usually lacks the in-house capacity to carry out door-to-door collection of waste (Narayanareddy 2011).

<sup>37</sup> Waste management activists drew on images and symbols of sophisticated recycling systems in Germany and other European countries to describe and motivate the need for these recycling and composting systems, indicating that these groups were very influenced by transnational discourses and ideas on sustainable or zero waste management,

<sup>38</sup> Court orders have been archived by one of the petitioners in the court case, the Environment Support Group, here: <http://www.esgindia.org/education/community-outreach/resources/esgs-initiatives-socially-just-and-ecolo.html>

office complexes were asked to set up in-house recycling centers and composting systems. This was the first time in India that a municipality was required by law to build infrastructure within the city to manage waste, sacrificing valuable real estate that could have otherwise gone to constructing a mall or building an apartment complex. The court also rejected proposals to set up Waste to Energy technologies, favoring proposals that promoted decentralization, recycling and composting. Critically, the court declared that landfilling can only be a temporary measure of waste disposal that needed to be phased out as soon as possible. This represented a rare victory for communities that live near dumping sites, as for the first time, their rights to clean air and water were acknowledged and reaffirmed by the legal system. Thus, directions from the High Court have pushed the BBMP into taking a series of steps to institutionalize decentralized waste management in the city, with significant consequences not only for waste generators, but also for the city's sizable informal waste picking and recycling sector.<sup>39</sup>

Having presented the context for this paper, the next sections are organized as follows. In section 3, I discuss how the data for this paper was collected and interpreted. In section 4, I present the conceptual and theoretical frames that I engage with, specifically Amita Baviskar's conceptualization of middle class environmental politics as *bourgeois environmentalism* and work that follows her approach (Baviskar 2011). In section 5, I draw on accounts of prior instances of waste activism in Bangalore spearheaded by middle class and elite groups to show the applicability of Baviskar's theory to certain middle class civic engagements in post-liberalization Bangalore, particularly those that seek to make Bangalore a "world-class" city. In section 6, I shift my focus from theory to empirical material, and introduce the case of zero waste management communities in contemporary Bangalore. In section 7, I discuss why these cases generate critical extensions to dominant theorizations of middle class environmentalism. In section 8, I critically analyze how middle class-led zero waste management initiatives have impacted the lives of two sections of Bangalore's waste-engaged poor and working classes: sanitation workers and waste pickers in the informal sector. Arguing that contemporary waste management activism represents a departure from the political dynamics observed in other studies, I theorize new political relations between middle class actors and waste pickers as representing *pragmatic partnerships* between middle class actors and representatives of Bangalore's informal waste sector. To do this, I draw on other studies to describe the nature of waste work in Bangalore, and employ ethnographic vignettes to analyze the interactions between waste workers and middle class waste activists in various spaces that I call "contact zones", following Lawson and Elwood (2014). I conclude by discussing some of the implications of these pragmatic partnerships for relational class politics in the city and for sustainable waste management.

### 4.3. Data and methodology

This paper is based on eight months of qualitative and ethnographic research in Bangalore, India, conducted between August 2012 and April 2013. During this time I conducted 45 semi-structured

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<sup>39</sup> In response to the High Court orders the BBMP set up an expert committee to devise recommendations on how to implement these directions. The expert committee produced a report called "A Future with No Landfills" that can be accessed here: [http://bcity.in/system/document\\_uploads/90/original/XCSWMReport.pdf?1371035203](http://bcity.in/system/document_uploads/90/original/XCSWMReport.pdf?1371035203)

interviews with middle class individuals who practice and promote zero or sustainable waste management, i.e. waste management practices that prioritize source segregation of waste, reuse, recycling, and composting. My respondents were primarily members of the so-called “new” or upper middle classes of Bangalore, i.e. its’ propertied and well-to-do middle classes. About 30 of my 45 respondents lived in gated communities and apartment complexes, while the remaining lived in independent homes. A majority of them (30 out of 45) were involved in an apartment complex or neighborhood zero waste management initiative. Many of these individuals belonged to homeowner associations known as Resident Welfare Associations (RWAs) in India<sup>40</sup> (22 out of 45), and some are affiliated with other types of civic organizations, particularly non-governmental organizations (NGOs) (10 out of 45). As part of my field research, I visited 12 apartment complexes and commercial spaces that had installed zero-waste management infrastructure such as dry waste collection and sorting centers, composting units, and biogas plants. Many of these initiatives were in relatively new gated communities that had been built in the peripheries of Bangalore in the past decade (such as in Uttarahalli, Kengeri, Jakkur, Byatranapura, Kalyan Nagar and J.P. Nagar), while some were in older, “central” neighborhoods like Malleswaram, Seshadripuram and Jayanagar. I interviewed representatives from waste-engaged civic and non-governmental organizations (NGOs), including those that work with the informal sector in Bangalore. I also monitored and engaged in social media conversations on waste management in Bangalore via Facebook and email listservs.

Over the course of 8 months, I also became increasingly active as a volunteer in a waste management advocacy group based in the neighborhood of Malleswaram, where I was a resident myself. This advocacy group was composed of ten members, nine of whom were women. As a volunteer with this team, I was an active participant in over 15 waste management awareness campaigns in the city. These campaigns were conducted predominantly in middle class apartment complexes, community organizations, and educational institutions. The campaigns were firmly embedded in the “Reduce-Reuse-Recycle” philosophy. During these awareness demonstrations, our group would use various props and informational materials to educate audience members about the material composition of various types of wastes, their hazards and value, and outline some “eco-friendly” processing methods. Attendees who were predominantly middle class homeowners or apartment complex dwellers, some of whom were also active in local Resident Welfare Associations, were advised on the need to avoid using disposable cups and water bottles, now ubiquitous in India. They were shown shocking pictures of landfills outside the city and presented with scientific evidence on the toxicity of various kinds of waste. Science was mixed with sentiment as the women in the group talked about how and why they came to care about waste, and the battles they had fought with their husbands and children to change waste disposal practices in their homes. My engagement with this advocacy group easily spilled over into my social life. I spent many evenings in the company of these women, chatting, cooking, and eating. Our

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<sup>40</sup> A Residents Welfare Association is a form of home-owner or neighborhood association that has become an increasingly dominant force in how Indian cities are planned and governed (Ghertner 2011b; Coelho, Kamath, and Vijayabaskar 2011; Kamath and Vijayabaskar 2014). The organization’s membership is composed of neighborhood residents, most of whom are also property owners (but some can be renters), who come together to discuss neighborhood quality of life issues like water access, sanitation, safety, and waste.

conversations traversed many topics from talking about the Aam Aadmi Party to the latest Bollywood blockbuster.

As part of my work with the Malleswaram waste advocacy group, I helped organize an event called My Clean Malleswaram. I also served as a documenter and report-writer at Wake up Clean up Bangalore, a city-wide event organized in March 2013, to publicize the new waste management rules that the municipal government was trying to implement following High Court orders. Participating in these waste management awareness events, most of which were organized in response to the municipal mandate requiring source segregation, recycling, and composting, helped me decipher how diverse actors were framing and reacting to the “garbage problem”, and negotiating responses to legal requirements. In addition to my work with middle class waste management activists, I worked as a volunteer and consultant for Hasirudala, a newly-formed cooperative of waste pickers in the city, from December 2011- July 2012. In this capacity, I prepared flyers and website content advertising their services, attended legal hearings, and contributed to strategy meetings.

From my interview data and ethnographic fieldwork, I make sense of how certain middle class communities were practicing and promoting what they defined as sustainable waste management, and the consequences of this work for the city and its waste-engaged working classes. The explanations I present here use the lens and matter of garbage to relate the micro-politics of household practices and the provincial sphere of networked neighborhood activism, to larger class and poverty politics in the city. It illuminates the possibilities and limits of middle class environmental politics, a topic that carries not just theoretical interest, but also has pragmatic consequences for the state of city environments and the fate of other, less-dominant social groups in the city.

#### 4.4. The environmental politics of the middle classes

How do the middle classes of India think about and act on the environment? The limited but growing literature on middle class environmental engagement has pointed to the internal inconsistencies of middle class environmental ethics and actions in India (key works on middle class environmental politics include (Mawdsley 2004; Rademacher and Sivaramakrishnan 2013; Baviskar 2011). Many middle class people claim to desire ecological preservation; however, they mostly remain unwilling or unable to see the role of their own consumption practices in producing environmental problems in the first place (Baviskar 2011).<sup>41</sup> Instead, many distance and displace their environmental responsibilities onto faraway places and people. For example, the urban middle classes have repeatedly advocated for the creation of national parks and protected wildlife enclaves elsewhere in India, unmindful of the displacement of local communities this might promote (Baviskar 2005). In city settings, the middle classes absolve themselves of culpability for urban environmental degradation, instead displacing blame for pollution and garbage onto other actors, particularly the urban poor and the diverse industrial sectors that employ them (Benjamin

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<sup>41</sup> This gap where individuals and groups do not explicitly acknowledge the role of their consumption practices on environmental degradation is one that is very much part of environmental movements in the West too.

2000; Bhan 2009; Ghertner 2011a; Baviskar 2003)

Amita Baviskar categorizes this type of middle class environmental engagement as a “*bourgeois environmentalism*”, which she defines as middle class efforts to create order, hygiene, safety, and ecological preservation by fashioning a public sphere that excludes the poor. As Baviskar explains, “middle class activists mobilize the discourse of ‘public interest’ and ‘citizenship’ to articulate civic concerns in a manner that constitutes a public that excludes the city’s poorer sections” (Baviskar 2011, 392). By framing their class-derived personal preferences as issues of public concern and by claiming to speak for the citizens of a city and of the nation, the middle classes are able to cloak their self-interested actions as serving the greater environmental good. They simultaneously cast other actors, be it sanitation workers, street vendors, local businesses, real estate developers or even various functionaries of the state, into the role of representing vested interests, preoccupied with self-serving agendas (Anjaria 2009). By taking their concerns directly to the judiciary through the legal tool of public interest litigation<sup>42</sup>, middle class organizers bypass the elected branches of the state and its municipal functionaries to enact visions of urban commons that reflect their desires for comfort and convenience. These visions, which often oscillate between looking to preserve the “green heritage” of Indian cities and seeking to emulate world-class cities like Singapore, are often contradictory and contested even within middle class groups (Nair 2005; Rademacher and Sivaramakrishnan 2013).

Waste has been a lightning rod for middle class environmental engagement in India for many decades. Middle class activists desiring orderly streets cleansed of both garbage and the poor position themselves as self-less stewards of the city, striving for sanitized and safe environments (Anjaria 2009). This “Brown Agenda” is characteristic of middle class environmentalism not just in Bangalore, but in other Indian metropolises like Mumbai, Chennai, and Delhi (Mawdsley 2004). While these agendas have varied in scope and implementation, they embody an exclusionary and illiberal nature that characterizes much middle class civic politics in the city (Anjaria 2009; Baviskar 2005; Ghertner 2012). As Ghertner (2010), Anjaria (2009), Arabindoo (2005) and others have demonstrated through studies of middle class activism in Delhi, Mumbai and Chennai, many middle class groups have used discourses around hygiene and public nuisance to advocate for the demolition of informal settlements, arguing that these settlements are the source of squalor in the city (Bhan 2009; Ellis 2012; Harriss 2006). These drives to remove informal settlements have had negative impacts on the lives and livelihoods of many sections of the urban poor, including waste-pickers and waste-dealers in the informal sector, who process the bulk of municipal solid waste in Indian cities. Middle class environmental campaigns criminalize the poor and de-value their contributions to maintaining city environments (Gidwani 2013a; Gidwani 2013b).

Increasingly, garbage-related bourgeois environmentalism is manifested in middle class and elite campaigns to live in world-class cities. Garbage and pollution are framed as threats to city environments and consequently to world-class appearances, and the need to control garbage has

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<sup>42</sup> A public interest litigations is a legal tool that enables “ordinary citizens” to approach the judiciary directly on any matter of “public interest.” While initially conceived to enable those in socially and economically disadvantaged positions to access justice through the higher courts, the PIL has since become a tool in the hands of the middle classes (Bhan 2009; Rajamani 2007)

sparked many anti-poor actions such as the demolition of slums (Ghertner 2012). Again in these movements, the middle classes appear to ignore the waste produced by their own consumption practices, instead displacing blame for the “nuisance” of waste onto the poor. As many have observed, dirt and garbage are all too easily and readily associated with the poor in urban India. Some of this is attributable to the fact that state or private sponsored waste collection services are almost never extended to informal settlements. To put it simply, the poor have nowhere to put their refuse or trash, and get persecuted for this time and time again (Baviskar 2003).

#### 4.5. Garbage as a threat to the “garden city” and the “world-class city”

In Bangalore, garbage has long been viewed as a threat to the middle class and elite aspirations to inhabit a garden city of genteel civility and a world-class city of entrepreneurial dynamism. As Janaki Nair points out in her history of Bangalore’s journey into metropolitan status, in late 20th century Bangalore there exists a nostalgia for a “mythicized past”, in which Bangalore was a “placid and restrained” paradise of wide, tree-lined streets and well-planned neighborhoods filled with respectable middle class folk (Nair 2005, 79–81). This narrative of Bangalore’s past continues to circulate in public discourse. Media articles that rue the loss of the garden city of yore and the civic organizations dedicated to preserving and restoring Bangalore’s green glory are evidence of this.

However, as Nair has emphasized, Bangalore’s past as a middle class garden city is more an imagined memory than a material reality. Bangalore has long been a site of trade and industrial production. Nevertheless, certain segments of Bangalore’s population, predominantly its middle classes, have been particularly invested in protecting and perpetuating the garden city imaginary. This fervor for an Edenic Bangalore is unsurprising if understood in the context of what Fernandes and Heller, Baviskar and Ray, Upadhya and others have highlighted about middle class identity: Middle classness is constituted through practices, consumptive, quotidian, spatial, political, and otherwise, that serve to distinguish this class group from the masses (Baviskar and Ray 2011; Fernandes and Heller 2006; Upadhya 2009). The self-identity of those who consider themselves middle class in Bangalore is inherently tied to the nature of the places they inhabit. Middle-classness is both constitutive and constituted by Bangalore’s identity as a garden city. Thus to be middle class in Bangalore is to also inhabit a space that reflects the self-identified morals and dispositions of a middle class person, that is of order, reason, restraint, and hygiene. Middle class Bangaloreans today secure themselves in manicured gated communities or in older neighborhoods with tree-lined streets, partially shielding themselves from Bangalore’s many industrial parks, commercial areas, and slums. In these spaces, the imaginary of the garden city lives on.

If the garden city imaginary represents the “green heritage” of Bangalore that the middle classes seek to preserve, then the world-class technology city is portrayed as the gleaming future of the city (Nair 2005). Garbage is as much a threat to Bangalore’s world-class city aspirations as it is to its garden city status. This perception of threat has spurred the creation of a number of neighborhood-based Residents’ Welfare Associations and city-wide civic organizations whose express purpose is to keep garbage from sullyng ordered spaces. These organizations invoke both garden city and world-class city rhetoric to legitimize their viewpoints and motivate their actions.

One of the prime examples of middle class attempts at governing garbage in Bangalore was the “Bin-Less Bangalore” initiative, launched by the now-dismantled Bangalore Agenda Task Force (BATF). A prime example of world-class and exclusionary city-making, BATF was set up as a public-private partnership by the then Chief Minister of Karnataka, SM Krishna in the late 1990s. The BATF was chaired by Nandan Nilekani, erstwhile CEO of Infosys, and its members were almost exclusively recruited from Bangalore’s corporate class. The explicit aim of BATF was to make Bangalore a more suitable site for globalized production by changing not only its infrastructure and institutions, but also the dispositions of its people. As multiple scholars have observed, the BATF was a brazen attempt to articulate an exclusive and exclusionary vision of the city that privileges the interests of the privileged (Benjamin 2007; Ghosh 2005; Nair 2005). Although the BATF was disbanded when the government changed hands, successive state governments have continued to install extra-constitutional planning bodies, composed of the same set of corporate elites that have sought to replicate BATF, both in ideology and execution (Nair 2013).

In 1998, when BATF conducted a survey of all “Bangaloreans”<sup>43</sup> on civic issues, garbage was among the top public concerns voiced in survey responses. Emboldened by “public opinion”, one of BATF’s first and most wide-ranging moves was an overhaul of the city’s waste management systems, carried out under a program called *Swaccha Bengaluru*. BATF’s actions solidified and exacerbated what Rajyashree Reddy describes as the “neoliberalization of municipal governance” in Bangalore (Narayanareddy 2011): Since the late 1980s, Bangalore had begun contracting out waste collection services and had implemented a freeze on hiring permanent conservancy workers employed by the state. While “permanent” conservancy workers had access to pensions and held secure “government jobs”, contract sanitation workers received no benefits, could not count on job security and were often not paid on time. One of the first moves under *Swaccha Bengaluru* was to exacerbate this trend by eliminating road-side bins and instituting the door-to-door collection of waste through private contractors. Door-to-door collection added new demands on labor, who also had to contend with poor work conditions and limited equipment. However, these issues were simply glossed over, as the priority for the BATF was to cleanse Bangalore’s streets of garbage, irrespective of social costs.

Even though “Bin-Less Bangalore” was in theory supposed to clean Bangalore by preventing the dumping of waste on city streets, even one of its main architects admitted during our interview that the program did not achieve its goals. At best, the visible presence of waste was removed from elite and middle class localities and transported to slums and the outskirts, where it would not interfere as much with world-class imaginaries. Informal dumps formed in the spaces where bins had been removed. Door-to-door collection was never initiated in many neighborhoods, especially in informal settlements. In other words while Bangalore may have become bin-less, garbage was still plentiful. *Swaccha Bengaluru* also did little to change how the city disposed of its waste: Bangalore continued to use private contractors to transport its municipal solid waste to dump spots outside the city, where the waste was dumped with little or no processing or treatment. This was

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<sup>43</sup> Though questions remain as to the actual composition of respondents

done despite the fact that dumping directly contravenes the MSW 2000 issued by the Government of India

Another of BATF's stated goals was to increase civic (by which they exclusively meant middle class) participation in urban governance, and in the arena of waste, this was done through the creation of a brigade of "concerned citizens" who could monitor the cleaning up of their neighborhoods and report any wrongdoing to the local municipal authorities (Nair 2005; Narayanareddy 2011). These *Shuchi Mitras* or "friends of cleanliness" were authorized to monitor and report on sanitation workers and contractors, and were recruited from local RWAs. Parallel to and in conjunction with state-led and public-private efforts at cleaning up the city, civic organizations also became increasingly vociferous in their opposition to garbage on the streets. One such organization was *Swabhimana* (which roughly translates to clean and healthy) which was formed by a group of "concerned citizens" in 1995, and even had an office in the BBMP's buildings. Members of *Swabhimana* engaged with the state through initiatives like BATF, and were often the on-the-ground enforcers of schemes such as the door-to-door collection of waste. Members of *Swabhimana* functioned as *Shuchi Mitras* in their individual neighborhoods, supervising and policing the work of contractors and waste workers. This dynamic of "citizens" serving as foot soldiers of the municipal apparatus dovetails with what Ghertner (2011b) has described as the "gentrification of the state", where the voices and actions of middle class and elite city dwellers are privileged in urban planning and governance through the creation of titles such as *Shuchi Mitras* in Bangalore, or schemes like the *Bhagidhari* program in Delhi (Ellis 2012). The municipal and state government validate middle class claims to speak as "concerned citizens" for the public interest by vesting them with the ability to police other actors, be it local municipal officials, private contractors, or sanitation workers. The logic that "citizen" involvement is key to creating safe, efficient, and clean cities is a key tenet of the political philosophies of these middle class associations. It is also part of an effort to devolve the tasks of municipal governance by encouraging citizens to function as volunteer service providers and take on ownership and responsibility for delivering key municipal services (Narayanareddy 2011).

In summary, garbage is perceived and framed as a threat to Bangalore's garden city heritage and world-class aspirations. Consequently, corporate elites and middle class-led civic organizations have tried to alternatively control and displace garbage, often to the detriment of various sections of the urban poor. Instead of addressing the entirety of the waste management cycle from waste production within homes to collection, transportation, processing, and disposal, these efforts have focused primarily on cleaning up streets and eliminating roadside dumps in more affluent neighborhoods. Further, these "environmental" initiatives failed to acknowledge the role of the middle classes themselves in producing much of the waste that litters Bangalore's streets, instead turning their attention to imposing culpability on the work and practices of the poor. More importantly, waste workers, both from the informal and the formal sector, receive next to no recognition for their crucial role in maintaining city environments or opportunities for participation in public consultations.

These efforts can be productively interpreted using Baviskar's concept of *bourgeois*



*environmentalism*, where the middle class invoke public interest and citizenship to validate narrow lifestyle preferences as issues of city-wide import and environmental urgency. Using the language of modernity, civic consciousness, and public health (Chakrabarty 1992) and by codifying aesthetic preferences into law through successful litigations (Ghertner 2011a), the middle classes try to deliver for themselves “clean and green” world-class cities. However, as the failure of the Swachha Bengaluru effort shows, middle class environmental initiatives have been compromised by the misrecognition and double think that is characteristic of bourgeois environmentalism- where the middle classes fail to acknowledge and account for the role of their own consumption in producing environmental problems (Baviskar and Ray 2011), and fail to see the role of the poor and the working classes in maintaining city environments through their labor (Gidwani 2013a; Chaturvedi and Gidwani 2011; Gidwani and Chaturvedi 2013)

#### 4.6. The case study of zero waste management in Bangalore

In this section, I draw on 8 months of ethnographic research in Bangalore to discuss a new wave of waste-focused environmental engagement that has emerged in Bangalore over the past 5 years. Inspired in equal parts by the environmental narratives of the West that emphasize the role of individual behavior change in environmental conservation and by collective local efforts to restore Bangalore’s garden city heritage, these movements emphasize the role of individual behavior change and citizen responsibility in addressing the negative environmental impacts from waste production. By moving sites of intervention from the streets to within homes, some middle class environmentalists are turning to waste reduction, segregation of waste at source, recycling, and composting as solutions to Bangalore’s garbage problem.

I describe these so-called zero-waste or sustainable waste management systems in detail in Anantharaman 2014. In essence, these initiatives are community-based socio-technical innovations lead by volunteers and leaders, most of whom are women. Mainly based in apartment complexes and gated communities, these systems require residents to separate waste into multiple types, such as dry waste (paper, plastic, and glass), wet compostable waste (food scraps and garden waste), and sanitary waste (sanitary napkins, sharps, and other medical waste). Segregated waste is then collected and transported by paid labor to sorting centers, where it is further segregated and diverted to different waste processing streams. Volunteers assemble the various components of these system: Their activities range from preparing educational materials that help residents differentiate between types of waste, to hiring and managing waste workers who collect, transport, and sort waste, and connecting with waste management service providers to process waste.

How did these neighborhood-based systems emerge? In my interviews, I asked individuals how they became practitioners and advocates of zero waste management, and their answers, while diverse, pointed to some common themes. Many of these individuals had spent years trying to get rid of “black spots” on their street corner or dumps outside their homes, but with limited success. The municipality was unresponsive, contractors negligent, and street sweepers disinterested, they said. Recycling and composting was a way to “take matters into their own hands”. By identifying private vendors who would collect dry waste, and even give them some money in exchange, and by composting wet waste, they were no longer dependent on municipal services. Secondly the

allure of earning a small income from the sale of waste was attractive in itself, albeit not to the more well-to-do of my respondents.

Others saw the monetary gains as minor motivation, instead focusing on the purported environmental benefits of recycling and composting. Not only were they cleaning up their neighborhoods, but they were also preventing waste from going to a landfill or burning in a smokestack. Finally, for many individuals, recycling and composting became an identity, a rallying point, and a site to express environmentalism, citizenship, and civic engagement. This was especially true of the number of housewives I spoke with, who often had no civic life outside their homes aside from their waste-based neighborhood activism. Participation in communities helped internalize these civic and environmental virtues through social learning, and soon these became normative commitments that accrued the special status of ecological citizenship (Anantharaman 2014).

Emboldened by local successes, leaders of these zero waste management initiatives have gone on to form city-wide coordination groups like the Solid Waste Management Roundtable (SWMRT). These coordination groups are composed of individual leaders who have demonstrated successful waste management systems in their neighborhoods, some of whom are also members of RWAs, and representatives of non-profit organizations and social enterprises that provide waste management services. Groups like SWMRT have facilitated the replication of successful systems in new localities by organizing awareness campaigns and connecting households with waste service providers, who are in turn recruited from the private, non-profit, and the informal sector. In addition to facilitating the replication of these neighborhood or community-based waste management systems, coordination groups have also become increasingly active in trying to change municipal policies on waste collection and disposal. Citing local successes as evidence of the effectiveness of zero waste strategies, these city-wide networks have sought to scale and institutionalize zero waste management efforts into state-supported schemes.

Using a diversity of strategies such as engaging local elected representatives, municipal commissioners, and by approaching the courts with public interest litigations, these zero waste management groups have tried to get the city municipality to stop waste landfilling and instead switch to more “eco-friendly” options like decentralized recycling, composting, and biogas systems.<sup>44</sup> As I describe earlier in the paper, these efforts have been reasonably successful. In particular, the strategy of using a PIL to force municipal action through judicial directives has proven to be very effective. The PIL that precipitated the sweeping changes to Bangalore’s waste management systems was filed in the High Court of Karnataka by an individual citizen and had the support and backing of a broad coalition of waste management advocacy groups, RWAs, and

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<sup>44</sup> The diversity of political strategies used by these middle class zero waste activists is in line with what many scholars have emphasized about middle class civic participation: The middle classes do not exclusively work through civic organizations like NGOs or RWAs to advance their priorities. Instead, they invoke a diversity of strategies that can include engagement with local elected representatives (Coelho and Venkat 2009; Kamath and Vijayabaskar 2014; Anjaria and McFarlane 2011). As Kamath and others have pointed out, the fact that the middle classes participate and engage in both the civil and the political spheres troubles the distinction between the civil society and political society put forward by Partha Chatterjee and others as being a fundamental characteristic of political participation in modern day India ((Harriss 2006 following Chatterjee 2006).

NGOs, all of whom contributed to drafting the petition. Various other groups, including the Environmental Security Group (ESG), a prominent progressive environmental trust in the city, have since impleaded into the proceedings. This ongoing PIL remains one of the key sites through which middle class actors are able to influence the BBMP's waste management plans and procedures.

#### 4.7. The tempering of bourgeois environmentalism

I argue that zero waste management initiatives represent a situation where the doublethink that is characteristic of bourgeois environmentalism is moderated to an extent where (i.) the middle classes begin to recognize their culpability in producing the garbage problem and (ii.) they have to acknowledge the role of members of the poor and working classes in actually managing waste through their labor. As emphasized in the previous section, bourgeois environmentalists desire environmental preservation but are typically unwilling to acknowledge the role of their own consumption practices in producing environmental degradation in the first place. I observed that Bangalore's more radical waste activists were forced to confront their own consumption and disposal practices when years of trying to clean-up neighborhoods failed. Many of my interviewees who were long-time members of RWAs and other civic associations had spent years trying to clean out "black-spots" on neighborhood streets. They had cultivated relationships with local municipal officials and with private contractors, contacting them repeatedly to try and have streets cleaned. Some of them had even organized elaborate clean-up drives recruiting the help of school-children, teachers, and neighbors, only to find that the trash returned the very next morning.

Zero waste management activists went on to recognize that if they were to have any success in reducing the prevalence of waste on the streets, they perhaps had to begin with trying to change what happened within middle class homes. Consequently, their primary focus has been on making middle class residents to change their waste disposal practices by segregating waste into different categories. They also organize awareness campaigns in neighborhoods about the need to reduce the consumption of disposable materials and promote creative reuse of waste products. By moving the focus of their activism from the streets to within their homes and communities, these activists are beginning to organize around the idea that the middle classes themselves are culpable for the presence of garbage on the streets. At the same time, by advocating behavior changes within households they also seek to lead by example and claim to model what the ideal responsible "citizen" of Bangalore should do with his or her waste.

Baviskar uses specific cases of middle class engagement on so-called environmental issues in Delhi to develop the concept of bourgeois environmentalism. She chronicles middle class opposition to the presence of industries and informal settlements along the Yamuna river (Baviskar 2003) and campaigns against cow-herders and cycle rickshaw operators (Baviskar 2011) to describe how the middle classes attribute urban environmental degradation to the activities of the poor and working classes, all the while choosing to ignore the impacts of their own consumption practices particularly around automobile use. In the decade since the original presentation of this concept, I argue that because local environmental quality of most Indian cities including Delhi and Bangalore has not improved, some middle class environmental activists have been forced to

reexamine their priorities and actions. Environmental quality in Indian cities is worsening at alarming rates, as evidenced by recent reports on dangerous levels of air pollution in Delhi and Bangalore and repeated garbage crises. Wealthier and propertied members of the middle classes are now less able to protect themselves from this degrading environmental quality by securing themselves in air-conditioned cars or manicured gated communities. As garbage reaches their doors and as air pollution chokes their lungs, some members of the middle classes are beginning to recognize the environmental impacts of their consumption habits and current trajectories of urban development.

This degrading environmental quality in urban India coincides with the advent of a global movement that emphasizes the role of individual citizens and consumers in addressing and ameliorating environmental problems (Michaelis 2003). Partially provoked by the replacement of state-led environmental management with alternative approaches that emphasize the role of the market, businesses, and individual consumers, this individualization of environmental responsibility is characteristic of environmental discourses and movements in a globalizing and neoliberal socio-economic order (Maniates 2001). The individualization of environmental responsibility has gained particular traction within the domain of waste management. As Maniates points out, today the act of “recycling” by segregating your trash into different categories and putting it into differently colored containers has become the prime signifier of environmental consciousness. The Reduce-Reuse-Recycle mantra has quickly become integral to global environmental discourses around waste processing (MacBride 2011), thanks partly to the work of organizations like the Berkeley-based Global Alliance for Incinerator Alternatives (GAIA), which also has a presence in India.

Embedded in this narrative is the seductive idea that individuals can contribute to better environments by simply reducing, reusing, and recycling their waste. This logic has become attractive to many middle class Bangaloreans as it helps them fashion their small lifestyle changes as larger acts of ecological citizenship and city stewardship. While this type of individualization is problematic as it diverts attention from structural problems and in some cases, subverts collective action (Maniates 2001), in the Indian case it is also promising as it represents a rare situation where the middle classes actually hold themselves somewhat responsible for urban environmental degradation. Furthermore, in my cases, individualization ultimately resulted in coordination between diverse actors, who came together to collectively demand changes in government policies and actions (Anantharaman 2014).

Zero waste activists see their home and neighborhood-based actions as serving public interest. They call on the residents of Bangalore to take responsibility for the waste they produce and express ecological citizenship by changing behaviors and infrastructures. They seek order on the streets, hygiene, sanitation, and ecological preservation. In these respects, they have much in common with bourgeois environmentalists. However, for many zero waste activists, their understanding of ecological preservation extends beyond their immediate environments. Zero waste activists have repeatedly supported the struggles of communities living near landfills in Bangalore’s peripheries, protesting the contamination of their land and water, and the compromising of peri-urban livelihoods. In stark contrast to the all too common NIMBYism (Not

in my backyard), many zero waste activists instead call for YIMBYism (Yes in my backyard). Much to the annoyance of many of their middle class counterparts, they advocate for waste processing centers to be located within middle class neighborhoods, as opposed to in faraway places. Zero waste activists are also plugged into global discussions on environmental issues such as climate change and seek to connect their local efforts to global problems. Through their engagement in waste management, many individuals, women in particular, have developed affective relationships with garbage. I met dozens of housewives who nurtured their compost bins with much more fervor than they did their prayer rooms. Many made costumes and aprons using garbage that they wore during awareness campaigns. By engaging with garbage corporally, even garbage generated by other bodies, the daily practices of these women were in contravention of many caste-based ideas on purity and pollution.

Middle class zero waste management activists undoubtedly desire ordered green spaces for recreation and see access to parks as essential components of a genteel middle class life. In this respect, they again have a lot in common with the bourgeois environmentalists of Delhi that Baviskar describes. For example, some respondents talked about how the compost produced from municipal solid waste could be used in parks and boulevards to improve Bangalore's greenery and restore it to its past glory. Advocates constantly emphasized how practices like composting and recycling would "close the loop" and help revitalize city environments, making Bangalore more "livable". However, in contrast to bourgeois environmentalists described by Baviskar (2011) and others, some zero waste practitioners see their vision for a revived garden city as incompatible with a state and business-led campaign for a world-class city. A small but significant subset of waste management activists, particularly those based in north Bangalore, are critical of state and corporate-driven world-class city making efforts. They are skeptical of technology-intensive waste processing methods like Waste to Energy, believing that this will produce local environmental pollution, further compromising Bangalore's claims to being an organic garden city.

In other situations, waste activists have supported protests against "world-class" projects to build shopping malls, industrial estates, and widen roads. For example, in 2012, when a slum in Ejipura was being summarily demolished to make room for yet another mall, individuals from waste management communities were among the protesters at the site and on social media. While their protests were provoked by their strong conviction that Bangalore has far too many malls, and that shopping malls promote unnecessary consumption and waste production, this put them in partial solidarity with poor communities who were fighting for their right to remain in the city. In another case, zero waste activists in Malleswaram teamed up with local vendors to protest the demolition of the old Malleswaram market. They have also protested efforts by the state to widen roads and build signal-free corridors by felling trees and relocating local shops. Thus, when these middle class individuals go out to the streets to support environmental initiatives, they are often in solidarity with certain segments of the urban poor.

In this section, I have argued that the misrecognition and double-think characteristic of bourgeois environmentalism has given way to a partial recognition of how the daily consumption practices of the middle classes affects urban environments. This recognition is driven by the increasing circulation of environmental discourses, many imported from the West, about the need for

individual behavior change to achieve environmental conservation, coupled with the failure of other methods at cleaning up cities. Spurred by these factors, middle class citizens have tried to take matters into their own hands and set up decentralized, neighborhood-based recycling and composting systems. As they do this, they further internalize environmental ideas and adopt environmental ethics, and eventually find themselves opposing schemes and plans that one would otherwise expect them to be in favor of. This in turn puts them in partial solidarity with members of the urban poor. In the next section I turn our attention to those sections of the urban poor who are most relevant to waste management systems in Bangalore: sanitation workers and informal sector waste workers. Using a few vignettes I show how middle class zero waste management initiatives impact waste worker lives and livelihoods, demonstrating a range of dynamics from exclusion and appropriation to the formation of *pragmatic partnerships*.

#### 4.8. Waste work and the politics of exclusion and inclusion

While the environmental consequences of city-wide zero waste management systems are yet to be evaluated, in this section, I will focus on how these new actions affect waste workers in the city. Middle class narratives on the city and its waste have generally obfuscated the role that paid and unpaid labor play in managing waste, within a home, in the neighborhood, and in the city at large. From the domestic servant who cleans a middle class home and removes its refuse on a daily basis, to the conservancy worker (*pourakarmika*) who sweeps the streets, collects and transports garbage, to the waste picker who sorts through roadside dumps and landfills recovering recyclable resources, labor is essential to governing waste. Despite this reality, most of urban India's attempts at improving the governance of municipal solid waste have actively devalued the role of labor, marginalizing their voices in policy discussions (Gidwani and Chaturvedi 2013; Chaturvedi and Gidwani 2011; Gidwani 2013a). The privatization of waste collection and disposal, for example, meant that the municipality stopped hiring permanent workers. Contract workers receive below minimum wage pay, with no benefits or health care. The actions of the state also had negative impacts on informal sector workers who lost access to recyclable waste when the government issued contracts to private companies like Ramky Ltd for waste processing (Chintan 2012). Yet, despite these actions, waste workers in the formal and informal sector divert significant quantities of recyclables from trash, creating economic and environmental value, and compensating for the failure of state-commissioned systems (Chintan 2009). In Delhi, for instance, informal sector waste pickers and dealers process and recycle about 20% of the 7500 tons of municipal solid waste produced in the city every day.<sup>45</sup> In Bangalore, the informal sector diverts about 800 tons/day (out of a total of 3000-4000 tons) of waste from landfills.<sup>46</sup>

In decentralized zero waste management systems too, the powerfully connected middle class and elite actors who advocate for environmentally-sensible methods of waste management are reinforced both by paid workers who sit in sheds and sort through waste in gated complexes, and the domestic servants who act as conduits in enforcing good behavior amongst elites. For the

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<sup>45</sup> As per Chintan, an NGO that works with waste pickers in Delhi

<sup>46</sup> As stated on Hasirudala's website [www.hasirudala.in](http://www.hasirudala.in)

middle classes, the fact that someone else does your “dirty work” is considered common sense and even necessary. Caste and class derived attitudes to waste persist in India today, and have become embedded in systems of institutionalized exclusion in modernizing India (Ray and Qayuum 2011, Upadhy 2009). Thus, the waste management systems being promoted by the middle classes rely on paid labor within the home and in the community to carry out waste handling functions such as segregation and transport. As these systems scale from small community-based initiatives to larger schemes that operate in whole neighborhoods and wards, new economic opportunities emerge in waste sorting, handling, and transportation. In many situations, these economic opportunities have been preferentially handed out to private contractors and service providers like the Indian Tobacco Corporation (ITC) and other companies, at the expense of formal and informal sector waste workers. Decentralized “formal” recycling and composting systems can and do threaten some of the livelihood strategies of waste pickers and sanitation workers, who rely on recyclables in waste to earn and supplement incomes.

#### 4.8.1. Enclosures and conflicts

During my ethnographic fieldwork, I witnessed several instances of uneasy cooperation and outright conflict between middle class waste advocates and waste workers. One particular incident that occurred during a site visit in late 2012 clearly demonstrated the types of conflicts that arise between “new” claimants (i.e. the middle classes and private enterprises) and “old” claimants i.e. (sanitation workers and waste pickers) of waste. This incident took place in a newer neighborhood in southwest Bangalore, in close proximity to an IT Park that houses a number of Indian and multinational technology companies. A female employee at one of these companies was interested in investing some of her time and energy to improve the long-term health and sustainability of her community. She saw waste management as a domain where she could have an impact. Her interest in waste issues was provoked by a presentation given by a SWMRT member at her workplace. Her involvement was also prompted by the fact that the private contractor, employed by the BBMP, had repeatedly failed to collect garbage from their locality as promised. She decided to intervene, and with the help of some of her neighbors, started a waste segregation program that covered 200 households. The program required households to separate their waste into three categories- dry recyclable waste, wet waste, and sanitary waste. While the wet waste was collected everyday by the sanitation workers (i.e. *pourakarmikas*) hired by the private contractor, dry waste was collected only once a week and transported to a waste sorting center, where it was weighed and then sold to the Indian Tobacco Corporation’s Wealth out of Waste program (ITC WOW) for a bulk rate of 2 INR (.03 USD) per kilogram of dry waste.

During these weekly dry waste collection trips, the middle class leaders of this initiative would follow the *pourakarmikas* to monitor how well residents were segregating their waste and supervise the work of the *pourakarmikas* themselves. I accompanied them on one such trip and got to observe the dynamic between the workers and the middle class “volunteer-supervisors” first-hand. The middle class volunteers were frequently worried that the *pourakarmikas* were pilfering high quality recyclable materials from the dry waste. The *pourakarmikas* in turn resented being monitored and felt that they had a right to extract the high value recyclable waste from the discards,

as they could sell them for a higher price than the bulk rate offered by the ITC WOW program.<sup>47</sup> The waste workers wanted to sort the waste and sell it themselves. The middle class volunteers on the other hand claimed not be interested in the monetary gains from the sale of waste and did not see the need to further segregate the waste and sell it for a higher price. Consequently, I witnessed an incident where the workers surreptitiously removed high value plastics from their collection vehicle. When confronted, they repeated their frustrations, which were dismissed by the middle class leaders who said “*after all, we give you some of the money from the sale of the plastics, and breakfast too*”. Thus, even if the money accrued from the selling dry waste to ITC was distributed to the workers (after deducting “operating costs”), the sanitation workers resented losing *control* over the process.

Additionally, in these efforts to institute zero waste management systems, sanitation workers employed by the state and private contractors have had limited opportunities to participate in deliberations. For example, when the BBMP, in collaboration with middle class and elite civic activists organized a week-long expo on waste management called Wake up Clean up Bengaluru (WUCU), waste workers and their representatives were provided with very limited avenues for participation. Each day in WUCU had a designated “track”: the program for the day was devoted to a constituency that the organizers identified as a critical partner in addressing Bangalore’s waste challenges. So, while an entire day’s program was devoted to hotels and restaurants, another to hospitals, and another to apartment complexes and neighborhood societies, workers, strangely enough, were never identified as critical partners in waste management. Their involvement was limited to attending “education” sessions where middle class volunteers and BBMP officials explained the new rules to them and gave them demonstrations how to segregate waste. The leader of the *pourakarmikas* union, who ideally should have been invited to the morning power *nashtas* (or power breakfasts) where the municipal commissioner pow-wowed with corporate honchos and citizen leaders to solve Bangalore’s garbage crisis, was instead only invited to participate in a “lame-duck” panel session organized at 6 pm on the last day of the event.

Middle class actors often blamed *pourakarmikas* for the failure of segregation mandates. As one middle class resident told me: “*we have been segregating our waste ever since the BBMP passed the rules. But the PK (pourakarmika) just mixes it up. So what is the point?*” On investigating further, I found out that the worker had to mix the waste because she had only two containers given to her by her employer, and while 10-20 % of the houses in her route separated their wastes, the rest did not. Therefore she had no choice but to mix all the waste given to her. As demonstrated by these vignettes, the middle class actors generally displayed little interest in engaging with waste workers or educating themselves about their work. I did however witness some important, localized exceptions to this. In the neighborhood of Malleswaram, where I lived during my fieldwork, middle class activists would frequently accompany waste workers on their collection rounds. Instead of taking on a supervisory role, their interactions were more friendly and laid-back. Unlike the Shuchi Mitras of the past, these women did not want to police the waste workers, but instead monitor whether *residents* were separating waste into the stipulated categories. Casting themselves as partners to the waste workers, they chastised households who failed to segregate

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<sup>47</sup> For example, 1 Kg of discarded milk packets sells for 35 INR (0.5 USD)/kg vs. 2 INR (.03 USD)/kg for unsegregated dry waste. Fundamentally, the value of waste goes up with sorting



waste. However these moments of solidarity between waste workers and middle class activists were few and far in between.

#### 4.8.2. Pragmatic partnerships and cross-class coalitions

As the previous section demonstrates, zero waste management systems have provoked new conflicts between middle class activists and sanitation workers. Middle class actors have in most cases failed to build meaningful connections with sanitation workers, resulting in repeated conflicts over rights to control and sell recyclable materials in waste. In contrast to these contests with sanitation workers, interactions between the middle classes and the other large constituency of waste workers in the city, i.e. waste pickers and waste dealers in the informal sector, show more promising and progressive politics.

Ranging from waste pickers who extract resources from street dumps and landfills, to itinerant buyers who collect recyclables from households and businesses, to scrap traders who consolidate waste and divert them to recycling industries, Bangalore has a sizable informal waste sector. It is estimated that the city has anywhere from 8,000-12,000 waste pickers, a significant number of whom are women.<sup>48</sup> As I argue in this following section, some middle class waste activists are beginning to form new partnerships with waste workers from the informal sector. These partnerships are mediated through organizations that work with and represent informal sector waste workers in Bangalore. I term these new coalitions *pragmatic partnerships* as they are borne out of the recognition that middle class actors require the labor of informal sector waste workers to bring their visions of a clean and green garden city to fruition.

The zero waste management systems proposed by middle class actors are inherently labor intensive. These systems require waste workers to perform tasks such as the secondary and tertiary segregation of waste within waste sorting centers, and to operate composting and biogas plants. The informal sector was not the first-choice partner for middle class actors looking for manpower to operate these systems. Middle class groups like SWMRT initially approached large firms like the Indian Tobacco Corporation (ITC) to operate Dry Waste Collection Centers (DWCC). They also attempted tie-ups with other non-profit organizations that recruited labor from other sectors. However, these partnerships fell through. At this point, just as middle class engagement around recycling and composting intensified, preexisting and newly formed groups that advocate for the rights of informal sector waste workers began to insert themselves into these conversations. These groups were cognizant of the fact that if recyclables were to be enclosed in waste sorting centers, waste pickers and others who rely on it for their livelihoods would lose access to this waste. They began to seek out and network with middle class activists, advocating for the inclusion of informal sector waste workers in these zero waste management infrastructures.

One such group is *Hasirudala* ( translates to green army) a cooperative of waste pickers formed in 2011 that seeks to create better livelihoods for waste pickers, while also helping them gain the recognition they deserve for their contributions to improving city environments. Hasirudala was

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<sup>48</sup> This estimate is based on Hasirudala's organizing and enumerating efforts.

launched by a long-time labor organizer who had previously worked with waste pickers in the city of Pune, India together with a local NGO that has worked with waste pickers in Bangalore for over two decades. While a majority of its members are waste pickers and sorters, the organization's leadership is composed of long-time labor, social justice and education activists, recruited from Bangalore's middle and lower middle classes. In 2012, Hasirudala had 6,000 members and its ranks have been growing steadily since.

Organizations like Hasirudala face significant challenges when it comes to advocating for the rights of waste pickers to participate in waste management systems. The labor of a waste picker is largely invisible. As Vinay Gidwani poignantly puts it, waste pickers are “thrust to the margins of the contemporary city and face daily humiliation within it, but without (their) anonymous labor and artfulness, the urban fabric that city dwellers take for granted would rapidly unravel” (Gidwani 2013b, 774). Making this labor visible and valuable is thus one of the main goals of groups like Hasirudala. To do this, Hasirudala began to network and negotiate with middle class groups like SWMRT saying that the new economic opportunities that decentralized waste management would provide should be reserved for members of the informal sector, instead of being handed out to private contractors. Hasirudala's strategy was to emphasize that informal sector waste workers are experts in resource recovery from waste, given their experience and intimate engagement with the matter of garbage. As a Hasirudala activist said to an assembled audience of middle class homeowners' at a campaign to promote source segregation and recycling: “*We are the ones who will touch the waste*”. This statement reflects the recognition that informal sector activists have come to: that discourses around rights to the city and to livelihoods have limited purchase, even among sympathetic sections of the middle classes. Instead, by emphasizing the utility of their labor, groups like Hasirudala frame themselves as the “green army” that will deliver the clean and green cities that the middle classes so desire.

Carving out a space for waste pickers in systems of waste management embodying middle class values is no easy task. The portrayal of a waste picker as a threat, a beggar, and a dangerous presence is dominant in middle class Indian society. As one of my informants, Savitha, a 47 year old housewife living in Malleswaram who identifies as a waste management practitioner and advocate told me: “*For me a waste picker was just a beggar- when I saw a man picking through trash, I thought of him the way I would think of a beggar. It's only after I started working with the waste picker organization and interacting with waste pickers that I realized that they were not beggars. They were doing work.*” This particular woman was a member of her local RWA for a number of years, and an influential voice in neighborhood politics. During the course of her engagement with local civic campaigns, she became interested in zero waste management and joined a city-wide coordination group. As a member of that group, she came in contact with activists who worked with the informal sector, and began to meet and engage with waste pickers themselves. These personal engagements changed her views on waste pickers. Savitha is not alone: a number of middle class waste activists have now become sympathetic and supportive of waste picker organizations because of their in-person encounters with waste pickers themselves. These developments in Bangalore, where new relationships are being negotiated between representatives of informal sector groups and middle class activists, potentially provide opportunities for the kinds of “spatial encounters” in “contact zones” that can lead to transformative moments in how the

middle classes politicize poverty (Lawson and Elwood 2014).

Individuals like Savitha are instrumental in creating contact zones where other members of the middle classes encounter and engage with waste workers. I participated in the creation of one such “contact zone” when I helped organize a waste management awareness event in the neighborhood of Malleswaram. This event, which was a collaboration between the local elected representative’s office and a collection of neighborhood associations, was envisioned as a launch point for Malleswaram’s zero waste management plan. It featured several panel discussions on zero waste management, exhibits and demonstrations by waste management service providers, and educational activities for children and adults. The event was attended by around 200 Malleswaram residents, representatives from private companies offering waste management services, local elected representatives, municipality officers, and representatives from the informal sector. As part of the event, the organizing committee decided to convene a series of panel discussions on zero waste implementation. When choosing panelists, Savitha and another organizer proposed inviting a waste picker to participate in the discussions. While initially hesitant, the other organizers of the event agreed. With Hasirudala’s help, the event was attended by Suresh, a waste picker who had just begun to operate one of Bangalore’s newly commissioned Dry Waste Collection Centers. Suresh, who had working knowledge of three different languages, including some English, participated in the panel discussion as an expert on recycling. The other members of the panel included a woman who had launched a waste management scheme in her luxury apartment complex, an elected representative, a doctor who had expertise in public health, and a composting expert. This scene, where a waste picker sat on a dais and offered his expert advice was in stark contrast with other waste management events I had attended. Therefore, while waste pickers and other informal sector waste workers are usually excluded or relegated to a role of “service provider” in such events, in this situation his expertise was recognized and lauded.

Thus, by drawing on environmental discourses themselves and by positioning themselves as environmental actors, waste pickers represent their interests in terms of ideas that are attractive to certain sections of the middle classes, and that speak to middle class environmental ethics. Calling themselves “robust entrepreneurs and silent environmentalists”, waste picker organizations are strategically reframing their identities. They articulate their right to inclusion in these infrastructures in terms of their ability and willingness to work with waste. By building alliances with middle class groups, waste picker organizations are able to access arenas of power that would otherwise be closed to them. For example, when SWMRT was presenting its case in the *lok adalat*, Hasirudala added a petition that asked the state to formally recognize waste pickers and affirm their right to pick waste by issuing identity cards. When the court granted this request, the municipality was forced to issue identity cards to over 7000 waste pickers. These identity cards were a significant victory, as they gave waste pickers a legitimacy that they did not previously have, protecting them from harassment by the police or by private contractors. More importantly, the ownership of a government-issued identity card also meant that they could access state-provisioned entitlements like social security and health insurance. Over 1000 waste pickers have now been registered for health insurance in Bangalore (Khan 2015).<sup>49</sup>

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<sup>49</sup> Waste pickers in other Indian cities like Delhi (Gidwani and Chaturvedi 2013) and Pune (Tangri 2012) have also been able to enter into new arrangements and relationships with middle class Residents Welfare Associations, and

Waste pickers and waste dealers have also begun to operate Dry Waste Collection Centers (DWCC) in Bangalore. These dry waste collection centers are part of the new waste management regime that Bangalore is attempting to implement. The municipality is in the process of constructing one such center in each ward of the city and these centers will serve as the space where dry waste obtained from households and commercial establishments is sorted, graded, and sold to vendors. These centers are being set up and operated in the form of a public-private partnership, where the state provides the land and infrastructure, and private parties finance and run operations. While initially a number of private companies, including corporations like the Indian Tobacco Company, were favored by middle class activists to run these centers, outreach by Hasirudala to certain key individuals, including Savitha, helped secure some of these centers for waste pickers. Today, there are 40 waste picker operated dry waste collection centers in Bangalore that provide incomes for around 140 waste pickers. In addition, Hasirudala members are providing total waste management services to a number of apartment complexes and gated communities, out-competing private enterprises and other middle class-led NGOs (personal communication). As waste pickers are given access to the private spaces of the middle classes, more “contact zones” emerge, potentially creating the conditions for the disruption of hegemonic ideas about waste pickers and waste work in general.

#### 4.9. Conclusion: Greening the Garden City

It was the final session of the Wake up Clean up (WUCU) expo organized by the BBMP in collaboration with various middle class NGOs and advocacy groups. This session was devoted to summing up the various activities that had taken place the previous week. On stage were some of the key actors and decision makers in Bangalore’s municipal administration: the commissioner of the BBMP, a former chairman of the Karnataka State Pollution Control Board, a Municipal Legislative Assembly member from a nearby constituency and a few waste management advocates and activists. A moderator posed questions to the panelists who responded with their vision for what Bangalore needed to do to “Wake Up and Clean Up.” Panelists spoke about the need for citizen and corporate involvement, about how the BBMP needed to set up decentralized waste processing centers, and how private contractors needed to be involved. Towards the end of the panel, an SWMRT member who was on stage finally spoke up. This particular individual was a former-NRI in his eighties who had moved back to Bangalore to retire after having worked

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through these institutional arrangements access recyclable materials. Municipal authorities in Indian cities like Pune and New Delhi are also becoming cognizant of the benefits of partnering with waste picker groups to carry out municipal solid waste management functions (Vergara and Tchobanoglous 2012). These developments are largely thanks to the efforts of waste picker advocates and organizations like Chintan in New Delhi, and SWACH in Pune. The role of informal sector waste workers in managing urban environments was also recently highlighted in the popular TV show *Satyameva Jayate*, hosted by the Bollywood actor Aamir Khan. These developments suggest that the work and roles of the informal sector might be becoming more visible. However on the other hand, the state is also actively trying to promote Waste to Energy projects in urban India, further threatening waste picker and waste dealer livelihoods (Lakshmi 2011).

in Germany for many decades. Upon his return he became very active with his local RWA and was involved in various clean-up efforts. Frustrated by the failures of his cleanup efforts, he became interested in decentralized recycling and composting after a chance encounter with a vice-president of the Indian Tobacco Corporation. He worked with ITC to introduce their Wealth out of Waste (WOW) program in his neighborhood. This individual had since helped ITC expand their operations by linking them up with many other neighborhoods and apartment complexes. This had brought him into conflict with other actors who felt that informal sector service providers were being outcompeted by ITC. However, that evening at the WUCU event, this individual became the spokesperson and defendant for the rights of waste pickers. Standing up in front of the audience he said *“The one group we haven’t talked about yet are the waste pickers. These are the people who need waste to survive and know how to separate it too. If we don’t include them in these systems, they will have no choice but to become beggars or thieves. So we must include them”*.

The vignette above illustrates how middle class waste activist’s understanding of and attitudes to informal sector waste pickers have evolved through their engagement with waste pickers in contact zones. The individual described above moved from being oblivious of the existence and situation of waste pickers to then advocating for their rights in a public and high-profile forum. Such transformations are indicative of the tempering of bourgeois environmentalism and are precursors to the formation of pragmatic partnerships between middle class actors and groups representing informal sector waste workers.

In this paper, I demonstrated how some middle class communities in Bangalore are advocating for decentralized zero waste management systems that emphasize source segregation, waste reduction, recycling, and composting. Frustrated by the failure of previous centralized efforts at waste management, they have tried to “take matters into their own hands” by instituting neighborhood-based waste management initiatives. They favor these options over more technology and capital-intensive solutions like Waste to Energy or landfilling because zero waste management resonates with their globally-derived environmental ethics and their political philosophies of citizen responsibility. The individuals and communities I describe in this paper have internalized and become committed to particular environmental imaginaries and ways of managing waste. Because these eco-friendly waste management systems are inherently labor-intensive, and because private enterprises are unwilling and unable to manage waste sorting and processing centers, middle class actors are beginning to interact and collaborate with informal sector waste pickers and waste dealers. These interactions are leading to the creation of cross-class coalitions that I call *pragmatic partnerships*, where middle class and informal sector actors jointly support the rights of informal sector waste workers to participate in zero waste management systems.

I argue that this case offers a critical extension to the concept of bourgeois environmentalism, which posits that the middle classes strategically deploy discourses on environmental protection, citizenship, and civic engagement to envision and execute a public sphere that excludes the city’s poor. These zero waste management activists, while similar to the bourgeois environmentalists described by Baviskar (2011) in many ways, practice a new brand of environmental politics that

is potentially less illiberal and exclusionary. Instead of criminalizing and de-valoring the activities of waste pickers, they are willing to acknowledge a role and place for this section of the urban poor in waste management systems. Therefore, in the environmentally-minded communities described in this paper, we see some situations where the middle classes support the inclusion of informal sector waste workers, a particularly marginalized section of Bangalore's urban poor.

While a waste management regime that prioritizes decentralization, recycling, and composting provides new opportunities for economic inclusion, it also reproduces and potentially exacerbates culturally-embedded hierarchies and patterns of exclusion. As Ray and Qayuum (2011) describe, "cultures of servitude" that normalize forms of domination and inequality are fundamental to the identity and lifestyle politics of the middle classes. Because the middle classes cannot and will not engage in waste work themselves, they come to engage and negotiate with working class waste workers, who are in turn articulating their right to inclusion in terms of their utility as green workers. Yet, cultures of servitude are replicated and reproduced as cultures of service in waste management systems. Waste pickers that have the skills to, for example, distinguish 10 different types of plastics are in some of these new arrangements demoted to the role of an unquestioning wage laborer who does what he or she is told. Their character, work ethics, and employability are constantly questioned by middle class residents and activists alike, and the waste picker is thought to be inadequate as an employee who needs to better himself/herself to work in these modern and green waste management systems. Thus, a logic of client-server relations govern these new regimes, where informal sector waste workers have to go through the middle classes to access waste, while previously they were able to pick waste off the street without having to go through intermediaries.

This growing enclosure of waste from an urban commons that sustains thousands (Gidwani and Reddy 2011) to a commodity that is tightly regulated according to certain norms transforms the "bundles of powers"<sup>50</sup> that waste pickers need to access it, and makes them beholden to a set of middle class actors. Thus, the freedom and entrepreneurialism that attracts many individuals to waste picking is potentially compromised as they enter new employer-employee relationships that are embedded within a pre-existing set of hierarchical social relations. The commoditization of waste, and its incorporation into new networks of governance and exchange also bring up complicated questions about who has the right to access the monetary value in waste. Achieving a waste management regime that will not reproduce culturally-embedded patterns of hierarchy and exclusion will require more than opportunities for economic inclusion. Rather, it is the democratic politics of urban waste governance that remains unresolved today, and that is critical to the establishment of a sustainable, just, and economically-viable waste management regime in Indian cities.

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<sup>50</sup> The concept of 'bundles of powers' was introduced by Ribot and Peluso (2003) in 'Theory of Access'. They define access as the ability to derive benefit from things, even without necessarily having the rights of property over them.

## Chapter 5

### Conclusion: The reproduction and transformation of middle class cultural and environmental politics

In the concluding chapter of this dissertation, I synthesize the arguments presented in the preceding three chapters to present the main findings of this research project and highlight my contributions to theories of environmental behaviors and middle class environmental politics. The findings of this dissertation speak to the literatures on middle class cultural politics, democratic politics, and relational class politics in the Indian city. They also provide some insights for policy-makers, environmental groups, and other stakeholders interested in the socially just greening of Indian cities. I end by discussing some of the limitations of this work and point to future directions in this research.

#### 5.1. Main findings

##### 5.1.1. The practice of sustainable behaviors is directly enabled by privilege

Middle class bicycling and waste management practices are directly enabled by middle class privilege. Applying Bourdieu's framework (Bourdieu 2002), I argue that the middle classes deploy their accumulated economic, social, and cultural capital to change infrastructures and social norms, and use a diversity of political strategies to recruit state support for their practices. This puts their lifestyle practices in stark contrast with the "quotidian" sustainability practiced by members of the poor and working classes, for whom bicycling and recycling are fundamentally livelihood strategies.

The middle classes need resources to bicycle and manage waste, resources that are recognizable as forms of economic capital. Almost all my informants enjoyed lifestyles of comfort and convenience, enabled by high incomes. Consequently they were able to invest both time and money to make bicycling and waste management practices more convenient and status-affirming. In the bicycling case, this included buying high-quality bicycles and specialized gear to make bicycle rides safer and more pleasant. In the case of waste management, practitioners invested in specialized composting solutions and recycling equipment. Waste management practices were also subsidized by paid servitude. Middle class households relied on domestic help to carry out daily cleaning and waste removal tasks, and neighborhood systems employed waste workers to segregate and transport waste. Those individuals who became involved in advocacy also needed economic capital. For example, some practitioners who quit their jobs to start bicycle stores or volunteer for non-profits were able to take this financial risk as they had either accumulated savings or owned property, or because they could rely on well-employed family members for financial security.

Middle class practitioners cultivated social networks and relied on social connections to stabilize

their practices and recruit new practitioners.<sup>51</sup> Collective coordination between middle class actors enabled behavior change at the individual, household, and neighborhood levels. In Chapter 2 and 3, I showed how bicycling and waste management practices are anchored in particular forms of community. Communities, whose formation is facilitated by the Internet, and social media, but also offline forums like neighborhood and apartment associations, workplaces, and social events, served as critical sites for social learning. Within these communities, individuals were able to contest older social norms and create new ones. They could build and share skills, provide support in the form of information and encouragement, and create an environment where nascent practitioners could gain the ability and conviction to become full-fledged waste managers and bicyclists. Because these communities were exclusively middle class in composition, they also served to create and maintain distinctions between middle class practitioners and working class groups.

Community members were also well endowed in cultural capital. This cultural capital, which exists in the embodied state (long-lasting dispositions of the mind and body), the objectified state (cultural goods), and institutionalized state (obtained through educational qualifications) (Bourdieu 2002), is the very bed-rock of middle class identity and status in modern India (Baviskar and Ray 2011). In my cases, cultural capital was instrumental in bicycling and waste management practice and advocacy in two ways. The first form of cultural capital was evident in the range of expertise that the middle classes had access to because members of their social networks were employed and trained as lawyers, managers, accountants, urban planners, researchers, and media professionals. This institutionalized form of cultural capital, accessed through social capital (i.e. through communities, kinship networks, educational networks, clubs etc.), helped bicycling and waste management practitioners and advocates gain more publicity for their activities (through the media), generate research and data to support their schemes (accountants and researchers), draft and pursue legal cases in the courts (lawyers), and devise plans to improve bicycling and waste management infrastructure (urban planners). This readily available pool of “experts”, a product of accumulated privilege, expedited the spread and institutionalization of these practices among middle class communities and in the city as a whole.

Individual members within these communities of practice also functioned as political actors who strategically lobbied various arms of the state, whether it be municipal officials, bureaucrats in the state government, local elected representatives, or the judiciary through public interest litigations. Through these lobbying efforts they were able to expand bicycling, recycling, and composting practices outside private domains and effect change in public spaces and infrastructures. In the case of bicycling, some community members made connections with officials in the Department of Urban Land Transport and with the local elected representative from the state assembly, presenting them with a proposal for building bicycle lanes in a middle class neighborhood. By liaising both with bureaucrats and with members of the political class, and using their cultural and

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<sup>51</sup> These social networks and connections function as social capital defined by Bourdieu as “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition – or in other words, to membership in a group which provides each of its members with the backing of the collectivity-owned capital, a ‘credential’ which entitles them to credit, in the various senses of the word” (Bourdieu 2002, 88)



social capital to devise a scheme that the government could then implement, bicyclists were able to change how space on roads was allocated. However, even though these political strategies of the middle classes were effective in enacting some changes to physical spaces, these changes were short-lived. Bangalore's bicycle lanes today only exist in theory. Cars and other automobiles are often parked on these lanes, blocking the path of bicyclists. In line with what Baviskar and others have documented, I observed that while the middle classes have been effective in getting the judiciary and high-level officials to enact their visions, inertia within bureaucracies has limited their impact (Baviskar 2011). Thus, while higher functionaries of the state were receptive to these ideas, the lower rung of municipal and law-enforcement officers, like traffic police and zonal engineers, are less invested in maintaining these new infrastructures.

With respect to political effectiveness, the waste management case was very different from the bicycling case. While political activism was a relatively minor part of the bicycling experience in Bangalore, it was central in waste management communities. Emboldened by their successes in implementing recycling and composting schemes in their homes and gated complexes, middle class waste managers sought to scale these neighborhood-based initiatives to city-wide systems. Because many individuals who were involved in waste management were also members of Resident Welfare Associations, they were already well-versed in various political strategies. Many of them had prior experience lobbying and working with lower-level municipal functionaries like the zonal engineer or the ward-level sanitation engineer, and knew the local elected representative (for the city council) and his/her team well. Some of them had connections to higher level bureaucrats in the municipality and in the state government. This increased influence of RWA and other "civil society" actors is attributable to the fact that the state had begun to privilege these voices in urban planning by setting up mechanisms for RWA involvement (Ghertner 2011b).<sup>52</sup> For example, when Bangalore was reworking its waste management codes, the municipal commissioner organized a special town-hall meeting for Resident Welfare Associations, which went on for four hours. In that forum, RWA leaders were able to directly influence the head of the municipal administration. Middle class and elite activists also engage the state through elite participation forums that resemble the erstwhile Bangalore Agenda Task Force. Finally, a critical mode of political participation was through various forms of judicial activism, like public interest litigations submitted to the Karnataka High Court (the apex court in the state of Karnataka) and the *lok adalat* (an alternative dispute resolution system), and more recently to the National Green Tribunal.

These diverse modes of political participation reflect the powerful position that this dominant fraction of Indian society occupies in cities like Bangalore. Middle class activists are with relative

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<sup>52</sup> However one of the outcomes of the public interest litigation filed by middle class waste activists and a non-government environmental and social justice organization, the Environment Support Group, was the court-mandated institution of ward committees. Ward committees were mandated in the 74th amendment to the Constitution on Decentralization and are meant to be a way of democratizing governance by facilitating local "citizen" participation. The rules require some committee slots to be reserved for members from marginalized backgrounds (women, and scheduled castes and tribes). Thus, unlike the RWA mode of participation, which tends to be used mostly by elite and middle class groups, ward committees have a broader base of participation. However, in practice, there have been many issues with constituting ward committees in Bangalore, attributable to a diversity of factors including institutional lethargy and intimidation by quasi-political actors.

ease able to access and communicate with various branches of the state. As propertied members of the city, they can act through Residents Welfare Associations to lobby decision-makers in government. By making claims to speak for the welfare of the city and all its occupants, they file public interest litigations in the courts. However, both these modes of participation arise from and rely on the elite status of the middle classes in urban India. These political actions in turn support the promulgation of sustainable practices like bicycling and recycling. Thus the practice of sustainable behaviors is directly enabled by privilege.

#### 5.1.2. The middle classes create *defensive distinctions* invoking environmental discourses

The middle classes invoke environmental discourses to make practices that are actively associated with thrift and deprivation “appropriate” for middle class status, creating *defensive distinctions* that render them both elite and ethical simultaneously. As I outline in Chapter 1, middle class identity is fundamentally dependent on the ability of individuals to distinguish themselves from the lower orders through public and private practices. Status-affirming practices include owning and using a private automobile, wearing branded clothing and accessories, shopping in supermarkets and malls, and eating out. Employing domestic workers to clean homes and perform other housekeeping duties is also a practice that communicates one’s middle class or elite status. These daily practices are signifiers of social status and adopting them is a way to signal entry into the ambiguous category that is “middle class” (Wilhite 2008; Mathur 2010; Upadhyya 2009). Bicycling, recycling, and composting disrupt two prominent practices of middle class distinction, the use of cars and motorbikes, and the distancing of waste, respectively. To compensate for these disruptions, the middle class invoke environmental discourses to separate their bicycling, recycling, and composting practices from the “quotidian” practices of the poor. They simultaneously elevate their practices to an “elite” status by investing resources to make their bicycling and waste management practices look very different from the practices of the poor. These defensive distinctions enable middle class actors to take up “low status” practices, while retaining and maintaining their privileged positions in Indian society.

Middle class bicyclists use several strategies to draw these defensive distinctions between themselves and two very disparate populations, middle class car-users, and the bicycling poor. With their environmental discourses and signage, middle class bicyclists made claims to being ethical actors and ecological citizens. Their high-end bicycles and special gear reinforced their elite class status. By doing this, they are able to defend their class positions and maintain their social status in personal and professional circles. They have simultaneously stabilized themselves as ethical subjects within their own socio-economic class. By creating communities and collective identities that made claims to the ethical and elite simultaneously, middle class cyclists distinguished themselves from both the unethical and callous car user, and the inadvertently ethical, but otherwise insignificant working class bicyclist.

In the waste management case, these defensive distinctions were maintained primarily through relationships of servitude between middle class families and waste workers, and by defining

middle class waste engagement as an expression of ecological citizenship. In other words, if a middle class person separated trash in their home, deposited their recyclable waste with a scrap dealer, or composted green waste, these acts were framed as acts of ecological stewardship. If waste workers within the home or in the neighborhood carried out the same action, it was assumed that they were just doing their jobs and making ends meet. Because the middle classes to a large extent voluntarily decided to adopt these sustainable waste management practices, they saw themselves as citizens contributing to better cities and better planets. Waste workers and others who made a living by working with waste were conceptualized as having self-interested motivations or even vested interests.<sup>53</sup>

It should also be noted that the time and energy put into creating defensive distinctions was much more apparent in the bicycling communities compared to the waste management groups. I surmise that this is because waste workers typically belong to India's most marginalized castes, and caste already serves as a significant marker of distinction between middle class homeowners and the waste workers they employ. In other words, it would be hard to mistake a middle class woman or man for a waste picker or domestic helper, while a middle class bicyclist is more likely to be mistaken for a working class bicyclist on the street.

This *othering* of the poor, which is pervasive in both types of practices, reproduces enduring social inequalities along class (and caste) lines. This othering is especially problematic in a political context where the state is highly receptive to the needs of middle class communities, but has a record of marginalizing the urban poor. Therefore if middle class bicycling and waste management communities remain exclusive, and cultivate these practices as *classed* practices of distinction, it is likely to further marginalize working class voices in transportation and waste management conversations. Further, these defensive distinctions can deepen the stigma associated with poor cycling identities and with waste work. Finally, practices of distinction also limit the scope of these middle class practices to scale and gain city-wide traction. This is particularly apparent in the bicycling case, where bicycling in Bangalore today is evolving as a purely middle class sub-culture that has limited or no potential to transform transportation infrastructures and amenities in Bangalore.

#### 5.1.3. Pragmatic partnerships emerge between middle class actors and waste workers

The final and most novel finding of my dissertation is based on the waste management case. In my study of waste management communities in Bangalore, I found interesting differences in how the middle classes view and interact with the poor, compared to what has been documented by previous studies examining middle class environmental politics in India. My research demonstrates that under certain conditions, the middle classes whose politics are characteristically illiberal (Fernandes and Heller 2006; Fernandes 2009; Mawdsley 2009; Baviskar 2003) and who have in many instances,<sup>54</sup> lobbied the state to have informal settlements removed from the city

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<sup>53</sup> This speaks to what Anjaria documents in Mumbai where middle class civic organizers identify street vendors as having vested interests, while they themselves claim to speak in the public interest (Anjaria 2009).

<sup>54</sup> Though not as much in the city of Bangalore as elsewhere

(Ghertner 2011a; Arabindoo 2005; Bhan 2009; Baviskar 2003), are willing to create *pragmatic partnerships* with certain members of the urban poor. I call these relationships pragmatic because they were not fundamentally driven by an interest in the lives of the poor or the conditions of their poverty, but borne out of an understanding that middle class visions for “clean and green” cities may not materialize without the support of informal sector waste workers. Motivated by these pragmatic concerns, the middle classes began to partner with groups representing waste pickers, itinerant buyers, and scrap dealers.

As I show in Chapter 3, influenced by global discourses on recycling and sustainability, and desirous of living in city environments that are both “clean and green”, many middle class neighborhoods have implemented recycling and composting schemes, changing waste disposal practices within homes and instituting new supply chains of waste collection and processing. Emboldened both by local success and by repeated crises in Bangalore’s preexisting solid waste management systems, these middle class actors are trying to replicate and scale these socio-technical innovations, and transform how the entire city manages its municipal waste. During this process, middle class green movements have developed alliances with working class groups. They form connections that were necessitated both by their ideological and moral commitments to zero-waste management, by the labor-intensive nature of eco-friendly solutions being proposed to handle the waste challenge, and by the fact that private companies were not very interested in operating zero waste systems. Cross-class alliances and connections have in turn opened up new spaces of economic inclusion for informal sector waste workers and enabled informal sector waste workers to gain recognition, in the form of municipality-issued identity cards, from the state for the services they provide to the city. Waste pickers are also increasingly described as “silent environmentalists”, contesting the idea that ecological stewardship is purely the pursuit of the middle class “citizen” and not the waste worker. Cross-class coalitions formed around waste management are consequently bringing substantive improvements to the lives of a particular section of Bangalore’s urban poor.

My finding that the middle classes, through the adoption of sustainability practices, develop pragmatic partnerships with sections of the urban poor and working classes is novel.<sup>55</sup> Some members of the middle classes support the agitations of communities living near landfills against the indiscriminate dumping of waste on their grazing and farming lands. Others have begun to work with waste pickers and advocate for their rights in various forums. For example, waste-engaged software engineers working for multinational corporations are using their skills to operate

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<sup>55</sup> Appadurai (2001) also discusses an example of coalitions between disfranchised members of the urban poor and specialized NGOs that have a mostly-middle class support base. I would argue that the pragmatic partnerships I describe in my work are different from what Appadurai describes in three ways; first, they are not created with poverty reduction as their main goal. Second, these pragmatic partnerships have a diffuse and networked organizational forms, with actual composition of the coalition changing over time. And finally, unlike the case that Appadurai analyzes, where the knowledge and capacities of the poor are placed at the center of the coalition’s work, in the cases I document, informal sector waste workers are rarely allowed to lead initiatives. Their roles are largely subordinate to those of middle class members (Appadurai 2001).

a portal that links waste pickers with waste producers.<sup>56</sup> Some members of the middle classes are thus willing to deploy their social, cultural, and political capital to support the needs and agendas of waste workers and other marginalized groups. This suggests that there is perhaps some potential for more socially just forms of sustainability and environmental action in Indian cities.

My work reminds us that the environmental politics practiced by the middle classes in India are dynamic and contingent. As the middle classes grow in size and discursive power, their aspirations to live in modern “clean and green” cities strengthen, as do their desires to identify with a cosmopolitan culture of modernity. As environmental ideas and practices become more and more a part of *Western* modernity, they also become attractive to the transnational elites of India who take their cues from California and Europe. These changes produce new practices and new dynamics in middle class environmentalism. The new (individualized environmentalism) is mixed with the old (cultures of servitude) to then produce hitherto under-analyzed interactions and relationships. In the following section, I elaborate on how these new political dynamics advance theoretical understandings of environmental politics.

## 5.2. Contributions to theory

### 5.2.1. Contributions to theories on environmental behaviors

By applying theories on environmental behaviors and sustainable consumption that have been developed in a Western context to cases in the Global South, I complicate and extend dominant theories on environmental behaviors. In Chapter 2, where I use social practice theory (Reckwitz 2002; Warde 2005; Spaargaren 2011) to understand how bicycling practices are made possible among the middle classes, I demonstrate the theory’s applicability in a novel context. Further, by combining the social practice analytic with practice-based conceptions of class identity in India, I demonstrate how sustainable practices become *classed* practices that serve to reproduce existing patterns of difference and privilege. This focus on the *class* implications of sustainable consumption and environmental behaviors is a relatively new endeavor in this field (with some notable exceptions such as Carfagna et al. 2014 and Barendregt and Jaffe 2014). By making this connection, I re-link contemporary articulations of social practice theory, which tend to be apolitical, with Bourdieu’s original theory of practice and social distinction (Bourdieu 1984). By re-politicizing social practices and viewing them in relation to identity, cultural, and democratic politics, I demonstrate how social practices, even those that are sustainable or environmental, can maintain and propagate the structural basis of class power.

The Indian case also points to the need for theories of environmental behaviors to consider the role of *other agents* in making sustainable consumption choices possible among “consumers”. To

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<sup>56</sup> This portal which is called I Got Garbage was developed by Mindtree, a technology company in Bangalore, in collaboration with other companies, NGOs and Hasirudala. For more details see : <http://www.igotgarbage.com/cms/Article/id/102/41af71c1-e26d-41da-ac97-6c8fdb5dac6d/0> (Last accessed 5/12/2015)

elaborate, many theories of sustainable consumption try to predict how and why individuals might change their behaviors to become more sustainable. Some of these approaches, particularly in disciplines such as behavioral economics or social psychology, follow an approach called methodological individualism. What this means is that an individual or agent is the main unit of study. The researcher then examines the behavior of the individual, evaluating how other factors, such as social norms, attitudes, information, or infrastructure affect an individuals' decisions and actions (Jackson 2008). However these approaches do not have room to consider how *other* individuals, through relationships of service or servitude, make environmental behaviors possible for these sustainable consumers in the first place. While social practice theory moves away from methodological individualism to instead put practices at the center of analysis and looks at how agency and structure combine to change or stabilize practices, it still does not explicitly consider how a practice might be made possible by a network of agents, who might have hierarchical relationships with each other. In the waste management case in particular, where recycling and composting activities are subsidized by paid labor in the home and in the neighborhood, we see the importance of considering how other agents, who are often in conditions of servitude, make environmental behaviors possible among the middle classes and the elite.

In Chapter 3, I discuss middle class neighborhood waste management initiatives using Andrew Dobson's normative theory of ecological citizenship (Dobson 2003). My case study shows that while ecological citizenship theory helps identify the potential that networked elite action has for engendering sustainability, the culturally-situated dynamics of waste management in urban India demonstrates that the theory has limited applicability in situations where pro-environmental behaviors are made possible by collective networks that are composed of people with different levels of obligation, capacity, and social status, and where contractual relationships of service and servitude exist between members of these networks. This analysis points to the need for a focus on the processes and political arrangements that produce ecological citizenships and pro-environmental behaviors, and an explicit engagement with the roles, capacities, priorities, and powers of the diverse actors who are involved in these processes. As Latta suggests, recasting ecological citizenship as a democratic process with a focus on the conflicts that shape it evaluates the kinds of relations that might promote a just and sustainable society (Latta 2007). For the waste management cases I discussed here, this would render the dynamics of voluntary action and incorporation in ecological citizenship more visible and allow an evaluation of the differential contribution of actors in relation to these positionalities. It would also politicize the role of other agents in subsidizing the environmentalism of the privileged.

#### 5.2.2. Contributions to theories on middle class cultural and environmental politics

My work complements and extends contemporary theorizations of middle class cultural and environmental politics. First, in line with what Baviskar and Ray, Fernandes and Heller, and others have documented, I show that the category of middle class is constantly negotiated through everyday practices and not just defined by income levels and employment status alone (Baviskar and Ray 2011; Fernandes and Heller 2006; Wilhite 2008). By showing how social practices that have low-status connotations in Indian society are accommodated into middle class lives, I demonstrate the fluidity of middle class identities and the political work that goes into expanding

the constellation of social practices that constitute middle classness. I also show that these middle class lifestyle practices are constantly reworked in response to global and local anxieties, and that environmental discourses are beginning to influence the daily habits of some members of the middle classes. I also show that “green” practices are becoming a way of practicing distinction in Bangalore. This suggests that middle class consumers are following in the footsteps of their Western counterparts and have already begun to display eco-friendly goods and practices as signs of status (Griskevicius, Tybur, and Van den Bergh 2010; Sexton and Sexton 2014).

However, my main contribution to the field of middle class environmental politics lies in the alternatives I develop to Amita Baviskar’s concept of bourgeois environmentalism (Baviskar 2011). Baviskar argues that the middle classes invoke discourses of environmental protection and citizenship to lay claim to public spaces and cleanse the city of the poor. By assigning blame for environmental degradation on to the poor, they absolve themselves of responsibility for environmental damages from their consumption practices. In my case study, I show that some members of the middle classes are becoming increasingly aware of the impacts of their consumption and waste disposal practices on urban environments, and see the adoption of sustainable behaviors as a way of ameliorating some of those impacts. I also show that under some conditions, middle class civic and environmental activists partner with members of the urban poor to articulate a shared vision for urban spaces and futures.

These relationships are *pragmatic partnerships* that are driven by the nascent commitments members of the middle classes have made to sustainable methods of waste management and their culturally-informed attitudes towards waste work and labor. Because the middle classes want clean and green cities, but are unwilling to do much of the cleaning and greening themselves, they become dependent on waste workers to carry out these tasks. My work also highlights how relevant sections of the urban poor respond to middle class environmental activism. Waste pickers strategically adopt the language and discourses of the middle classes, calling themselves “robust entrepreneurs” and “silent environmentalists”. By doing this, they stake claims to be included in waste management systems and in the city at large in terms of their utility as green workers. Therefore, through this case I show that the environment becomes the site of a range of interactions between the middle classes and the poor, ranging from distinction and appropriation, to accommodation and negotiation.

### 5.3. Policy and practitioner relevant findings

The findings of my dissertation have insights for policy-makers, civil society actors, and other groups interested in promoting sustainable lifestyles and livelihoods in Indian cities. As I chronicle in Chapters 2 and 3, the conditions for changing individual behaviors are produced in informal networks and communities that serve as spaces for social learning. While studies in the Global North have documented the role of networks and communities (Kennedy 2011; Sahakian and Wilhite 2014; Seyfang 2010) in facilitating the spread of sustainable consumption practices, my work is one of the first to demonstrate this in an emerging economy context. It suggests that for stakeholders interested in “greening” the consumption practices of India’s emerging middle classes, the trick might lie in supporting existing social networks and leveraging these networks to

transmit new ideas, norms, and practices. It also suggests that pre-existing modes of organizing, such as Residents Welfare Associations, might be more effective at generating local change than other organizational forms created around sustainability.

The second and much more vital policy recommendation of my dissertation is in relation to Bangalore's attempts to implement zero waste management systems. In response to the garbage crisis and a public interest litigation, the apex court in Bangalore directed the municipality to phase out landfilling and instead institute decentralized waste management systems that prioritized the source segregation of waste, recycling, composting and biomethanation. While the implementation of these directives has been fraught with challenges, controversies, and significant hurdles, there have been some successful implementation stories. In these successes, some factors stand out as being critical to making individuals and households to change their waste disposal behavior. These include having leaders at the local level who can design educational materials that are pertinent to the community they work in and support the actions of both middle class residents and the workers they employ. Therefore identifying and cultivating local leadership might be critical to the successful roll-out of zero waste schemes in more neighborhoods and cities.

Another critical feature of waste management advocacy are the partnerships that middle class actors have built with other constituencies, including informal sector waste workers. Here, a comparison with the bicycling case is fruitful. Bicycling advocates have been largely unsuccessful in influencing the city government to build more bicycling infrastructure. This can be partially attributed to the fact that bicycling advocates have not tried to build a broader base for their advocacy and are a very small community relative to the overall population of Bangalore. On the other hand, waste management activists have built connections with local municipal authorities, private contractors, and organizations that represent informal sector waste workers. This ability to form partnerships across diverse groups is critical to the sustenance and growth of zero waste management systems. Therefore, actors interesting in promoting sustainable practices must realize that they will have to build partnerships with a variety of stakeholders. In the bicycling case, this would involve building connections with working class bicyclists and with mass transit users to jointly articulate for multi-modal public and non-motorized transport systems.

Bangalore is also pioneering decentralized waste sorting centers called Dry Waste Collection Centers (DWCC). These DWCCs are public-community partnerships, where the state provides the infrastructure, but the day-to-day operations are carried out by non-governmental organizations, scrap dealers from the informal sector, or by waste picker cooperatives. These dry waste collection centers were initially conceptualized by middle class waste management activists, who adapted models from Germany and Italy to suit the Indian context. These centers provide a locally accessible site for households and sanitation workers to either donate or sell recyclable waste, and offer waste pickers and other informal sector waste workers better working conditions.

Finally, one of the most significant developments in Bangalore is the official recognition of waste pickers and scrap dealers via municipality-issued identity cards. This move, which was an outcome of one of the petitions filed by the middle class-waste picker coalition in the courts, provides an identity card to each verified waste picker. These cards legitimate waste picking as a valid and



valuable occupation in the city. This is a huge change from past situations where waste pickers have been treated as criminals: Once waste reaches a municipal bin or collection site, it officially becomes the property of the state or of the private contractor employed by the state. Waste pickers picking through bins can be cited for stealing and this has been used as a tool to further oppress this already much marginalized group. An identity card gives waste pickers the right to collect waste. For many, this is the first legal document they have ever received in their lives and legitimates their presence in the city. Having this form of identification also opens up access to other entitlements like health insurance and educational support for children. Thus, the Bangalore waste management model delivers both environmental and social benefits and is worth emulating in other Indian and developing world cities.

#### 5.4. Limitations of this research

This research, like most efforts at constructing meaning from the social world, suffers from many flaws and limitations. The biggest of these is that my analysis of middle class environmental politics presents primarily the viewpoints of middle class actors themselves, obtained through in-depth interviews and community engagement. While this viewpoint is augmented by observations at public events that involved non-middle class actors, this dissertation focused on middle class perspectives. I did not interview working class bicyclists, but I did notice their conspicuous absence from middle class bicycling communities and gatherings. While I did not formally interview any waste pickers or scrap dealers, I interacted with a number of them informally during my time as an intern and consultant with Hasirudala, a waste picker advocacy organization. I also interviewed middle class activists who worked with waste pickers as coordinators and organizers. Nevertheless, my analysis of both the bicycling and waste management case relies mainly on my interviews with middle class actors and observations at middle-class led public events. Therefore my work implicitly privileges middle class and elite voices at the expense of the voices of other actors who might be described as “sub-altern”. A follow-up project could examine bicycling and zero waste management practices and systems from the perspective of “captive/utility” cyclists, waste pickers, scrap dealers, and sanitation workers. Such a project would focus on understanding these forms of “vernacular sustainability” (Greenberg 2013), and would greatly nuance and enhance the arguments presented in this dissertation.

The central analytic frame that my dissertation engages with is that of social class. I view bicycling and waste management as *classed* practices and study how these practices in turn impact and mediate class identities and relationships. Consequently, my dissertation does not explicitly analyze other social vectors such as caste, gender, and regional and linguistic backgrounds. An analysis of the caste and gender politics represented by bicycling and waste management could provide important insights into middle class cultural politics. For example, as I note elsewhere, Bangalore’s bicycling communities are predominantly composed of men between the ages of 20 and 40, while waste management practices are spearheaded by women. This gendered dimension of sustainable practices deserves further analysis and will be the subject of future writing. Similarly, caste backgrounds are heavily implicated in waste work. Handling waste is considered to be an “impure” activity by upper caste *Brahmins*. Working with waste has consequently been viewed as an undesirable task reserved for some of the most marginalized groups in Indian society.

Sanitation workers and waste pickers are often recruited from among India's Scheduled Castes and Tribes. A future study could examine how these caste-based notions of waste, purity, and impurity impact and influence zero waste management practices and systems in Indian cities.

Finally, this work does not problematize whether these practices of bicycling, recycling, and composting actually produce positive environmental outcomes. I take for granted the often made assumption that these practices produce positive environmental benefits and can be scaled up successfully. Recent work on zero waste management and recycling has begun to question this assumption, pointing to the fact despite 20 years of zero waste activism and implementation in parts of the US, recycling rates have not gone up significantly (MacBride 2011). Similarly, in the Indian context, some scholars and public intellectuals have questioned whether bicycling is really a viable transport option in urban India, arguing that the state should instead focus on improving public transit systems (Srivastava 2013). Future work could apply methods and tools from industrial ecology such as life cycle analysis to quantify the environmental benefits produced by these practices, and evaluate their potential to become city-wide systems.

## 5.5. Implications and future directions

Some members of Bangalore's middle classes are riding bicycles and sorting their trash. They take up these practices in the name of the environment and city stewardship. They also collectively devise ways to make practices that are predominantly associated with the "lower orders" of modernizing India appropriate for middle class "status", by creating *defensive distinctions*. In the process of adopting waste management practices, they also form *pragmatic partnerships* with members of the urban poor. While the absolute numbers of bicyclists and waste managers in Bangalore might be small compared to the total population of individuals and households who might self-identify as middle class in Bangalore or India, these developments have city-wide, nationwide, and perhaps even global relevance.

The first implication of these developments lies in our understanding of what daily practices constitute middle class identity, and whether the resource-intensive practices among these can be replaced by more environmentally-benign actions. As the Introduction to my dissertation outlines, the ascendance of consumer classes in countries like India and China is being hailed as a potential catastrophe for global environments. Much of this concern is driven by the fact that these new consumer classes are adopting resource-intensive consumption practices common in the West, such as owning and using personal automobiles or eating meat (Myers and Kent 2003). These consumption practices are also sometimes status-driven (Wilhite 2008; Upadhyaya 2008), in that ownership of a car for example has become an ubiquitous way of communicating social status and distinction. In such a context, finding ways to disrupt the dominant image of the middle classes as a consuming class is very important.

Can individuals and families emerging out of poverty in India and China avoid adopting ecologically-intensive practices, while still achieving economic security, decent lives, and higher social status? In other words, how can we achieve social status without resource-intensive consumption? My dissertation suggests a few ways in which this could happen. In the bicycling

case, we see how community practitioners invoke environmental and recreational discourses to elevate the bicycling practice, and make it ethical and elite simultaneously. Thus it becomes possible for a middle class person to display status using an expensive bicycle as opposed to a new car or motorbike. Handling waste, a task that is associated with very negative connotations fractured along caste lines, becomes a fashionable and ethical act among middle class women. Even though these *defensive distinctions* serve to maintain the hegemonic status of the middle classes, the adoption of these practices also disrupt dominant ideas on the middle classes “superior” statuses. In these interstices we see alternate practices and imaginations appearing that threaten to subvert the very distinctions upon which middle class identity is based; i.e. the distinctions created through consumption and relationships of servitude.

The search for alternative models of middle class lifestyles leads me to the second implication of my work, which is with respect to class relations and poverty politics in the city. In this I follow Lawson and Elwood to look for an “ontology of a politics of possibility” (Lawson and Elwood 2014, 210): I look for the moments where the manner in which the privileged classes understand and politicize poverty and the poor is transformed. Lawson and Elwood highlight how the privileged classes play a pivotal role in creating and circulating dominant discourses about the nature and causes of poverty; i.e. framing poverty as a consequence of the individual failure and immoral choices of the poor. In Indian cities, middle class actors have traditionally tended to ascribe to this neoliberal narrative of poverty (Baviskar and Ray 2011). In contrast to this, I witnessed how middle class waste management activists, through encounters with waste workers in contact zones began to rework their preexisting stereotypes of waste pickers as immoral and anti-social elements. Instead, they begin to understand the conditions of their poverty and the nature of their contributions to maintaining city environments. Vitalized by this new understanding, they begin to support the struggles of waste pickers for inclusion in waste management systems.

Like Lawson and Elwood, I acknowledge that these moments of transformation, where pre-existing hegemonic discourses are broken down, are few and far in between. I do not mean to romanticize these as some harbinger of a new class consciousness that will destabilize the dominance of the middle classes in Indian society or remove negative framings of the poor. Nor am I suggesting that environmentally-engaged middle class actors will stop trying to remove informal settlements and exclude the poor from the city. Instead, I seek to show that alternate patterns of relationships can develop between the middle classes and other social groups in the city, and that by paying attention to these, we might discover interstitial spaces where the middle classes “might politicize poverty in counter-hegemonic ways” (Lawson and Elwood 2014, 210). The *pragmatic partnerships* I describe in my dissertation would have seemed implausible some time ago. However as my work shows, new alliances can develop in response to changing environmental and social conditions, and class identities and relations are constantly reworked.

What happens in the interstices and niches can have impacts on national policy. For example, in 2013 when the central government attempted to issue a new set of Municipal Solid Waste Management rules (draft MSW 2013 rules) that privileged Waste to Energy and incineration, they were met with stiff opposition from zero waste management advocacy groups and waste picker

organizations. In response to a plea from a petitioner in the waste management Public Interest Litigation that I described in Chapter 4, the Bangalore High Court ordered a stay on revisions to the MSW rules, saying that these changes would undermine all the progressive court orders issued in Bangalore. In response to this stay and after repeated lobbying efforts by organizations in Delhi, Bangalore, and elsewhere, the government has come out with a new draft of the MSW rules (draft MSW 2015), which places more emphasis on source segregation of waste, recycling, composting, and the protection/improvement of waste picker livelihoods.

Looking for interstitial spaces of possibility and brief moments of transformation is a particular pressing task at this moment in time. Indian cities are facing unprecedented ecological crises. The capital city of New Delhi was recently anointed as the most polluted capital in the world (Bagga 2015). The air quality in almost every Indian metropolis has degraded well beyond what the World Health Organization declares safe (*The Economist* 2015). Cities are constantly having to deal with garbage crisis after crisis. Water is becoming increasingly scarce. Forest-dwelling communities are being displaced to make way for large “development” projects. Cities are growing and swallowing peripheries. Just as Indian environments are degrading rapidly, the government in charge is also threatening to roll-back environmental regulations (Barry and Bagri 2014). If a new growth and corporate friendly government tries to dismantle environmental laws, then having an environmentally-engaged middle class public is all the more important to push back against these changes.

However, an environmentally-engaged middle class public is only effective if such a public also understands and takes into consideration the lives and experiences of other social groups in the city. As the new middle classes, who previously have been able to protect themselves from degrading environmental quality are less able to do so, do they find themselves in solidarity with other groups who have hitherto faced the brunt of degrading environments? In other words, how do people who are elite and affluent become aware of environmental threats that they think they have quarantined themselves from? What does this awareness do? The key to achieving the socially-just greening of Indian cities, I posit, lies in the ability of middle class and working class actors to form cross-class alliances that can jointly advocate for changed behaviors, infrastructures, and policies that emphasize not such sustainability, but also equity and justice.

## References cited

- Ablett, Jonathan, Aadarsh Baijal, Eric Beinhocker, Anupam Bose, Diana Farrell, Ulrich Gersch, Ezra Greenberg, Shishir Gupta, and Sumit Gupta. 2007. *The "Bird of Gold": The Rise of India's Consumer Market*. San Francisco: McKinsey Global Institute.
- Aldred, Rachel. 2010. "'On the Outside': Constructing Cycling Citizenship." *Social & Cultural Geography* 11 (1): 35–52. doi:10.1080/14649360903414593.
- . 2013. "Incompetent or Too Competent? Negotiating Everyday Cycling Identities in a Motor Dominated Society." *Mobilities* 8 (2): 252–71. doi:10.1080/17450101.2012.696342.
- Aldred, Rachel, and Katrina Jungnickel. 2014. "Why Culture Matters for Transport Policy: The Case of Cycling in the UK." *Journal of Transport Geography* 34 (January): 78–87. doi:10.1016/j.jtrangeo.2013.11.004.
- Anantharaman, Manisha. 2014. "Networked Ecological Citizenship, the New Middle Classes and the Provisioning of Sustainable Waste Management in Bangalore, India." *Journal of Cleaner Production*, Special Volume: Sustainable Production, Consumption and Livelihoods: Global and Regional Research Perspectives, 63 (January): 173–83. doi:10.1016/j.jclepro.2013.08.041.
- Anjaria, Jonathan Shapiro. 2009. "Guardians of the Bourgeois City: Citizenship, Public Space, and Middle-Class Activism in Mumbai." *City & Community* 8 (4): 391–406. doi:10.1111/j.1540-6040.2009.01299.x.
- Anjaria, Jonathan Shapiro, and Colin McFarlane, eds. 2011. *Urban Navigations: Politics, Space and the City in South Asia*. New Delhi: Routledge India.
- Appadurai, Arjun. 2001. "Deep Democracy: Urban Governmentality and the Horizon of Politics." *Environment and Urbanization* 13 (2): 23–43. doi:10.1177/095624780101300203.
- Arabindoo, Pushpa. 2005. "A Class Act: The Bourgeois Ordering of Public Spaces in Chennai." Edinburgh.
- Arnold, David, and Erich DeWald. 2011. "Cycles of Empowerment? The Bicycle and Everyday Technology in Colonial India and Vietnam." *Comparative Studies in Society and History* 53 (04): 971–96. doi:10.1017/S0010417511000478.
- Asian Development Bank. 2013. *Middle Class Size in the Past, Present, and Future: A Description of Trends in Asia*. Asian Development Bank. <http://www.adb.org/publications/middle-class-size-past-present-and-future-description-trends-asia>.
- Bagga, Bhuvan. 2015. "Worse than Beijing: Delhi, the World's Most Polluted Capital." *The Age*, April 7. <http://www.theage.com.au/world/worse-than-beijing-delhi-the-worlds-most-polluted-capital-20150406-1mfkc8.html>.
- Barendregt, Bart, and Rivke Jaffe, eds. 2014. *Green Consumption: The Global Rise of Eco-Chic*. New York: Bloomsbury Academic.
- Barry, Ellen, and Neha Thirani Bagri. 2014. "Narendra Modi, Favoring Growth in India, Pares Back Environmental Rules." *The New York Times*, December 4. <http://www.nytimes.com/2014/12/05/world/indian-leader-favoring-growth-sweeps-away-environmental-rules.html>.

- Baviskar, Amita. 2003. "Between Violence and Desire: Space, Power, and Identity in the Making of Metropolitan Delhi." *International Social Science Journal* 55 (175): 89–98. doi:10.1111/1468-2451.5501009.
- . 2005. "Red in Tooth and Claw? Looking for Class in Struggles over Nature." In *Social Movements in India: Poverty, Power and Politics*, edited by Raka Ray and Mary Fainsod Katzenstein, 161–78. Lanham, MD: Rowman and Littlefield.
- . 2011. "Cows, Cars and Cycle-Rickshaws: Bourgeois Environmentalism and the Battle for Delhi's Streets." In *Elite and Everyman: The Cultural Politics of the Indian Middle Classes*, edited by Amita Baviskar and Raka Ray, 391–418 New Delhi: Routledge.
- Baviskar, Amita, and Raka Ray. 2011. "Introduction." In *Elite and Everyman: The Cultural Politics of the Indian Middle Classes*, 1 edition, 1–23. New Delhi: Routledge India.
- BBC News. 2012. "Bangalore Stinks as Garbage Piles up in Indian City." *BBC News*. August 29. <http://www.bbc.com/news/world-asia-india-19407115>.
- . 2013. "Bangalore: India's IT Hub Readies for the Digital Future." *BBC News*. <http://www.bbc.com/news/technology-23931499>.
- Beall, Jo. 1997. "Thoughts on Poverty from a South Asian Rubbish Dump: Gender, Inequality and Household Waste." *IDS Bulletin* 28: 73–90.
- Benjamin, Solomon. 2000. "Governance, Economic Settings and Poverty in Bangalore." *Environment and Urbanization* 12 (1): 35–56. doi: 10.1177/095624780001200104.
- . 2007. "Lifestyling India's Metros: The Elite's Civic Reform." *Ensuring Public Accountability through Community Action*, 179–208.
- Bera, Sayantan. 2013. "Is Cycling a Crime?" *Down To Earth*, July 31. <http://www.downtoearth.org.in/content/cycling-crime>.
- Beteille, Andre. 2001. "The Social Character of the Indian Middle Class." *Middle Class Values in India and Western Europe*, Konrad Adenauer Foundation, Social Science Press, New Delhi.
- Bhan, Gautam. 2009. "'This Is No Longer the City I Once Knew'. Evictions, the Urban Poor and the Right to the City in Millennial Delhi." *Environment and Urbanization* 21 (1): 127–42. doi:10.1177/0956247809103009.
- Birdsall, Nancy, and Christian Meyer. 2012. *New Estimates of India's Middle Class*. Center for Global Development. [http://www.cgdev.org/doc/2013\\_MiddleClassIndia\\_TechnicalNote\\_CGDNote.pdf](http://www.cgdev.org/doc/2013_MiddleClassIndia_TechnicalNote_CGDNote.pdf).
- Bourdieu, Pierre. 1984. *Distinction: A Social Critique of the Judgement of Taste*. Cambridge, Mass.: Harvard University Press.
- . 2002. "The Forms of Capital." In *Readings in Economic Sociology*, edited by Nicole Woolsey Biggart, 280–91. Blackwell Publishers Ltd. <http://onlinelibrary.wiley.com/doi/10.1002/9780470755679.ch15/summary>.
- Carfagna, Lindsey B., Emilie A. Dubois, Connor Fitzmaurice, Monique Y. Ouimette, Juliet B. Schor, Margaret Willis, and Thomas Laidley. 2014. "An Emerging Eco-Habitus: The Reconfiguration of High Cultural Capital Practices among Ethical Consumers." *Journal of Consumer Culture* 14 (2): 158–78. doi:10.1177/1469540514526227.
- Castells, Manuel. 2000. "The Global Economy." In *The Global Transformations Reader*, 259–73. Cambridge: Polity Press.
- Central Pollution Control Board. 2012. *Status Report on Municipal Solid Waste Management*.

- Chakrabarty, Dipesh. 1991. "Open Space/public Place: Garbage, Modernity and India." *South Asia: Journal of South Asian Studies* 14 (1): 15–31. doi:10.1080/00856409108723146.
- . 1992. "Of Garbage, Modernity and the Citizen's Gaze." *Economic and Political Weekly*, 541–47.
- Chakravarty, Shoibal, and M.V. Ramana. 2012. "The Hiding behind the Poor Debate: A Synthetic Overview." In *Handbook of Climate Change and India: Development, Politics and Governance*, edited by Navroz K. Dubash, 218–27. New Delhi: Oxford University Press.
- Chatterjee, Partha. 2006. *The Politics of the Governed: Reflections on Popular Politics in Most of the World*. Leonard Hastings Schoff Lectures edition. New York; Chichester: Columbia University Press.
- Chaturvedi, Bharati, and Vinay Gidwani. 2011. "The Right to Waste: Informal Sector Recyclers and Struggles for Social Justice in Post-Reform Urban India." *India's New Economic Policy: A Critical Analysis*, 125–53.
- Chintan. 2009. *Cooling Agents: An Analysis of Greenhouse Gas Mitigation by the Informal Recycling Sector in India*. Chintan Environmental Research and Action Group. [http://www.chintan-india.org/documents/research\\_and\\_reports/chintan\\_report\\_cooling\\_agents.pdf](http://www.chintan-india.org/documents/research_and_reports/chintan_report_cooling_agents.pdf).
- . 2012. *Give Back Our Waste: What the Okhla Waste-to-Energy Plant Has Done to Local Wastepickers*. Chintan Environmental Research and Action Group. [http://www.chintan-india.org/documents/research\\_and\\_reports/chintan-report-give-back-our-waste.pdf](http://www.chintan-india.org/documents/research_and_reports/chintan-report-give-back-our-waste.pdf).
- Coelho, Karen, Lalitha Kamath, and M. Vijaybaskar. 2011. "Infrastructures of Consent: Interrogating Citizen Participation Mandates in Indian Urban Governance." *IDS Working Papers* 2011 (362): 01–33. doi:10.1111/j.2040-0209.2011.00362\_2.x.
- Coelho, Karen, and T. Venkat. 2009. "The Politics of Civil Society: Neighbourhood Associationism in Chennai." *Economic and Political Weekly* 44 (26/27): 358–67.
- Deccan Herald. 2013. "Mandur Villagers Set Garbage on Fire." *Deccan Herald*, February 1. <http://www.deccanherald.com/content/309314/mandur-villagers-set-garbage-fire.html>.
- Dobson, Andrew. 2003. *Citizenship and the Environment*. Oxford: Oxford University Press.
- . 2006. "Ecological Citizenship: A Defence." *Environmental Politics* 15 (03): 447–51. doi:10.1080/09644010600627766.
- Ellis, Rowan. 2012. "'A World Class City of Your Own!': Civic Governmentality in Chennai, India." *Antipode* 44 (4): 1143–60. doi:10.1111/j.1467-8330.2011.00958.x.
- Environment Support Group. 2010. *Bangalore's Toxic Legacy: Investigating Mavallipura's Illegal Landfills*. <http://www.esgindia.org/campaigns/mavallipura/press/bangalores-toxic-legacy-investigating-ma.html-0>.
- . 2012. *2 More Die, yet No One Cares for Mavallipura's People Affected by Bangalore's Waste*. Press Release.
- Fernandes, Leela. 2000a. "Nationalizing 'the Global': Media Images, Cultural Politics and the Middle Class in India." *Media, Culture & Society* 22 (5): 611–28. doi:10.1177/016344300022005005.
- . 2000b. "Restructuring the New Middle Class in Liberalizing India." *Comparative Studies of South Asia, Africa and the Middle East* 20 (1-2): 88–112.

- . 2009. “The Political Economy of Lifestyle: Consumption, India’s New Middle Class and State-Led Development.” In *The New Middle Classes*, edited by Lars Meier and Hellmuth Lange, 219–36. Springer Netherlands.  
[http://link.springer.com/chapter/10.1007/978-1-4020-9938-0\\_12](http://link.springer.com/chapter/10.1007/978-1-4020-9938-0_12).
- Fernandes, Leela, and Patrick Heller. 2006. “Hegemonic Aspirations.” *Critical Asian Studies* 38 (4): 495–522. doi:10.1080/14672710601073028.
- Ghertner, Asher. 2010. “Rule by Aesthetics: World-Class City Making in Delhi.” PhD Dissertation in the Energy and Resources Group, University of California, Berkeley.
- . 2011a. “Rule by Aesthetics: World-Class City Making in Delhi.” In *Worlding Cities*, edited by Ananya Roy and Aihwa Ong, 279–306. Wiley-Blackwell.  
<http://onlinelibrary.wiley.com/doi/10.1002/9781444346800.ch11/summary>.
- . 2011b. “Gentrifying the State, Gentrifying Participation: Elite Governance Programs in Delhi.” *International Journal of Urban and Regional Research* 35 (3): 504–32.  
doi:10.1111/j.1468-2427.2011.01043.x.
- . 2012. “Nuisance Talk and the Propriety of Property: Middle Class Discourses of a Slum-Free Delhi.” *Antipode* 44 (4): 1161–87. doi:10.1111/j.1467-8330.2011.00956.x.
- Ghosh, Asha. 2005. “Public-Private or a Private Public? Promised Partnership of the Bangalore Agenda Task Force.” *Economic and Political Weekly*.  
<http://www.epw.org.in/showArticles.php?root=2005&leaf=11&filename=9367&filetype=html>.
- Gidwani, Vinay. 2013a. “Value Struggles: Waste Work and Urban Ecology.” In *Ecologies of Urbanism in India: Metropolitan Civility and Sustainability*, edited by K. Sivaramakrishnan and Anne Rademacher, 169–200.
- . 2013b. “Six Theses on Waste, Value, and Commons.” *Social & Cultural Geography* 14 (7): 773–83. doi:10.1080/14649365.2013.800222.
- Gidwani, Vinay, and Bharati Chaturvedi. 2013. “Poverty as Geography: Motility, Stoppage and Circuits of Waste in Delhi.” In *Urban Navigations: Politics, Space and the City in South Asia*, edited by Jonathan Shapiro Anjaria and Colin McFarlane, 50–78. Routledge India.
- Gidwani, Vinay, and Rajyashree N. Reddy. 2011. “The Afterlives of ‘Waste’: Notes from India for a Minor History of Capitalist Surplus.” *Antipode* 43 (5): 1625–58.  
doi:10.1111/j.1467-8330.2011.00902.x.
- Goldman, Michael. 2011. “Speculative Urbanism and the Making of the Next World City.” *International Journal of Urban and Regional Research* 35 (3): 555–81.  
doi:10.1111/j.1468-2427.2010.01001.x.
- Greenberg, Miriam. 2013. “What on Earth Is Sustainable?: Toward Critical Sustainability Studies.” *Boom: A Journal of California* 3 (4): 54–66. doi:10.1525/boom.2013.3.4.54.
- Griskevicius, Vladas, Joshua M. Tybur, and Bram Van den Bergh. 2010. “Going Green to Be Seen: Status, Reputation, and Conspicuous Conservation.” *Journal of Personality and Social Psychology* 98 (3): 392. doi:10.1037/a0017346.
- Gupta, Siddharth. 2013. “No Country for Cyclists.” *OPEN Magazine*, July 13.  
<http://www.openthemagazine.com/article/nation/no-country-for-cyclists>.
- Halkier, Bente, Tally Katz-Gerro, and Lydia Martens. 2011. “Applying Practice Theory to the Study of Consumption: Theoretical and Methodological Considerations.” *Journal of Consumer Culture* 11 (1): 3–13. doi:10.1177/1469540510391765.



- Hargreaves, Tom. 2011. "Practice-Ing Behaviour Change: Applying Social Practice Theory to pro-Environmental Behaviour Change." *Journal of Consumer Culture* 11 (1): 79–99. doi:10.1177/1469540510390500.
- Harris, Gardiner. 2012. "India's Plague, Trash, Drowns Bangalore, Its Garden City." *The New York Times*, October 26. <http://www.nytimes.com/2012/10/27/world/asia/indias-plague-trash-drowns-bangalore-its-garden-city.html>.
- Harriss, John. 2006. "Middle-Class Activism and the Politics of the Informal Working Class." *Critical Asian Studies* 38 (4): 445–65. doi:10.1080/14672710601073002.
- Hayward, Tim. 2006a. "Ecological Citizenship: A Rejoinder." *Environmental Politics* 15 (3): 452–53. doi:10.1080/09644010600627782.
- . 2006b. "Ecological Citizenship: Justice, Rights and the Virtue of Resourcefulness." *Environmental Politics* 15 (3): 435–46. doi:10.1080/09644010600627741.
- Henderson, Jason. 2013. *Street Fight: The Struggle over Urban Mobility in San Francisco*. Amherst: University of Massachusetts Press.
- Jackson, T. 2008. *Motivating Sustainable Consumption: A Review of Evidence on Consumer Behaviour and Behavioural Change*. Policy Studies Institute: London.
- Jaffrelot, Christophe, and Peter van der Veer. 2008. *Patterns of Middle Class Consumption in India and China*. New Delhi: SAGE Publications.
- Joseph, May. 2013. "Where Have All the Cyclists Gone? The Case of 1970s Bangalore." *South Asian Popular Culture* 11 (3): 325–30. doi:10.1080/14746689.2013.820477.
- Kamath, Lalitha, and M. Vijayabaskar. 2014. "Middle-Class and Slum-Based Collective Action in Bangalore Contestations and Convergences in a Time of Market Reforms." *Journal of South Asian Development* 9 (2): 147–71. doi:10.1177/0973174114536098.
- Kapur, Akash. 2010. "Drowning in a Sea of Garbage." *The New York Times*, April 22. <http://www.nytimes.com/2010/04/23/world/asia/23iht-letter.html>.
- Kapur, Devesh, and Milan Vaishnav. 2014. "Being Middle Class in India." *The Hindu*, December 9. <http://www.thehindu.com/opinion/op-ed/being-middle-class-in-india/article6673580.ece>.
- Kaviraj, Sudipta. 1998. "Filth and the Public Sphere: Concepts and Practices about Space in Calcutta." *Public Culture* 10: 83–113. doi:10.1215/08992363-10-1-83.
- Kennedy, Emily H. 2011. "Rethinking Ecological Citizenship: The Role of Neighbourhood Networks in Cultural Change." *Environmental Politics* 20 (6): 843–60. doi:10.1080/09644016.2011.617169.
- Khan, Kabir. 2015. "1071 Wastepickers Enrolled in Rashtriya Swasthya Beema Yojna." *Stories of Waste and Waste Workers - Live Blog of Hasiru Dala*. May 6. <http://wastenarratives.com/2015/05/06/1071-wastepickers-enrolled-in-rashtriya-swasthya-beema-yojna/>.
- Kozinets, Robert V. 2010. *Netnography: Doing Ethnographic Research Online*. London: Sage Publications.
- KSPCB. 2012. "Non-Compliance to the Conditions Stipulated and Directions Issued as per Environmental (Protection) Act 1986 and MSW 2000 Rules."
- Lakshmi, Rama. 2011. "Indian Waste Workers Fear Loss of Income from Trash-to-Electricity Projects." *The Washington Post*, November 18.

- [http://www.washingtonpost.com/national/health-science/indian-waste-workers-fear-loss-of-income-from-trash-to-electricity-projects/2011/11/18/gIQACCB7fN\\_story.html](http://www.washingtonpost.com/national/health-science/indian-waste-workers-fear-loss-of-income-from-trash-to-electricity-projects/2011/11/18/gIQACCB7fN_story.html).
- Lange, Hellmuth, and Lars Meier. 2009. *The New Middle Classes: Globalizing Lifestyles, Consumerism and Environmental Concern*. Springer.
- Latta, P. Alex. 2007. "Locating Democratic Politics in Ecological Citizenship." *Environmental Politics* 16 (3): 377–93. doi:10.1080/09644010701251631.
- Lawson, Victoria, and Sarah Elwood. 2014. "Encountering Poverty: Space, Class, and Poverty Politics." *Antipode* 46 (1): 209–28. doi:10.1111/anti.12030.
- MacBride, Samantha. 2011. *Recycling Reconsidered: The Present Failure and Future Promise of Environmental Action in the United States*. MIT Press.
- Machin, Amanda. 2012. "Decisions, Disagreement and Responsibility: Towards an Agonistic Green Citizenship." *Environmental Politics* 21 (6): 847–63. doi:10.1080/09644016.2012.712791.
- Maniates, Michael F. 2001. "Individualization: Plant a Tree, Buy a Bike, Save the World?" *Global Environmental Politics* 1 (3): 31–52. doi:10.1162/152638001316881395.
- Mathur, Nita. 2010. "Shopping Malls, Credit Cards and Global Brands: Consumer Culture and Lifestyle among India's New Middle Class." *South Asia Research* 30: 211. doi:10.1177/026272801003000301.
- Mawdsley, Emma. 2004. "India's Middle Classes and the Environment." *Development and Change* 35 (1): 79–103. doi:10.1111/j.1467-7660.2004.00343.x.
- . 2009. "'Environmentalism' in the Neoliberal City: Attitudes, Governance and Social Justice." In *The New Middle Classes: Globalizing Lifestyles, Consumerism and Environmental Concern*, edited by Hellmuth Lange and Lars Meier, 237–51. Springer.
- Michaelis, L. 2003. "Sustainable Consumption and Greenhouse Gas Mitigation." *Climate Policy* 3: 135–46. doi:10.1016/j.clipol.2003.10.012.
- Ministry of Urban Development GoI. 2008. *Study on Traffic and Transportation Policies and Strategies in Urban Areas in India*.
- Myers, Norman, and Jennifer Kent. 2003. "New Consumers: The Influence of Affluence on the Environment." *Proceedings of the National Academy of Sciences of the United States of America* 100 (8): 4963–68. doi: 10.1073/pnas.0438061100.
- . 2004. *The New Consumers: The Influence of Affluence on The Environment*. Washington, D.C.: Island Press.
- Nair, Janaki. 2005. *The Promise of the Metropolis: Bangalore's Twentieth Century*. Oxford University Press.
- . 2013. "Is There an 'Indian' Urbanism?." In *Ecologies of Urbanism in India: Metropolitan Civility and Sustainability*, edited by Anne Rademacher and K. Sivaramakrishnan, 43–70. Hong Kong University Press.
- Narain, Sunita. 2015. "Come out and Claim the Road." *Down To Earth*. Accessed March 19. <http://www.downtoearth.org.in/content/come-out-and-claim-road>.
- Narayanareddy, Rajyashree. 2011. "Specters of Waste in India's 'Silicon Valley': The Underside of Bangalore's Hi-Tech Economy." University of Minnesota.
- NCAER (National Council For Applied Economic Research). 2007. *The Great Indian Market*.
- Norton, Peter D. 2011. *Fighting Traffic: The Dawn of the Motor Age in the American City*. Second Printing edition. Cambridge, Mass.: The MIT Press.

- OECD. 2007. "Municipal Waste Generation - Outlook from OECD." Indicator Assessment. <http://www.eea.europa.eu/data-and-maps/indicators/municipal-waste-generation-outlook-from-oecd/municipal-waste-generation-outlook-from>.
- Pani, Narendar, Sindhu Radhakrishna, and Kishor G. Bhat, eds. 2010. *Bengaluru, Bangalore, Bengaluru: Imaginations and Their Times*. Los Angeles: SAGE Publications
- Parikh, Jyoti, Manoj Panda, A. Ganesh-Kumar, and Vinay Singh. 2009. "CO2 Emissions Structure of Indian Economy." *Energy* 34 (8): 1024–31. doi:doi:10.1016/j.energy.2009.02.014.
- Princen, Thomas, Michael Maniates, and Ken Conca, eds. 2002. *Confronting Consumption*. Cambridge, Mass.: MIT Press.
- Pucher, John, Ralph Buehler, and Mark Seinen. 2011. "Bicycling Renaissance in North America? An Update and Re-Appraisal of Cycling Trends and Policies." *Transportation Research Part A: Policy and Practice* 45 (6): 451–75. doi:10.1016/j.tra.2011.03.001.
- Rademacher, Anne M., and K. Sivaramakrishnan, eds. 2013. *Ecologies of Urbanism in India: Metropolitan Civility and Sustainability*. Hong Kong University Press.
- Rahul, T. M., and Ashish Verma. 2013. "Economic Impact of Non-Motorized Transportation in Indian Cities." *Research in Transportation Economics*, Economics of Sustainable Transport in India, 38 (1): 22–34. doi:10.1016/j.retrec.2012.05.005.
- Rajamani, Lavanya. 2007. "Public Interest Environmental Litigation in India: Exploring Issues of Access, Participation, Equity, Effectiveness and Sustainability." *Journal of Environmental Law* 19 (3): 293–321. doi:10.1093/jel/eqm020.
- Ramani, Chitra V. 2012. "Mavallipura Residents up Their Ante." *The Hindu*, July 18. <http://www.thehindu.com/news/cities/bangalore/article3652334.ece>.
- Ranganathan, Malini. 2014. "Paying for Pipes, Claiming Citizenship: Political Agency and Water Reforms at the Urban Periphery." *International Journal of Urban and Regional Research* 38 (2): 590–608. doi:10.1111/1468-2427.12028.
- Rao, Nitya. 2002. "Cycling into the Future: The Pudukkottai Experience." In *Balancing the Load: Women, Gender and Transport*, 151–68.
- Ravallion, Martin. 2010. "The Developing World's Bulging (but Vulnerable) Middle Class." *World Development* 38 (4): 445–54. doi:10.1016/j.worlddev.2009.11.007.
- Ray, Raka, and Seemin Qayyum. 2011. "The Middle Classes at Home." In *Elite and Everyman: The Cultural Politics of the Indian Middle Classes*, edited by Raka Ray and Amita Baviskar, 246–70. New Delhi: Routledge.
- Reckwitz, Andreas. 2002. "Toward a Theory of Social Practices A Development in Culturalist Theorizing." *European Journal of Social Theory* 5 (2): 243–63. doi:10.1177/13684310222225432.
- Revkin, Andrew. 2012. "Beyond Rio: Pursuing 'Ecological Citizenship.'" *Dot Earth Blog*. June 25. <http://dotearth.blogs.nytimes.com/2012/06/25/beyond-rio-pursuing-ecological-citizenship/>.
- Ribot, Jesse C., and Nancy Lee Peluso. 2003. "A Theory of Access\*." *Rural Sociology* 68 (2): 153–81. doi:10.1111/j.1549-0831.2003.tb00133.x.
- Röpke, Inge. 2009. "Theories of Practice — New Inspiration for Ecological Economic Studies on Consumption." *Ecological Economics* 68 (10): 2490–97. doi:10.1016/j.ecolecon.2009.05.015.

- Sachs, Noah M. 2014. "Garbage Everywhere." *The Atlantic*. June 20.  
<http://www.theatlantic.com/features/archive/2014/06/confessions-of-a-trash-tourist/373118/>.
- Sahakian, Marlyne, and Harold Wilhite. 2014. "Making Practice Theory Practicable: Towards More Sustainable Forms of Consumption." *Journal of Consumer Culture* 14 (1): 25–44.  
 doi:10.1177/1469540513505607.
- Schultz, P. Wesley. 1999. "Changing Behavior with Normative Feedback Interventions: A Field Experiment on Curbside Recycling." *Basic and Applied Social Psychology* 21 (1): 25–36.  
 doi:10.1207/s15324834basp2101\_3P.
- . 2002. "Knowledge, Information, and Household Recycling: Examining the Knowledge-Deficit Model of Behavior Change (67-82)." In *New Tools for Environmental Protection: Education, Information, and Voluntary Measures*, edited by Thomas Dietz and Paul Stern, 67–82.
- Sexton, Steven E., and Alison L. Sexton. 2014. "Conspicuous Conservation: The Prius Halo and Willingness to Pay for Environmental Bona Fides." *Journal of Environmental Economics and Management* 67 (3): 303–17. doi:10.1016/j.jeem.2013.11.004.
- Seyfang, Gill. 2005. "Shopping for Sustainability: Can Sustainable Consumption Promote Ecological Citizenship?" *Environmental Politics* 14 (2): 290–306.  
 doi:10.1080/09644010500055209.
- . 2006. "Ecological Citizenship and Sustainable Consumption: Examining Local Organic Food Networks." *Journal of Rural Studies* 22 (4): 383–95.  
 doi:10.1016/j.jrurstud.2006.01.003.
- . 2010. "Community Action for Sustainable Housing: Building a Low-Carbon Future." *Energy Policy*, Special Section: Carbon Reduction at Community Scale, 38 (12): 7624–33. doi:10.1016/j.enpol.2009.10.027.
- Shah, Dharmesh, and Mariel Viella. 2013. "A Path to Environmental Burnout." *The Hindu*, July 9. <http://www.thehindu.com/opinion/op-ed/a-path-to-environmental-burnout/article4895510.ece>.
- Shove, Elizabeth. 2003. *Comfort, Cleanliness and Convenience: The Social Organization of Normality*. Oxford, England; New York: Bloomsbury Academic.
- Shove, Elizabeth, and Mika Pantzar. 2005. "Consumers, Producers and Practices Understanding the Invention and Reinvention of Nordic Walking." *Journal of Consumer Culture* 5 (1): 43–64. doi:10.1177/1469540505049846.
- Soper, Kate. 2007. "Re-Thinking the 'Good Life' The Citizenship Dimension of Consumer Disaffection with Consumerism." *Journal of Consumer Culture* 7 (2): 205–29.  
 doi:10.1177/1469540507077681.
- Soper, Kate, and Frank Trentmann, eds. 2008. *Citizenship and Consumption*. First Edition. Basingstoke England ; New York: Palgrave Macmillan.
- Spaargaren, Gert. 2011. "Theories of Practices: Agency, Technology, and Culture: Exploring the Relevance of Practice Theories for the Governance of Sustainable Consumption Practices in the New World-Order." *Global Environmental Change, Symposium on Social Theory and the Environment in the New World (dis)Order*, 21 (3): 813–22.  
 doi:10.1016/j.gloenvcha.2011.03.010.

- Sridharan, E. 2004. "The Growth and Sectoral Composition of India's Middle Class: Its Impact on the Politics of Economic Liberalization." *India Review* 3 (4): 405–28.  
doi:10.1080/14736480490895769.
- Srivastava, Sanjav. 2013. "We Need Better Public Transport, Not Bicycle Paths." *Hindustan Times*, October 27. <http://www.hindustantimes.com/comment/columns/we-need-better-public-transport-not-bicycle-paths/article1-1141257.aspx>.
- Stehlin, John. 2014. "Regulating Inclusion: Spatial Form, Social Process, and the Normalization of Cycling Practice in the USA." *Mobilities* 9 (1): 21–41.  
doi:10.1080/17450101.2013.784527.
- Tangri, Neil. 2012. *Waste Pickers Lead the Way to Zero Waste*. Of On the Road to Zero Waste: Successes and Lessons from around the World. Global Alliance for Incinerator Alternatives. <http://no-burn.org/downloads/ZW%20Pune.pdf>.
- The Economic Times. 2015. "Can Incinerators Help Manage India's Growing Waste Management Problem?" *The Economic Times*, April 28.  
<http://economictimes.indiatimes.com//articleshow/47078637.cms>.
- The Economist*. 2013. "Four Wheels Good, Two Wheels Bad," October 5.  
<http://www.economist.com/news/asia/21587266-some-say-kolkata-should-back-pedal-its-bicycle-ban-four-wheels-good-two-wheels-bad>.
- . 2015. "Breathe Uneasy," February 7. <http://www.economist.com/news/asia/21642224-air-indians-breathe-dangerously-toxic-breathe-uneasy>.
- The Hindu. 2012a. "Cycling Cities." *The Hindu*, July 9.  
<http://www.thehindu.com/opinion/editorial/article3616915.ece#comments>.
- . 2012b. "Garbage Piling up across the City." *The Hindu*, July 9.  
<http://www.thehindu.com/news/cities/bangalore/article3619414.ece>.
- . 2012c. "Bangalore's Garbage, Language, Moral Policing — All Seen through the Litterateurs' Eyes." *The Hindu*, December 10.  
<http://www.thehindu.com/news/cities/bangalore/bangalores-garbage-language-moral-policing-all-seen-through-the-litterateurs-eyes/article4181845.ece>.
- The Worldwatch Institute. 2004. *State of the World 2004 Special Focus: The Consumer Society*. W. W. Norton & Company.
- Times of India. 2010. "India Has No Middle Class?" *The Times of India*, May 6.  
<http://timesofindia.indiatimes.com/india/India-has-no-middle-class/articleshow/5895989.cms>.
- . 2014. "Mandur Blocks Roads, 200 Trash Trucks Return." *The Times of India*, June 16.  
<http://timesofindia.indiatimes.com/city/bengaluru/Mandur-blocks-roads-200-trash-trucks-return/articleshow/36630985.cms>.
- . 2015. "Delhi's Waste-to-Energy Plants 'toxic, Costly, Inefficient.'" *The Times of India*. March 31. <http://timesofindia.indiatimes.com/home/environment/pollution/Delhis-waste-to-energy-plants-toxic-costly-inefficient/articleshow/46751552.cms>.
- Tiwari, Geetam. 2002. "Urban Transport Priorities: Meeting the Challenge of Socio-Economic Diversity in Cities, a Case Study of Delhi, India." *Cities* 19 (2): 95–103.  
doi:10.1016/S0264-2751(02)00004-5.

- Tiwari, Geetam, and Deepty Jain. 2013. *Promoting Low Carbon Transport in India: NMT Infrastructure in India: Investment, Policy and Design*.  
<http://trid.trb.org/view.aspx?id=1267790>.
- Upadhyaya, Carol. 2008. "Rewriting the Code: Software Professionals and the Reconstitution of the Indian Middle Class Identity." In *Patterns of Middle Class Consumption in India and China*, edited by C. Jaffrelot and P. van der Veer. Sage Publications.
- . 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 Hellmuth Lange and Lars Meier, 253–68. Springer.
- Upadhyaya, Carol, and A. R. Vasavi, eds. 2008. *In an Outpost of the Global Economy: Work and Workers in India's Information Technology Industry*. New Delhi: Routledge.
- Vanka, Salila P. 2014. "Public Space and Life in an Indian City: The Politics of Space in Bangalore." University of Michigan
- Vergara, Sintana E., and George Tchobanoglous. 2012. "Municipal Solid Waste and the Environment: A Global Perspective." *Annual Review of Environment and Resources* 37 (1): 277–309. doi:10.1146/annurev-environ-050511-122532.
- Vivanco, Luis A. 2013. *Reconsidering the Bicycle: An Anthropological Perspective on a New (Old) Thing*. New York; London: Routledge.
- Warde, Alan. 2005. "Consumption and Theories of Practice." *Journal of Consumer Culture* 5 (2): 131–53. doi:10.1177/1469540505053090.
- Wilhite, Harold. 2008. *Consumption and the Transformation of Everyday Life: A View from South India*. New York: Palgrave Macmillan.

## Appendix A: Afterword

It is April 2015. It has been over 2 years since I left Bangalore in April 2013, after wrapping up my dissertation fieldwork. One of my key informants, a friend and somebody whose perseverance I admire, happens to be visiting the Bay Area for a few days. I manage to connect with her and she suggests that I come down to Pleasanton to meet her. She is driving up from the South Bay. She is the founder of the waste picker cooperative in Bangalore, a lifelong labor and human rights activist with tremendous energy and foresight. She was instrumental in connecting the waste picker groups with middle class waste management advocates.

I have never been to Pleasanton. On a Tuesday afternoon, as I work to complete the conclusion to my dissertation, I take a few hours off to meet with her. I get on BART and find my way to this city with an idyllic name that conjures up images of rolling fields and sun-speckled water-Pleasanton. The scene that welcomes me as I get off the train is startlingly different. The West Dublin/Pleasanton BART station is right in the middle of the freeway. You disembark and are immediately faced with a choice: the city to your left or the one to your right? I follow the signs for Pleasanton, working my way through a multi-level parking structure and then into a shopping mall.

As I enter the shopping mall, I am transported back to my days in Bangalore: When I would roam the city to meet interviewees and attend events, taking breaks in shopping malls when I needed something to eat, or to use the bathroom, or if I just had a few hours to kill between meetings.

On a typical day in Bangalore, I would easily commute 2-3 hours, just like I was doing today to meet my field research partner. I would wander the aisles of various malls, staring at the cornucopia of consumption options present before me. The Pleasanton mall was strikingly similar to one particular mall in Bangalore where I had spent many a torrid afternoon. It even housed some of the same stores- Swarovski, Pandora, Taco Bell, McDonalds. Even the smells were similar: fried food, sweet candy, and strong perfume, all blended together in a heady scent that had assaulted my tender and often frayed nerves. The similarities were striking.

And that is of course no coincidence. Bangalore, after all, aspires to be Pleasanton, replete with freeways and shopping malls.

But this dissertation is an ode to the Bangalore that exists outside the shopping mall. To the street vendor selling fresh coconut water. To the few remaining Champak trees on Sampige road. To the benches around Sankey tank that prohibit “indecent behavior” like holding hands or kissing. To Majestic and its buses that helped me get from pillar to post on a daily basis. To *Chellama*, who cleaned the common areas of the apartment complex I lived in, and who helped me dispose of empty beer bottles surreptitiously. To that delightful city, its’ contested spaces, and its’ fluid identity that was my home.

## Appendix B: Research Methodology

In this dissertation, I employed a qualitative and ethnographic research approach relying on diverse forms of data to understand the processes by which members of Bangalore's middle classes come to practice and promote sustainable or eco-friendly behaviors. My research approach is best characterized as interpretive, where I draw on accounts of reality as seen and constructed by social actors and interpret them in relation to theory in the social sciences. While this project was initially conceptualized as a study of middle class individual and household behavior, it evolved to also consider the role of the state and the impacts of middle class organizing on other social groups in the city. The data for this project was collected through semi-structured interviews, participant observation at public events, community engagement, and a review of newspaper articles, blog-posts, websites, and publicly-available court orders and municipal documents.

In this appendix, I outline the justification for my research approach, how I selected my case studies, my activities in the field, and the procedures by which I collected my data.

### **Research approach and selection of case studies**

My research was motivated by this fundamental question: How do the middle classes of India think about and act on the environment, and to what ends? In particular, I was interested in understanding if environmental discourses affected the daily consumption and lifestyle practices of middle class Indians. Because terms such as environment, consumption etc. have contingent and context-specific meanings, I decided on an interpretive approach using case-studies to answer my research questions. In other words, I sought to identify cases where middle class individuals had adopted practices that could be clearly identified as environmental, and ask practitioners about the processes by which they came to carry out these actions. Secondly, as I was interested in the collective dimensions of these practices, I augmented my interviews with observations at public events, by participating in community activities, and monitoring websites, blogs, and social media.

### **Case identification**

My initial focus was on the cities of Bangalore and Hyderabad. I chose these two cities in South India for multiple reasons: Bangalore and Hyderabad are at the center of India's Information Technology (IT) industries, and the individuals who work in these companies are well-versed with global trends, including those related to environmental awareness. Many IT employees have travelled abroad and spent extended time in places such as California and Europe. Because I was interested in understanding how global environmental ideas and discourses circulate in Indian cities, Bangalore and Hyderabad were natural choices. The second reason was that I had previously lived and worked in the city of Bangalore and had working knowledge of the local language Kannada, and was proficient in Tamil and Hindi, the other two languages spoken in the city. Hindi is also widely spoken in Hyderabad, though the local language is Telugu. However, even though my initial project proposal covered both cities, I eventually decided to restrict my focus to



Bangalore, as I soon found it was necessary to more closely investigate and differentiate the constitution of the middle-classes in relation to environmental action. Such an investigation opens up the class dimensions of the practices I had set out to study, which necessarily takes me outside the middle-classes. I also soon realized it would be necessary to expand my investigation to actions that involved the state in relation to the individuals, networks, and communities in my study. For this reason, I decided to focus on a single city – Bangalore, in more depth.

Once I identified the city where I would carry out my study, I began to pore over newspaper articles and websites to try and identify some case studies of individuals and communities practicing ‘pro-environmental’ actions. I found my first case study quite fortuitously: While flipping through TV channels one day in India, I came across a documentary on bicycling in Bangalore that was playing on National Geographic. This documentary *Wheeling in Change* had interviewed some middle class bicyclists in Bangalore and talked about how there was a growing movement that saw commuting using bicycles as an eco-friendly alternative to car usage. I was then able to contact two of the individuals via email and they agreed to speak with me. Consequently, in the summer of 2009, I carried out preliminary fieldwork in Bangalore and Hyderabad, during which I interviewed the Corporate Sustainability head of a major multinational corporation and the two bicyclists I had contacted. I also conducted an interview with the founder of a start-up that provided home-based composting solutions.

Based on these initial conversations, I decided to focus my study on bicycling and waste management practices and communities in Bangalore. I conducted two short field-visits in 2011 (July -September 2011) and 2012 (January- February 2012), before moving to Bangalore for 8 months in August 2012. The first two visits were spent conducting interviews with middle class practitioners, while the last more extended trip consisted of interviews and participant observation.

### **Study population**

My population of interest consisted of individuals who are referred to in the scholarly literature as the new middle classes of India. As I explain in Chapter 1, new middle class is a complex construct that is defined by multiple social, economic and professional criterion. However, on the field, it was easy to identify the new middle classes by certain key defining criterion, such as profession (most individuals work in the IT, Finance, Health Care and Education sectors), housing situation (modern apartment complexes or large independent houses in neighborhoods that are self-referred to as “middle class” and ownership of consumables and appliances (TV, refrigerators, cars, DVD players etc.). Within this group, I interviewed individuals who had either adopted, planned to adopt, or previously practiced one of the following sustainable consumption practices- bicycling for commute and home waste management (through recycling and composting). I also interacted with them in public events as an observer and occasional participant.

## Data collection procedures and methods

### Interviews

Interviewees were recruited using a combination of strategies. My first strategy involved contacting community groups that had formed around bicycling and waste management practices in Bangalore. These groups usually had mailing lists or forums through which I was able to distribute a recruitment email. Another strategy I used was attending events organized by these community groups, where I distributed a flyer with the details of my project and my contact information. Finally, many interviewees were referred to me by research participants I had already recruited. This strategy was particularly important as I was looking to trace networks of practitioners and understand how communities and networks supported the adoption of these sustainable behaviors. Tracing social networks and connections became easier as my field campaign progressed and I became well-acquainted with several members of Bangalore's bicycling and waste management communities.

In addition to interviewing practitioners, I also interviewed representatives from organizations that were involved in bicycling and waste management in various ways. This included representatives from NGOs and advocacy groups, waste management service providers, and representatives of informal sector community-based organizations. These representatives were usually contacted through the email addresses listed on their websites, or I was introduced to them at public events by mutual connections.

My interviews were all with English-speaking adults (18 years and older) and were conducted mostly in English, with occasional forays into Kannada, Tamil, and Hindi. Interviews usually lasted one to three hours and sometimes I interviewed the same informant multiple times.

Interviews with middle class practitioners were conducted using a standard interview guide (Appendix B.1). In the case of waste management, the interviews were combined with site visits to see the waste management systems that had been implemented in apartment complexes and neighborhoods.

Interviews with organizational representatives were modified to include questions about the mission and functions of the organization, and questions about how they interacted with community groups.

**Table B.1 Total number, gender and case breakdown of interviews with bicycling and waste management practitioners**

Case/Practice	Male	Female	Total
Only bicycling	12	5	17
Both Bicycling and Waste Management	5	6	11
Only Waste Management	7	20	27
	24	31	55

**Table B.2 Interviews with organization representatives from non-profit charitable trusts, waste management entrepreneurs, and advocacy organizations (14 interviews)**

Name of organization	Type	Number of interviews
Citizens Voluntary Initiative for the City (CIVIC)	Non-Governmental Organization	1
Environment Support Group (ESG)	Non-Governmental Organization	2
Saahas	Non-Governmental Organization	1
Saahas Zero Waste Solutions	Waste management service provider	1
Full Circle	NGO, Waste management service provider	1
Hasirudala	Member-Based Organization (MBO) Waste management service provider	3
Waste Wise Trust	NGO, Waste management service provider	1
The Anonymous Indian Charitable Trust	NGO, convener of Solid Waste Management Roundtable	1
Daily Dump (PBK Waste Solutions Pvt. Ltd)	Waste management solution	1
Wake Up Clean Up organizing team	Organizing team for WUCU expo	2

### **Participant observation**

During my field visits, I had the opportunity to observe and participate in a number of events organized in the city pertaining to bicycling and waste management. These events were opportunities for me to observe how these practices were being framed by community members, and the strategies used to recruit new practitioners. During this time, I also developed relationships with some communities and became a participant in a number of activities. I detail these communities and my activities with them below:

1. The Solid Waste Management Roundtable (SWMRT), a citywide waste management advocacy network and public interest group: During my engagement with SWMRT, I attended many of their weekly meetings (which are open to observers), went to High Court hearings with members from the roundtable, assisted the group in preparing outreach materials and participated in some of their waste management awareness drives.

2. A neighborhood-based waste management awareness team called We Care for Malleswaram: I participated in their weekly planning meetings and accompanied the group when they conducted waste management awareness sessions in apartment complexes and neighborhood associations.
3. Hasirudala, an organization working with waste pickers in Bangalore: I worked as a volunteer with this organizations helping develop website content, writing grant applications, and developing outreach materials for the newly-formed cooperative. I worked under the founder of the organization, spending an average of one day/week in their office for 4 months, and attended monthly member meetings and other events. My relationship with the group continues to date. I actively identify myself as a supporter of waste picker and informal sector inclusion in Bangalore's emerging zero waste management infrastructures.

### **Other events attended**

1. The Wake Up Clean Up waste management expo - I served as a note-taker and rapporteur (February 2013)
2. My Clean Malleswaram community awareness event - I was a co-organizer and the emcee at the event (January 2013)
3. Town-hall meeting organized by the BBMP for RWAs and NGOs on new waste management rules (October 2012)
4. Inauguration of waste picker-operated Dry Waste Collection Center in Freedom Park (January 2013)
5. High Court hearings for the Public Interest Litigation (ongoing) on the implementation of Municipal Solid Waste Management Rules 2000. In WP no. 24739-40/2012 between Ms. Kavita Shankar and in WP no. 30450/2012 between G.R.Mohan and the State of Karnataka and others (July 2012- April 2013)
6. Inauguration of bicycle lanes in Jayanagar (November 2012)
7. Bangalore Mirror Recycling Habba (September 2012)

### **Review of media articles, public documents, and social media**

In addition to interviews and participant observation, I collected information by reviewing media articles published in relation to bicycling, waste management, and other environmental topics. I collected media articles by setting up Google news alerts for keywords like “Bangalore” “Bangalore garbage/waste” “Bangalore recycling” “Bangalore bicycling” and “Bangalore environment”. I collected and collated news articles under these topics using the Evernote web-clipper tool and tagged them. I used these media articles to corroborate and extend my observations in the field and to keep up with events after I left my field site in April 2013. I also tracked the public Facebook pages and blogs of various community organizations, and flagged posts and conversations that were particularly relevant to my study.

Finally, I analyzed official documents on waste management produced by the city municipality and the pollution control board. I also compiled a list of the court orders delivered by the Karnataka High Court in the Public Interest Litigation on waste management, and collected documents and reports produced by various non-profits and advocacy organizations. My participant based work with the SWMRT and Hasirudala also gave me access to media articles, documents, and literature that was actively being used in the regular functioning of these groups.

## **Appendix B.1 Interview Guides**

### **Questionnaire for Current/Past/Potential bicyclists and recyclers/composters\*\***

*\*\* Shorthand to refer to people to who compost food/vegetable waste.*

The interview guide is divided into four sections. Section I asks general demographic questions and will be administered to all participants. Section II asks questions on bicycling behavior, and will be posed to respondents who are either current, past or potential bicyclists. Section III asks questions on recycling and composting behavior, and will be posed to respondents who are current, past or potential recyclers and/or composters.

The order of questions presented here will not be strictly adhered to as it is a semi-structured interview. Similarly, not all questions might be addressed in one interview.

#### **SECTION I: General information**

1. Age- what is your age?
2. Gender- Male \_\_\_ Female \_\_\_
3. Rural or urban background? Which city? How long in Bangalore?
4. Education- what is the highest level of education you have obtained?
5. Employment- are you currently employed? If yes, what is your profession?
6. Household structure- how many people live in your household, and how are you related to them?
7. Do you have children? How many?
8. House size- describe your current living situation
  - a. Independent house/apartment
  - b. Owned/Rented
  - c. Family/Housemates
  - d. Number of rooms
  - e. Other
9. Please tell me if you own any of the following
  - a. Car
  - b. Motorcycle
  - c. Bicycle
  - d. Television
  - e. DVD player

- f. Refrigerator
- g. Washing machine
- h. Microwave
- i. Mobile phone
- j. Mixer-grinder
- k. Laptop
- l. PC
- m. Other

## **SECTION II: Interview guide for current/past bicyclists**

### **II. A. Bicycling patterns (private behavior)**

1. Do you bicycle regularly? If no, skip questions 2,3,4,5,6,7 and go to question 8
2. Describing the process by which you decided to begin bicycling
  - i. Probe -Where did the idea/information come from?  
Friends/family/media/school/college/workplace?
  - ii. Probe- living situation
  - iii. Probe-Infrastructure
  - iv. Probe- safety
  - v. Probe- Image/identity?
  - vi. Probe -What motivation? Health? Environment?
  - vii. Probe -Who encouraged/discouraged you? Social pressure?
  - viii. Probe -What are the steps you had to take to start bicycling? (Looking up information, buying a bike, gear, lights etc.)
  - ix. Probe - How much time and money did you invest in this?
  - x. Probe -What sources of information did you use in this process? (if they refer to online, go to question 16 and then return to question 3)
3. Why do you think people bicycle or don't bicycle?
4. How often do you use your bicycle?
  - i. In terms of number of bicycle trips vs number of trips by other modes
  - ii. In terms of frequency- daily/weekly/monthly
5. What do you use your bicycle for?
  - i. Probe-Commuting to work?
  - ii. Probe- Shopping?
  - iii. Probe- Recreation?
6. When you don't use your bicycle, what other methods of transport do you use?
7. What were your travel patterns before you started using a bicycle? How have they changed? (Skip to question 15 for current bicyclists)
8. Did you ever bicycle regularly? If yes, go to questions 2 to 7 (asked in past tense) and move on to question 9, if no, go to question 11
9. What were the reasons behind your decision to stop bicycling regularly?
  - i. Probe- lack of support from family/workplace
  - ii. Probe- lack of infrastructure

- iii. Probe- lack of information/behavior-specific skills
  - iv. Probe- safety concerns
  - v. Probe- social pressure/stigma
  - vi. Probe- changed living situation/work situation
  - vii. Probe- time constraints/inconvenience
  - viii. Probe- rain/weather
  - ix. Others?
10. What might compel you to start bicycling regularly again?
11. Have you ever contemplated taking up bicycling? If yes, move on to question 12, if no, move on to question 14
12. What do you think needs to happen for you to take up bicycling?
- i. Probe- family/workplace support
  - ii. Probe- information
  - iii. Probe- infrastructure
  - iv. Probe- safety
  - v. Probe- social pressure
  - vi. Probe- changed living/work situation
  - vii. Others?
13. Have you taken any steps to start bicycling? Describe them.
14. Describe your typical transportation patterns: What type of transport forms do you use, where do you usually go, and how often? (Work, leisure, shopping etc.)
15. Do any of your friends or family members bicycle?
16. What do you think of bicycling as a commute option?
17. Are you part of any online communities or groups that discuss bicycling?
- i. Can you describe these communities/groups?
    - 1. Probe- Facebook, google groups, meetups
    - 2. Probe- moderated?
    - 3. Probe- run by any specific organization or individual?
    - 4. Others?
  - ii. How did you find them and join them?
  - iii. How much time do you spend writing/reading material on these groups/communities?
  - iv. Do online interactions lead to offline activities? If yes, what types?

## II. B. Organizing patterns (public behavior)

18. Are you currently involved in initiatives that promote/encourage that bicycling in your neighborhood, workplace or the city? If yes move to question 19, if no move to question 25 – *When you promote cycling, what is your pitch? How does it change by audience? How has it changed over time? How do you evaluate whether environmental motivation works or not?*
19. Can you describe the things you are involved in?
- i. Is this an initiative (s) you developed/spearheaded?

- ii. Are there other people involved? If so, how many? How do you know them?
  - iii. What form of communication do you use to interact with others involved?
  - iv. What is the frequency of these activities?
  - v. How much time do you spend on them?
  - vi. What is the current state of these initiative(s)?
  - vii. What are the hurdles/challenges?
  - viii. What has worked/been successful?
  - ix. Where do you think they are heading in the future?
20. When did you begin to be active in promoting bicycling? How long have you been active?
- i. Can you describe some of the initiative (s) you've been involved in, in the past?
  - ii. How much time commitment on average did they involve? (fulltime/part time/variable across years)
  - iii. What hurdles/challenges did you face? What did not work?
  - iv. Reflecting upon them, do you think they were successful? Tell me about the things that worked
21. Describe the process by which you became involved in promoting bicycling?
- i. Probe- where did the idea come from? Friends/family/media/personal experiences/school/college/workplace?
  - ii. Probe- were you recruited into an initiative? If yes, by whom, and how?
  - iii. Probe- what motivation for joining/initiating?
  - iv. Probe- childhood experiences (environmental values taught at home or negative experiences about bicycling)
  - v. Probe- ethical motivations?
  - vi. Probe- health concerns?
  - vii. Probe- environmental concerns?
22. How has your life changed since you started being involved in these initiatives?
23. What do you think the broader implications of your involvement in these initiatives are, both personally and in general?
- i. Probe- do you see yourself as part of a larger movement?
  - ii. Probe- do you see yourself as exercising citizenship/being politically engaged?
  - iii. *Tell me your idea of the typical MC/NMC person? – Class, caste, outlooks, profession, values... do you identify with this image? If not what image do you identify with?*
24. What more would you like to do?
25. Do you know of any initiatives in your city/neighborhood that aim to promote bicycling? Describe them.
26. What more do you think needs to be done to further promote bicycling in the city?
27. Who do you think should be responsible? Do you think bicycling is scalable, or just niche?



- i. Probe- Government? What can the government do?
- ii. Probe- Employers? What can employers do?
- iii. Probe- Citizens/Activists? What can people who support bicycling do?
- iv. Probe- Industry/market? What can companies do?

## **II. C. Links with other movements/behaviors**

- 28. Do you buy organic food? (If yes, move to Section III and return to 29 after completing Section III, if no, move to question 29)
- 29. Do you recycle or compost in your home? (If yes, move to Section IV and return to 30 after completing Section IV, if no move to question 30)
- 30. Are there any other eco-friendly/social initiative (s) you are involved with?
  - i. Probe- tree planting? Biodiversity clubs?
  - ii. Probe- volunteering? Contributing to NGOs?
- 31. Can you describe them in detail?
- 32. How long have you been involved in those cause (s)?
- 33. Did they precede your involvement in bicycling initiatives, were they concurrent or did they come after?
- 34. Describe the process by which you became involved in these other initiative (s)
- 35. How do those experiences fit in with your time spent on bicycling initiatives?
  - i. Probe- common themes, competing interests
  - ii. Probe- are some of the same people involved?

## **SECTION III: Interview guide for current/past recyclers and composters**

### **III. A. Recycling/Composting patterns (private behavior)**

- 1. Do you recycle or compost waste in your home regularly? If no, skip questions 2, 3,4, and go to question 5
- 2. Describing the process by which you decided to begin recycling and/or composting?
  - i. Probe-Where did the idea/information come from?  
Friends/family/media/school/college/workplace?
  - ii. Probe-What was your motivation? Health? Environment?
  - iii. Probe- role of living situation/infrastructure
  - iv. Probe- identity/image?
  - v. Probe -Who encouraged/discouraged you? Social pressure?
  - vi. Probe -What are the steps you had to take to start recycling and/or composting? (Looking up information, buying different bins, contacting service providers etc.)
  - vii. Probe -How much time and money did you invest in this?
  - viii. Probe- Are the other members of your household also involved?
  - ix. Probe -Do you have domestic helpers? Are they involved?

- x. Probe -What sources of information did you use in this process? (if they refer to online, go to question 11 and then return to question 3)
- 3. What do you think are the main benefits and drawbacks of recycling and composting?
- 4. Can you give me an estimate of how often you recycle or compost?
  - i. Probe- In terms of percentage of total amount of waste generated
  - ii. Probe- In terms of frequency
- 5. Did you ever recycle or compost in your home? If yes, go to questions 2, 3, 4 (asked in past tense) and move on to question 6, if no, skip to question 8
- 6. What were the reasons behind your decision to stop recycling or composting in your home?
  - i. Probe- lack of support from family/workplace
  - ii. Probe- lack of infrastructure
  - iii. Probe- changed living situation
  - iv. Probe- lack of information/behavior-specific skills
  - v. Probe- social pressure/stigma
  - vi. Probe- time constraints/inconvenience
- 7. What might compel you to start recycling or composting in your home again?
- 8. Have you ever contemplated taking up recycling or composting? If yes, move on to question 9 if no, skip to question 11
- 9. What do you think needs to happen for you to take up recycling or composting?
- 10. Have you taken any steps to start recycling or composting? Describe them.
- 11. Do any of your neighbors or friends recycle/compost?
- 12. What do you think of recycling and/or composting?
- 13. Are you part of any online communities or groups that discuss recycling or composting?
  - i. Can you describe these communities/groups?
    - 1. Probe- Facebook, google groups, meetups
    - 2. Probe- moderated?
    - 3. Probe- run by any specific organization or individual?
  - ii. How did you find them and join them?
  - iii. How much time do you spend writing/reading material on these groups/communities?
  - iv. Do online interactions lead to offline activities? If yes, what types?

### **III. B. Organizing patterns (public behavior)**

- 14. Are you currently involved in initiatives that promote/encourage that recycling/composting in your neighborhood or in the city? If yes move to question 15, if no skip to question 21- *When you promote recycling/composting, what is your pitch? How does it change by audience? How has it changed over time? How do you evaluate whether environment motivation works or not?*
- 15. Can you describe the things you are involved in?
  - i. Is this an initiative (s) you developed/spearheaded?

- ii. Are there other people involved? If so, how many? How do you know them?
  - iii. What medium do you use to communicate with these people?
  - iv. What is the frequency of these activities?
  - v. How much time do you spend on them?
  - vi. What is the current state of these initiative(s)?
  - vii. What are the hurdles/challenges?
  - viii. What has worked/been successful?
  - ix. Where do you think they are heading in the future?
16. When did you begin to be active in promoting recycling and/or composting? How long have you been active?
- i. Can you describe some of the initiative (s) you've been involved in, in the past?
  - ii. How much time commitment on average did they involve? (Fulltime/part time/variable across years)
  - iii. What hurdles/challenges did you face? What did not work?
  - iv. Reflecting upon them, do you think they were successful? Tell me about the things that worked
17. Describe the process by which you became involved in promoting recycling and/or composting?
- i. Probe- where did the idea come from?  
Friends/family/media/personal experiences/school/college/workplace?
  - ii. Probe- were you recruited into an initiative? If yes, by whom, and how?
  - iii. Probe- what motivation for joining/initiating?
  - iv. Probe- childhood experiences (environmental values taught at home or negative experiences with composting/recycling)
  - v. Probe- ethical motivations?
  - vi. Probe- health concerns?
  - vii. Probe- environmental concerns?
18. How has your life changed since you started being involved in these initiatives?
19. What do you think the broader implications of your involvement in these initiatives are, both personally and in general?
- i. Probe- do you see yourself as part of a larger movement?
  - ii. Probe- do you see yourself as exercising citizenship??
  - iii. *Tell me your idea of the typical MC/NMC person? – Class, caste, outlooks, profession, values... do you identify with this image? If not what image do you identify with?*
20. What more would you like to do?
21. Do you know of any initiatives in your city/neighborhood that aim to promote recycling and/or composting? Describe them.
22. What more do you think needs to be done to further promote recycling and composting in the city?

23. Who do you think should be responsible? Do you think recycling/composting is scalable among MC?
- i. Probe- Government? What can the government do?
  - ii. Probe- Citizens/Activists? What can people who support recycling and composting do?
  - iii. Probe- Industry/market? What can industry do?

### **III. C. Links with other movements/behaviors**

24. Do you buy organic food? (If yes move to Section III, and return to 25 after completing Section III if no, move to question 25)
25. Do you bicycle? (If yes, move to Section II, and return to 26 after completing Section II if no move to question 26)
26. Are there any other eco-friendly/social initiative (s) you are involved with?
- i. Probe- tree planting? Biodiversity clubs?
  - ii. Probe- volunteering? Contributing to NGOs?
27. Can you describe them in detail?
28. How long have you been involved in these cause (s)?
29. Did they precede your involvement in recycling/waste management initiatives, were they concurrent or did they come after?
30. Describe the process by which you became involved in these other initiative (s)
31. How do those experiences fit in with your time spent on recycling and composting activities?
- i. Probe- common themes, competing interests
  - ii. Probe- are some of the same people involved?