

State, Space, and Smartness: Temporality and Politics in Pune Smart City

Thesis submitted in partial fulfilment of the requirements
for the Degree of Doctor of Philosophy

by

Arushi Sharan

Wolfson College

University of Oxford

Michaelmas Term 2025

ABSTRACT

This thesis probes the futurism of a smart city and uses that as a lens to study the state-in-practice, by examining the Smart Cities Mission (SCM), an urban development programme initiated by the Government of India in 2015. While 'smart city' as a concept typically refers to the use of digital technologies in urban governance and development, in India, it encompasses everything from digitalisation to sustainable development, to affordable housing. Importantly, notions of smart city are heavily imbued with aspirations, futurism, and visions of progress, shifting the entire conversation surrounding them—their citizens, development, and governance—to a speculative future point that will usher in greater economic growth and prosperity. The smart city is always imminent, but never reachable.

Using a case study method, I study the futurism and associated politics of the SCM in Pune in western India. Through insights generated inductively from fieldwork, in conjunction with extensive documentary analysis, I study the smart city in a grounded manner. I probe its 'smartness' and inherent futurism, using that as a lens to study the Indian state in the contemporary moment. In doing so, I draw from literature that argues that space is not just constituted geographically but co-constituted temporally.

Drawing from Pune's case, I formulate and analyse three futures of the smart city—its Present-Future, Past-Future, and Future-Future, elaborating upon how these varying futures emerge through different actors and institutions of the state-in-practice. Furthermore, I argue that through its area-based development approach, the SCM creates 'time enclaves' within the same geographic space, which are envisioned to operate in the future perpetually, promoting speculative real estate development in the city. Finally, I use the SCM as a window to observe the internal contestation within the state along temporal lines. Thus, this thesis uniquely bridges scholarship on the state-in-practice with temporalities in urban geography, by situating the state-in-practice in temporal space.

Thesis word count: 94,568

ACKNOWLEDGEMENTS

Chaos and uncertainty have been constant companions of this thesis, from its genesis to its conclusion. I began mulling over the ideas for this project amidst the COVID-19 pandemic, the lockdowns, and the grief that it brought to everyone. When I began this DPhil, the world was beginning to peek its head through the debris from destruction and start again. My journey in Oxford began through a quarantine, and was shaped by experiences of immigration, an unprecedented UK-wide cost-of-living crisis, profound humanitarian crises in Gaza and Ukraine, attacks on the intellectual freedom of academic institutions, the rise of inward-looking nationalisms globally, personal losses, and experiences of grief and transformation. Blurring boundaries between what was 'personal' and what was 'public', chaos and uncertainty permeated through it all. Paradoxically enough, this thesis became my anchor, offering me some degree of grounding and certainty. So first and foremost, I am grateful for this work, and grateful that I had the opportunity to author it.

This thesis would have never seen the light of day had I not received the support I did from people and institutions. In what follows, I attempt to express my gratitude for everyone who has played a role in my doctorate, shaping my intellectual and personal experiences. Firstly, I thank my supervisor Professor Nikita Sud, who provided me with insightful feedback from the day I shared my research proposal with her, to the day I shared a full thesis draft. Her input always helped me sharpen my ideas and has been crucial in shaping my intellectual journey through this doctoral programme. I also extend my heartfelt gratitude to the Oxford Department of International Development for generously providing me with a full scholarship and subsequent funding that enabled me to embark upon and complete this journey. I am also grateful for Wolfson College's support in many ways, from its wonderful Yoga Society to its travel grants for fieldwork and conference participation, that made my DPhil journey easier. I am also deeply thankful to all my research participants who shared their valuable time and thoughts with me and allowed me to use it for this dissertation—this work would not be possible without them.

My academic journey to pursue this doctorate was shaped by many people who encouraged me to think critically, sparking my intellectual curiosities in many different ways. Particularly, I wish to thank Professor Sunalini Kumar who taught me a course on the politics of development in India during my undergraduate days, opening my eyes for the first time to how everything from the built environment of cities to large-scale social movements are shaped by political processes. I also thank Dr Amir Ali and Dr T. G. Suresh at Jawaharlal Nehru University, Delhi for their impactful teachings during my Master's studies there. Dr Ali strengthened my grounding in political theory and encouraged me to sharpen my analytical and reasoning abilities, while Dr Suresh's classes on globalisation and development, with his quintessential warm and witty delivery, sparked my interest in understanding how macroprocesses of globalisation shape development outcomes.

The ideas for this thesis emerged through my work experience with the Chief Minister's Good Governance Associates Programme, which ignited my interest in

understanding public-private partnerships and the networking of the state. During this doctorate, my ideas were further refined through the feedback I received from peers and colleagues during presentations at various conferences, and I am sincerely grateful for that. Specifically, I wish to thank Professor Constantine V. Nakassis at the University of Chicago, whose insightful feedback on my presentation at the South Asia Graduate Students Conference in Chicago pushed me to sharpen my analysis in creative ways. I also want to mention the Radcliffe Camera library at Oxford here, for though it is just a building, it was a magical space for me that always helped find a flow in my thoughts whenever I felt stuck.

My intellectual journey was complemented and made richer by the community of support I formed at Oxford. From sharing the ups and downs of the DPhil journey over innumerable cups of tea and coffee to sharing homes and lives, I could not have completed this thesis without the warmth, love, laughter, and anchoring I found through this community. I extend my heartfelt gratitude to: Mengchen Suo, Barbara Maciejewska, Danchen Xu, Abhishek Ranjan Datta, Deepa Kurup, and Aman Yadav. I also thank Zara Ismail enormously for her consistent support throughout this DPhil. Zara became my first friend in the UK, through what now feels like a serendipitous encounter at the Central Bus Station at Heathrow, and I am incredibly grateful for her friendship and support through every step and every stage of this DPhil (quite literally), from the very first day.

I also wish to extend my gratitude to friends outside of Oxford who made this journey more meaningful, across time and distance. I thank Tanya Kak for being my co-traveller in this lifetime and for choosing to witness the journey through its ebbs and flows. I am also grateful for Eesha Kumar's friendship since our high school uniform days, bringing me joy, steady support, and comfort. I am thankful to Zehra Kazmi for her love, loyal support, and heartfelt warmth, and to Simran Pahwa, for always believing in me and cheering me on, especially in moments I could not believe in myself. I also thank Yash Narain for his encouragement, help, and for pushing me in crucial moments that I needed to be pushed.

Finally, I extend my deepest gratitude to my family for being there for me and supporting me throughout this journey. I thank my sister Shambhavi Sharan for her love and for always being on my team, and my brother-in-law Shantanu Asthana for his encouragement and generosity. Both of them continually opened their hearts and home to me, offering me a space of joy, respite, and fun. I thank my mother Amita Srivastava for being a source of strength, support, and understanding—having completed a doctorate herself, my mother could always empathise with me in ways others could not. Last, but by no measure the least, I am grateful to my father Anjani Nandan Sharan, for always believing in me and dreaming only the most ambitious dreams for me since I was a child.

CONTENTS

ABSTRACT 2
ACKNOWLEDGEMENTS 3
LIST OF TABLES 8
LIST OF FIGURES 9
GLOSSARY 13
CHAPTER 1: INTRODUCING INDIA'S SMART CITIES MISSION 17
1.1 URBANISATION, FUTURISM, AND THE SMART CITY 27
1.2 PROGRAMMATIC STRUCTURE OF THE SCM IN INDIA 38
1.3 THE SCM IN PUNE 45
1.4 THESIS ROADMAP 51
CHAPTER 2: REVIEW OF LITERATURE AND THEORETICAL FRAMEWORK 56
2.1 THE STATE-IN-PRACTICE 58
2.1.1 PLURALISATION OF GOVERNANCE AND BLURRING OF STATE BOUNDARIES 62
2.1.2 CONSULTING FIRMS AND POLICY MOBILITIES 65
2.1.3 INFORMAL NETWORKS AND THE 'ACTUALLY EXISTING STATE' IN INDIA 69
2.2 TIME, SPACE, AND SMART CITIES 71
2.3 STATE IN TEMPORAL SPACE 78
2.4 STATE RESTRUCTURING AND SMART CITIES IN INDIA 79
2.5 BUILDING BRIDGES: THIS THESIS' CONTRIBUTION 88
CHAPTER 3: RESEARCH METHODOLOGY 90
3.1 RESEARCH DESIGN 91
3.1.1 FIELDWORK TIMELINE 97
3.2 RESEARCH METHODS 98
3.2.1 RESEARCH ANALYSIS: TOOLS AND METHODS 110
3.3 METHODOLOGICAL AND ETHICAL CONSIDERATIONS 111
3.3.1 STUDYING 'STATE PRACTICES' AND 'ELITES' 112
3.3.3 RESEARCHER POSITIONALITY 113
3.3.4 CUREC AND RISK ASSESSMENT 116
3.3.5 USE OF TRANSLATORS 117
3.4 CONCLUSION 118
CHAPTER 4: THE AESTHETIC PERFORMANCE OF SMARTNESS – HOW POLITICAL RATIONALES AND

COMPETITION WITHIN THE STATE SHAPE PUNE SMART CITY 121
4.1 THE POLITICALLY DRIVEN SMART CITY 128
4.1.1 MULTI-SCALAR POLITICS OF THE SMART CITY 133
4.2 GROUNDING SMARTNESS IN SPACE 140
4.3 THE ROLE OF AESTHETICS IN A SMART CITY 150
4.3.1 SMART AESTHETICS AS A STRATEGY IN SUBVERSION 154
4.4 CONCLUSION 157
CHAPTER 5: THE 'FOURTH LION': (SMART?) CONSULTANTS IN THE STATE 159
5.1 CONSULTANTS AND THEIR STRATEGIES FOR ENTRENCHMENT IN THE STATE 164
5.2 CONSULTANTS AND THE SMART CITY VISION 169
5.2.1 SCALING AMBITIONS AND MODERNISING THE STATE 169
5.2.2 BRINGING SMARTNESS TO INDIA AND TO THE WORLD 172
5.2.3 CITIES AS STRATEGIC SITES 176
5.3 CONSULTANTS IN THE IMPLEMENTATION OF THE SCM 179
5.3.1 IN PROGRAMME DESIGN/ARCHITECTURE 179
5.3.2 CONSULTANTS IN PUNE 183
5.4 CONCLUSION 194
CHAPTER 6: SMART FUTURES: SPECULATIVE URBANISATION THROUGH THE SCM IN PUNE 197
6.1 CREATING 'TIME ENCLAVES': THE LIGHTHOUSE APPROACH OF THE SCM 203
6.2 LIGHTHOUSES: ZONES OF SPECULATION AND REAL ESTATE DEVELOPMENT 210
6.2.1 THE POLITICAL ECONOMY OF REAL ESTATE DEVELOPMENT 216
6.3 SPATIO-TEMPORAL ORDER OF RELATIONS BETWEEN OLD CITY AND SMART CITY 223
6.3.1 MATERIAL CONSEQUENCES OF SPECULATIVE DEVELOPMENT IN ABB 227
6.4 CONCLUSION 228
CHAPTER 7: FRAGMENTATION OF URBAN GOVERNANCE: TEMPORAL AND TERRITORIAL DIVISION OF PUNE 231
7.1 THE SPV, FUTURISM, AND 'DISTANT TIME' 233
7.2 TEMPORAL CONTESTATIONS AND FRAGMENTED GOVERNANCE 248
7.2.1 TRANSFERRABLE DEVELOPMENT RIGHTS AND LAND ACQUISITION IN SMART PUNE 251

7.3 CROSS-CUTTING TEMPORALITIES: THE PATCHWORK OF SMART CITY DEVELOPMENT 256
7.4 CONCLUSION 263
CHAPTER 8: CONCLUSION – THE SPLIT STATE 267
8.1. FINDINGS AND DISCUSSION 269
8.1.1 TWO STATES: THE STORY OF DISSONANCE 281
8.2 RESEARCH CONTRIBUTIONS AND FURTHER AVENUES 295
REFERENCES 300

LIST OF TABLES

Table 1

Proposal for Investment in Pune as Submitted in the Smart City Challenge, 2015……49

Table 2

The Three Conceptualised Futures of Smart City……...51

Table 3

Types of Management Consulting Firms……66

Table 4

Fieldwork Timeline…….....98

LIST OF FIGURES

Figure 1

World City Populations 1950-2035……..…. 28

Figure 2

Federal structure of government in India……..…..39

Figure 3

Agencies and institutions involved in the implementation of the Smart Cities Mission……....40

Figure 4

Map location of Pune……..46

Figure 5

Map location of Aundh, Baner, and Balewadi in Pune……...……50

Figure 6

Analysis of news reports……...111

Figure 7

Smart city clinic, Pune……...…...138

Figure 8

Post from the official handle of SCM on LinkedIn about the ‘Smart Clinic’ initiative in Pune……...139

Figure 9

Smart Cities Mission post on LinkedIn about the Smart Cities Expo……...……...141

Figure 10

Smart Pune’s (official X handle of Pune smart city) post on the Annual Smart Cities Conclave, 2023……..141

Figure 11

A list of awards received by Pune smart city……..…....142

Figure 12

Play area designed on the wide pavements of the pilot road, Aundh……....144

Figure 13

Abandoned and inoperative smart toilet for women, Aundh……...….144

Figure 14

A display of the smart elements in ICCC, Pune…….....149

Figure 15

A cover for underground electric cables with the Pune smart city logo……...…149

Figure 16

The Emblem of India……160

Figure 17

KPMG's model to increase economic investment in smart cities in India……...168

Figure 18

Advertisements put up by the Government of India in public spaces on its role in the G-20 summit held in India, 2023……...…170

Figure 19

PwC's work on smart cities across the world, as exhibited in their presentation on smart cities in India…….....174

Figure 20

Deloitte and Confederation of Indian Industries' (CII) prediction of India's digital future ……..178

Figure 21

KPMG's chronology of urbanisation in India through government programmes/policies…….183

Figure 22

Satellite imagery of Balewadi in 2012 (above; pre-SCM) and 2024 (below; post-SCM) ……...202

Figure 23

Advertisement for an upcoming commercial high-rise building in Baner……212

Figure 24

Billboard advertisement for a multi-storey residential complex in Balewadi……..213

Figure 25

An under-construction building in Balewadi……....214

Figure 26

Document snapshot detailing the composition of the SCAF……219

Figure 27

A billboard advertisement of an upcoming real estate project in Baner……...225

Figure 28

Balewadi High Street……226

Figure 29

Official Maharashtra government vehicle of the CEO of the Pune SPV……..…242

Figure 30

Poster for the 7th anniversary celebrations of the SCM……....245

Figure 31

Posts by the Mission Director, SCM on the success of the programme……...248

Figure 32

Stretch of pavement on ITI Road, Aundh (the pilot road of Pune SCM)……260

GLOSSARY

Aundh, Baner, Balewadi (ABB)	The areas chosen for area-based development under the Smart Cities Mission in the city of Pune. They lie on the north-western fringe of the city, geographically proximate to the information technology industry.
Bharatiya Janata Party (BJP)	A political party in India following a Hindu nationalist and right-wing ideology. It has been the ruling party forming the Government of India since 2014. The Smart Cities Mission was launched under its leadership.
Government of India (GoI)	India has a three-tier federal structure of governance. At the national level is the Government of India. At the regional/provincial level there are State governments and at the local level there are municipal corporations in cities and *panchayats* in villages.
Integrated Command and Control Centre (ICCC)	The data centre where all the data streams coming from smart elements such as environmental sensors, CCTV cameras, emergency call boxes, etc. are aggregated. Every smart city under the Smart Cities Mission has such a data centre.
Information and Communication Technologies (ICT)	It is a broader term for information technology (IT) referring to computing and telecommunication technologies that allow its users to access, collect, share, and process information in a digital form. This includes a vast range of technologies from laptops, mobile phones, the internet, to software of various kinds, wireless devices, media technologies and applications, and more recent technologies such as artificial intelligence and internet of things.

Ministry of Housing and Urban Affairs (MoHUA)	The apex and nodal ministry in the Government of India overseeing the administration of issues of urban development, urban governance, and housing. It was formed in 2017 after the merger of two erstwhile ministries—Ministry of Urban Development (MoUD) and Ministry of Housing and Poverty Alleviation.
Public-Private Partnerships (PPPs)	PPPs refer to arrangements between a government agency (or the public sector) and a company (or the private sector) to collaborate on building, financing, operating or maintaining a service or project that the public sector traditionally provides. Typically, the government agency provides land or regulatory support while the private sector gives technical support or provides capital investments. PPPs are usually governed by contracts which dictate the terms of collaboration and the risks, rewards, and responsibilities of each party.
Pune Municipal Corporation (PMC)	The local state body responsible for the discharge of administrative functions and governance in the city of Pune.
Pune Smart City Development Corporation Limited (PSCDCL)	The body responsible for managing and implementing smart city projects in Pune. It is neither a constitutional nor a statutory body. Rather, it is a Special Purpose Vehicle in the form of a company, with the State government of Maharashtra and PMC as its shareholders and promoters.

Smart City Advisory Forum (SCAF)	It is an advisory body to the Special Purpose Vehicle (SPV) that is to be set up in every selected smart city as per the SCM Mission guidelines. The purpose of this forum is to facilitate collaboration amongst various stakeholders and advise the SPV accordingly on smart city projects. It is to be comprised of bureaucrats, people's representatives in legislative bodies, the mayor of the municipal corporation, CEO of the SPV, local youths, technical experts and citizens' representatives.
Smart Cities Mission (SCM)	An urban development programme launched by the Government of Indian in 2015 to create 100 'smart' cities in the country.
Smart City Proposal (SCP)	A proposal containing the smart city vision, including the list and kind of smart city projects to be implemented and budgetary outlays. Municipal corporations create these proposals in collaboration with consulting firms for their cities.
Special Purpose Vehicle (SPV)	The implementing body for smart city projects in every city selected in the SCM. It is a company with the State government and municipal corporation as its shareholders and promoters. It receives funding from all three tiers of federal government in India to form a corpus of capital dedicated solely for smart city projects.

State (with a capital 'S')	India is a federal union of sub-national entities, namely 28 States and 8 Union Territories. Each State is a distinct, self-governing administrative unit with its own government. The State government shares powers with the national/Union government in managing the affairs of the State. The Union Territories are directly governed by the Government of India.
Urban Local Bodies (ULB)	The bodies responsible for local governance of urban areas in India. They form the third tier of the federal governance architecture in India. Depending on the size and population of the area being governed, the nomenclature of these bodies varies. But broadly, municipalities, municipal corporations, town area committees, and notified area committees—all fall under the umbrella of ULBs. See figure 2 in Chapter 1 for more.

CHAPTER 1: INTRODUCING INDIA'S SMART CITIES MISSION

In 2008, when the world was going through a global economic recession, a multi-national technology firm, IBM, announced a programme for 'smarter cities' worth 100 million USD. Through the 1990s, and early 2000s, the company had faced substantial losses and thus, senior cadres of personnel at the firm had identified cities as "huge untapped markets" for potential revenue generation by the 2000s (Townsend, 2013, p. 64). In November 2008, IBM's then CEO Samuel Palmisano announced a programme for creating a 'Smarter Planet' of which, creating 'Smarter Cities' was a key component. Initially, IBM contracted with two individual city governments, namely the Singapore city government and Rio de Janeiro's city government in Brazil, as its flagship cities. Soon after, they launched a 'Smarter Cities Challenge' wherein 100 cities were selected from all over the world and provided with 'pro bono' consultancy to make them 'smarter' through the expertise of IBM. This was done with the hopes of yielding returns in the form of actual contracts for IBM's products by proposing to make governance processes and infrastructure such as lighting poles and water meters 'smarter' i.e., digitalised. For instance, one of the company's prescriptions was that the digital data collected through the 'smart' elements it provides (such as water meters or environmental sensors) would be aggregated at one place called the 'Intelligence Operations Centre' which would become a 'nerve centre' for the entire city. Notably, by 2011, IBM had even trademarked the phrase 'smarter cities' (Söderström, Paasche & Klauser, 2014).

While IBM packaged the use of digital technologies in a certain way and sold it to city governments under the 'smart city' branding, urban development and governance landscapes had already started reconfiguring prior to that with the proliferation of telecommunication and telematics technologies from the 1960s and 70s in parts of the world, particularly in advanced capitalist nations (Graham & Marvin, 1996). These

technologies reconfigured spatial relations through the facilitation of transmission of information and communication across distances, especially in real-time. Moreover, the connectivity enabled through digital networks transformed cities into 'informational cities' wherein these cities became nodes in wider, global information networks, reshaping global economies and also became centres of data, innovation, and control (Castells, 1989). Early usages of electronics and digital technologies in urban planning were imbued with a 'systems-thinking' approach, wherein the use of these technologies and digital data were thought to promote a scientific management of the city. For instance, in the 1970s, Japan's national Ministry of Construction developed an 'Intelligent City' programme to encourage the uptake of optical fibre systems and advanced urban management networks based on both local and wide-area networks (LAN and WAN) in cities. Apart from the perception that digitally mediated networks can lead to the efficient collection and processing of data and consequent rational decision-making, such 'Intelligent City' or 'Wired City' programmes had a proclivity for techno-solutionism—policymakers had a penchant for hyping up the potential of 'technical fixes' to their cities' problems (Graham & Marvin, 1996, p. 342-347).

The 'smart city' discourse holds continuities with these previous conceptualisations in the form of the 'informational city', 'intelligent city', 'wired city', among others. Each of these terms in different ways highlight the growing and significant impact of ICTs on cities, their management, and development (Hollands, 2008; Vanolo, 2014). Early usages of the term 'smart city' were self-referential—individual city governments used the term in the 1990s, such as the city governments of Cyberjaya in Malaysia or Adelaide in Australia (Söderström, Paasche & Klauser, 2014). But the proliferation of 'smart city' as a sociotechnical imaginary beyond advanced capitalist

nations emerged only in the 2000s, with an element distinctive from previous iterations—an emphasis on "business-led urban development" (Hollands, 2008, p. 308).

In this imaginary, the challenges of a rapidly-urbanising world can be solved through a techno-utopia, wherein the scientific and rational deployment of the 'right' technological interventions resolves problems and crises, facilitating the ease of doing business and paving the way for a prosperous urban future (Hollands, 2008; Sadowski & Bender, 2019; White, 2016). IBM has been the main driver of this contemporary push towards smart cities, and later, other IT companies such as Cisco and Siemens followed suit to push their product (Greenfield, 2013; Townsend, 2013; Söderström et al., 2014). Today, the smart city market is valued anywhere between 0.7 to 1.7 trillion USD globally, depending on whether the components of the estimate include hardware sales associated with the digital technologies, apart from software and consultancy services.[1] Hereon in this thesis, while I use the terms 'smart city' and 'smartness' throughout, I am not using them in the prevalent sense, as referring to the efficiency brought through digital technologies and the expertise associated with it. Instead, I use them in a dual sense: both as referring to specific ideas and programme(s) of action, but also relatedly, as hollow signifiers of anything and everything that smart(ness) promises.

Importantly, notions of the smart city in India are imbued with all kinds of aspirations, futurism, and ideas of progress. A significant consequence of this is that the temporal dimension of 'smart cities', as cities of the future, shifts the entire conversation surrounding them—their citizens, development, and governance to a speculative future point that will usher in greater economic growth and material prosperity. Therefore, any

[1] The range has been estimated on the basis of market research reports produced by *Claight Corporation* (report available at: https://www.expertmarketresearch.com/reports/smart-cities-market, accessed 10/06/25) and *MarketsandMarkets* (report available at: https://www.marketsandmarkets.com/Market-Reports/smart-cities-market-542.html, accessed 10/06/25).

critique that is grounded in the present is circumvented. In this thesis, I interrogate this notion of temporality that is encoded in the socio-technical imaginary of the smart city in India, specifically its futurism. I do so by studying a government programme called the Smart Cities Mission (SCM), particularly its working in the city of Pune in western India. My work draws from but is distinct from scholarship that investigates the spatial reconfiguration of urban landscapes, their impact, and the management of cities through the facilitation of communication and information in real-time by ICTs in smart cities, as I use the wider government programme—that of the SCM—as a lens to also understand the ongoing transformations in the Indian state. In section 1.1, I detail why I investigate the futurism of the smart city, as encoded in the SCM, while situating it alongside other smart city programmes globally.

The SCM is a nation-wide urban development programme that was initiated in 2015, with a goal of creating 100 expertise-driven smart cities in the country. The aspiration was that these cities would accelerate economic growth, strengthening Indian cities and the nation's economic and political power in the international sphere (MoUD, 2015; Pune Municipal Corporation, 2015a; 2015b). While the futurism of smart cities, globally, revolves around the construction of depoliticised techno-utopias, in India, the creation of these 100 smart cities is closely tied to postcolonial aspirations of overcoming historic underdevelopment (Datta, 2019).

This state-directed futurism encoded in the SCM's idea of smart cities operates on a linear notion of time, wherein progress occurs along a unidirectional straight path, moving from a past state of underdevelopment to a prosperous, developed one. However, the vision of a smart city that is pursued in the SCM is nebulous—an abstracted, ahistoric, all-encompassing vision of city development that is perpetually set in the future—always imminent, but never reachable. The SCM was initially envisioned for a period of five

years till 2020, but even at the time of writing this thesis, most of the smart cities in India remain on paper, with projects scaled back significantly from what was planned, and with programme deadlines being extended each year to complete unfinished projects (Andrade, 2019; Chatterjee, 2024; Chitlangia, 2023; Krishnan, 2023).

Moreover, the genesis of this programme lies in the urban entrepreneurialism of states, in which they act as active facilitators of capitalist development, seeking to brand and transform cities and urban governance to attract capital (Banerjee-Guha, 2009; Brenner, 2004; Gooptu, 2015; Harvey, 1989). This is evident most crucially in the deployment of a Special Purpose Vehicle (SPV) to formulate and implement SCM projects in the selected smart cities, instead of the local municipal corporation. In a later section of this chapter, I elaborate upon this more when discussing the structure of programme implementation of the SCM. However, it is crucial to note here that unlike previous such entrepreneurial city or private city programmes, the smart city is one that has been actively promoted and advertised by the state on a national scale (Datta, 2017). The SPV, which has been especially created for the formulation and implementation of smart city projects, operates like a company, and is effectively another agency involved in city governance.

Previously, cities in India have experimented with deploying agencies other than the municipal corporation in the urban governance landscape at the local or regional level, to promote world city-making agendas and for the city's development. For instance, Neha Sami (2013), documents the workings of Bangalore Action Task Force and its successor organisation, the Agenda for Bengaluru Infrastructure Development—two agencies created by the regional government of Karnataka for the planning and development of the city of Bengaluru. These agencies were created as public-private partnerships (PPPs) between the government, civil society groups, and influential corporates in the city. In

their operation, both agencies attracted heavy criticism for being elite-centric—in their composition which comprised of the IT industry's leaders in the city, in their vision for Bengaluru's development which was distinctly middle-class oriented, and in their (non)engagement with the city's population. Sami (2013) argues that these taskforces are reflective of a trend towards making governance networks more flexible—a direct consequence of the liberalisation of the economy and decentralisation of political power in India, which I will elaborate on more in a later part of this chapter as well as the next one.

The deployment of the SPV to create smart cities certainly holds continuities with this larger history of experimentation in city governance. The vision for creating smart cities in India is closely intertwined with the vision for creating 'world class cities', and the SPVs have been deployed to attract greater private participation in the city's governance and development. In many ways, the SCM magnifies this trend, however, with crucial distinctions. One, the SCM is a national programme and effectively introduces the ideas that underlie the taskforces that Sami (2013) writes about, across the country. Two, and importantly, the programme seeks to create not just globally competitive cities, but cities of the future through the smart city agenda. Thus, investigating this futurism becomes crucial to understanding new forms of urban governance in India. Moreover, the SCM, while initiated by the national government, also relies upon the sub-national and local governments, especially when it comes to the SPV's financing. Thus, studying the SCM offers us a unique window to understand the ongoing workings of the state in India.

Before proceeding further, I clarify some important terminologies used in this thesis. Firstly, I utilise a conception of state that is grounded in practice; as a nexus of relations between governmental institutions and political institutions that can be empirically observed and studied (Abrams, 1988). This nexus of relations constitutes the

authority that creates, administers, and enforces rules that govern society, and predominantly shapes the direction of public policy (Scott, 2014). Furthermore, I utilise a notion of time that is networked, as an 'ordering of events' that does not necessarily or solely occur in a unidirectional, linear flow (Rovelli, 2019). Time is not absolute, and there exists no universal, single, flowing present. Every event that occurs is connected to other events by relations of causation, succession, or correlation, in ways that can only be described in contingent and context-specific ways. As Rovelli (2019, p. 16) argues, "The world is not like a platoon advancing at the pace of a single commander. It's a network of events affecting each other". Thus, conceptualising time as being networked involves viewing time as a web or a network of these partial temporal relations rather than as a single continuous line, always flowing from past to future temporal states.

'Temporality' then, is related to the way in which time or this ordering of events is experienced by individuals, communities, and institutions, not necessarily occurring in a natural and neutral flow, but constituted through social practices (Mayhew, 2015). As an illustrative example, a single event, such as the construction of a metro rail network in a city, may be experienced temporally by different actors and institutions in different ways. For the authority appointed to construct this metro and the construction company, the construction of the rail network would be experienced temporally in terms of timelines or construction schedules based on calendars, clock time, and funding cycles. This timeline might be 'sped up' (or prolonged) through the pressure of an elected politician in the city, operating on electoral cycles, and intending to align the construction timeline of the metro rail with that. For residents living in proximity to the construction sites and experiencing substantial disruption in their everyday lives, a few weeks or months of construction activity may feel like 'forever'. Thus, the construction of 'past', 'present', and 'future'

temporal states associated with in any event are relational and contextual, existing in a web or network of interconnections.

In this thesis, I use a case study method to study the smart city and the state through the workings of the SCM, particularly in Pune in western India. Through granular insights generated inductively from fieldwork involving interviews, field observations, and photo documentation, in conjunction with extensive documentary analysis, I study the rather airy conceptualisations of the smart city in a grounded manner. I ask:

a) What is 'smartness'? Whom is it for?
b) Why is the smart city always conceptualised as inhabiting a point in the future?
c) What does grounding the smart city in temporal space tell us about the state-in-practice in the contemporary moment?

In asking and answering these questions, I draw from literature, discussed in detail in Chapter 2, that argues that space is not just constituted geographically, but co-constituted temporally (Addie et al., 2024; Datta, 2017; 2024; Kitchin, 2019; 2023; 2024; May & Thrift, 2001; Lefebvre, 1974). I also utilise analytic insights put forth by scholarship on the 'state-in-practice' that argues that the state is internally differentiated with multiple decision-making centres which are not necessarily coordinated or aligned. The state is also pluralised in its functioning and operates through a web of connections between actors and institutions, within and across scales (Castells, 2005; Chandhoke, 2003; Jayal, 1999; Sud, 2017).

Here, scale refers to the relational extent of space. Scale is not merely about physical size (such as a province or a continent) or level (such as local, national, global) but also encompasses crucial relational and constructive components. To elaborate, scales are not fixed, pre-given geographic containers that exist by themselves—they are actively

made through political contestations over space, and exist in dynamic relation to each other. For example, the national state scale that we see in much of the continent of Africa today, did not exist organically in this way, but was created through colonial political contestations over space. Historically, in West Africa, the Hausa and Fulani communities existed across the British colony of Nigeria and the French colony of Niger. Present-day, independent Nigeria and Niger inherited these national boundaries which were not organised around the existence of ethnic communities in space, but imposed by colonial powers, separating them (Gashaw, 2017).

As another example, while one might attribute the local scale to 'neighbourhoods', they are also actively produced through government policies and associated narratives, zoning regulations in cities, and real estate markets. Thus, scales are constructed through human activity, relationships, and decisions. Finally, scales are also nested and in interaction with each other (Brenner, 2004; 2019; Gallaher, 2009; Marston, 2000; Rogers et al., 2013; Sud, 2017). Taking the example above, the local scale of a 'neighbourhood' is not merely about the physical size of the space, such as its area in certain square miles, but is shaped by the political, economic, and social relationships that constitute that space. Furthermore, this scale does not exist in isolation—a protest occurring against zoning regulations that promote environmental degradation in that one neighbourhood can potentially impact decisions at regional or national scales. Thus, power moves across scales and any decision made at one scale acquires meaning through its connections with others.

Using Pune's case, I unpack the temporal dimension of the workings of the smart city, and how it expands the internal contestation within and across the state's scales. I argue that through its area-based development or 'lighthouse' approach, the SCM creates what I call 'time enclaves' within the same geographic space. These enclaves are

envisioned to perpetually operate in a future time (and associated potentialities), functioning as lucrative zones, promoting speculative development in the city. I further argue that the smart city opens a space for temporal contestation within the state, whereby the SPV and institutionally entrenched management consultancies are framed as 'smart' institutions and actors of the future, in contrast to the inefficient, 'backward' local municipal corporations of the past. This fragments urban governance in the city further, rupturing accountability of the state to its citizens, holding implications for both urban development and the state-citizen contract. I discuss this lighthouse approach further when discussing the structure of programme implementation of the SCM in a later sub-section of this chapter.

In this way, I contribute to literature on the 'state-in-practice' and on temporal geography, by creating a bridge between them through studying the 'state-in-practice' using the lens of the SCM. Through this thesis, I show how the state is spatialised both geographically and temporally. The SCM does not just bring in a new assemblage of actors and institutions with a new backdrop in the oft-repeated story of the workings of the state. The SCM tells us that the story itself is going through a new iteration, with continuities to the past, and the future.

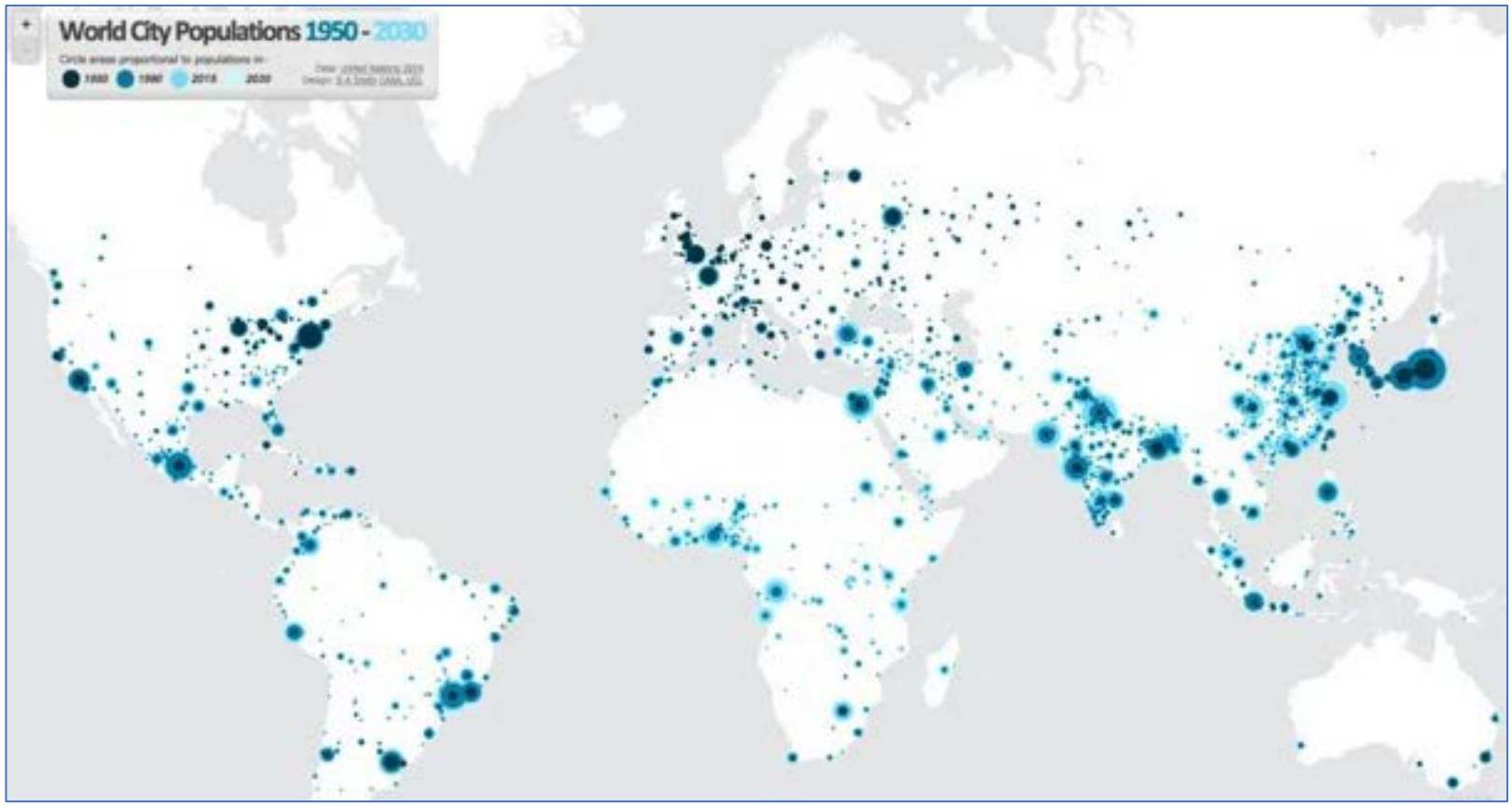
In what follows, I discuss the futurism of smart cities and the SCM in India further, situating the latter's rise in the context of rapid urbanisation and the global smart city trend initiated by large technology firms, as discussed briefly earlier. In section 1.2, I discuss the programme implementation structure of the SCM, as set out by the national directives, focussing on two key aspects—the use of an SPV for designing and executing SCM projects, and the emphasis on area-based development. I then discuss the case I examine, that of Pune smart city in section 1.3, and give context and details surrounding

the envisioned smart city projects. Finally, I provide a roadmap for the rest of the thesis, providing an overview of the rest of the chapters in section 1.4.

1.1 URBANISATION, FUTURISM, AND THE SMART CITY

The top brass of IBM astutely recognised the potential of cities in the early 2000s—the 21st century marks a first in human history, wherein a majority of the world's population lives in urban areas, not rural ones, and this transformation is projected to continue throughout this century (Townsend, 2013). As per United Nations (UN) data, by 2050, 6.5 billion people across the globe would be living in cities, and by 2100, this number is expected to rise to 8 billion out of the projected 10 billion figure of the global population (UN, 2014). Far from being equitably distributed in regions across the world, this mass urbanisation is expected to be concentrated primarily in South Asia, East Asia, and parts of West Africa. Figure 1 provides a heat map based on time-series data in the UN World Urbanisation Prospects (2018) dataset, created by Duncan Smith. The dataset used begins in 1950 and includes projections up till 2035. In the map, the darkest blue circles represent urban areas that existed from 1950s-1980s, while the lightest blue areas represent areas of projected urban population.

Figure 1: World City Populations 1950-2035



Source: Urban Data Visualisation by Duncan Smith, Bartlett Centre for Advanced Spatial Analysis (CASA) UCL; URL: https://luminocity3d.org/WorldCity/#8/18.804/74.224

Evidently, South Asia, and especially India is one of the most rapidly urbanising regions in the world today, and is expected to contribute more urban growth than any other single country in the coming decades (Misra, 2015). Thus, it matters to investigate, analyse, and understand the ongoing urban transformation in the country. In an increasingly globalised world, where the transcontinental flows of ideas, people, and capital are connected through the 'nodes' of cities, India's ongoing urbanisation story and its governance of cities, holds consequences for global development and significance for our understanding of it. The national government in India has certainly recognised the ongoing proliferation of cities in the country and placed it more actively in its policy and planning agenda from the 2000s. This is partly a result of the 1991 liberalising economic reforms that brought in numerous economic, political, and social changes in the country—the growth of more urban centres and a concomitant middle class, largely belonging to the professionalised services industry that grew exponentially after the reforms, are simply a part of that. At a later point in this thesis, I will delve into this in further detail.

For now, returning to our smart cities—in 2015, noting this ongoing urbanisation, the Government of India launched the Smart Cities Mission to create 100 smart cities in the country. It was said that earlier governments and planning regimes could not adequately tap into the potential of cities as engines of economic growth (Narendra Modi, 2015). Developing cities as "symbols of efficiency, speed, and scale" had also been on the election manifesto of the Bharatiya Janata Party (BJP), the ruling party forming the government, and the SCM was launched as a flagship programme of the government to fulfil this agenda, once it was sworn in (BJP, 2014, p. 18).

Curiously enough, the SCM parallels IBM's programme in design. The international management consulting firm, McKinsey & Co., assisted the Government of India in creating a blueprint for this programme (Aurora, 2015). On similar lines to IBM,

India too decided to organise a ‘City Challenge’ in which city governments would submit Smart City Proposals (SCPs) consisting of projects and plans to make their cities smart ones. They would compete with each other and 100 cities would be selected and offered an initial tranche of funding from the Government of India to start working on these smart city projects. A few years into this programme, every selected smart city also started creating an Integrated Command and Control Centre (ICCC), a data centre for centralising data feeds from the smart elements like sensors being deployed, paralleling IBM’s ‘Intelligence Operations Centre’ in purpose (Parkar & Purandare, 2023, p. 15)

In this way the technology industry’s very clear agenda to push their product not only created a whole discourse around urban development and governance, but disseminated it globally, aided by consulting firms, something evidenced by McKinsey & Co.’s involvement in the SCM plan in India. Today, so-called smart cities exist globally, but, the way that the smart city idea travelled to India, and has been implemented by way of the SCM, has been unique and different from its Global North counterparts. There are two key reasons for it. One reason is the way the smart city idea has been (un)defined and the second reason pertains to the implementation structure of the SCM. I discuss both of these in detail in what follows, with the programme’s structure being discussed in the next section.

The futurism that the smart city programme in India exhibits is similar to the futurism of other such smart cities, and other such programmes, yet holds crucial differences from them qualitatively. For instance, Halpern and Günel (2017) examine the smart cities of Songdo in South Korea and Masdar in the United Arab Emirates. In both these cities, smart interventions such as sensors that feed environmental data, traffic data, and the like in real-time into a networked computer system, are designed to promote efficient functioning of the city and provide an ideal model or prototype of city life in the

future that would be marked by environmental and climate crises. For example, in Songdo, authorities of the Incheon Free Economic Zone and Incheon City (on whose waterfront Songdo has been created) have made investments of over $30 billion, benefitting corporations largely, to construct infrastructure in this smart city such as smart electrical grids, high-bandwidth fibre optic networks, and an advanced underground trash processing facility that generates energy as well. The vision is of an efficient, self-regulating city that takes feedback from all the data collected by the smart elements in real-time and adapts to potential challenges. The smart city, then, is a futuristic utopia that is designed to counter and overcome a specific kind of envisioned futuristic dystopia. As they argue,

> The development of smart cities follows a logic of demoing [demonstrating], constant prototyping, testing, and updating; instead of a finished product, infinitely replicable but always preliminary versions are installed in cities around the globe. At the same time, the idea of the smart city is inextricable linked to notions of catastrophe, where the logic of the demo or testbed becomes a means for responding to the impending environmental, security, and financial destruction by constantly deferring this future from ever arriving (Halpern & Günel, 2017, p. 2).

The construction of the smart city in response to impending catastrophes is reiterated in the work of James Merricks White (2016, p. 574), who argues that the smart city's global imaginary consists of a "a common set of logics for anticipating future crises", namely, mass urbanisation, global climate change, and fiscal austerity pressures that municipal governments face. He argues that firms like IBM evoke the narrative of expected insecurity emanating by these looming crises to create "opportunities" in response, wherein digital technologies could be utilised to solve these potential problems and overcome the associated challenges. Thus, the future is represented and recruited in a way to sanction specific solutions in the present.

The futurism of smart cities in India shares similarities with those elsewhere in the world, and as White (2016) proposes, this future is used in a way to sanction specific

actions, programmes, and ideas in the present. However, the narrative of the future that the SCM operates with is vastly different, both in tone and substance. The SCM vision document begins by acknowledging the rapid urbanisation that is underway in India, and is expected to only accelerate in the coming decades. But, unlike White's (2016) framing of mass urbanisation as an impending crisis, it is framed as potentially challenging, but as also full of opportunity. In fact, while launching the SCM, the Prime Minister of India categorically stated as such, and the excerpt from his speech below, translated from Hindi to English demonstrates that:

> There was a time in our country… if you take out old newspapers, read [old] articles and analyses… urbanisation was seen as a very big challenge in our country…every time the discussion was around what will happen, how will it happen with this urbanisation. My thinking is different. We should not see urbanisation as a problem; we should see it as an opportunity…. if we see it as a challenge, that will frame how we address it…. We want to transform this urbanisation into an opportunity (Narendra Modi, 2016, timestamp 14:17).

There is a sense of hopefulness and aspiration that is coded into the national state's vision of the smart city—cities are seen as hubs of economic growth that will usher in greater material prosperity. Moreover, urbanisation is seen as the natural progression along the linearly-conceived trajectory of development.

The smart city is also seen as a prototype of futuristic urban living like Halpern and Günel (2017) argue, and this is reflected in its area-based focus (something that I will discuss in the next section). Digital technologies as solutions to challenges posed by urban living in the future certainly feature in this prototype development, however, they are by no means the programmatic focus of the SCM. As the vision document states,

> In the approach to the Smart Cities Mission, the objective is to promote cities that provide core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of 'Smart' Solutions. The focus is on sustainable and inclusive development and the idea is to look at compact areas, create a **replicable model which will act like a light house to other aspiring cities** (MoUD, 2015, p. 5, emphasis in original).

The development of liveable cities with provisioning of core urban infrastructure such as adequate water supply, solid waste management, assured electricity supply, public transportation networks, affordable housing, are amongst a few of the numerous objectives listed in the vision of the development of a smart city. While smart city in other urban contexts is typically about digitalisation, in India the idea of a smart city is all-encompassing. Smartness is defined as a 'wish-list' or an aspirational level of provisioning of core urban infrastructure and services to citizens using information and communication technologies (ICT), rather than as a specific goal or characteristic (Deloitte, 2019; Ministry of Urban Development, 2015). This has led scholars to argue that there is no clarity or consensus over what is meant by a smart city, and that in promising everything the smart city offers nothing at all (Kopardekar, 2019; Prasad & Alizadeh 2020; Prasad et al., 2022; Smith, et al. 2019; Taraporevala, 2018).

While sustainable development features as an overarching guidepost in this vision, climate change is nowhere addressed as a pressing and looming crisis that cities need to proactively respond and adapt to, unlike White's (2016) identification of the same as one of the crises that frames the narrative for smart cities. In fact, the term 'climate change' does not feature in the SCM's vision document at all.

Moreover, the vision and hope of the smart city also cater to the intended demographic category of the SCM. Evidently, the programme was to serve the aspirational middle class in India that has burgeoned after the 1991 economic reforms, and forms a core political constituency for the BJP (Thachil, 2011). The 'middle class' is rather difficult to delineate both empirically and conceptually. Some economic classifications are based on income levels or possession of certain material goods, such as electronics. Here, however, I utilise Leela Fernandes' (2006; 2015) work in post-liberalisation India which identifies certain characteristics of the middle class rather than

providing an all-encompassing or tightly-bound idea of them. For my work, these characteristics are of more analytical significance than empirically delineating a stratum of people as the middle class. Crucially, Fernandes argues that the middle classes are distinguished by an aspiration to upward mobility (both social and economic) and an exclusionary politics of distinction from the rich and poor. They are highly differentiated internally. For these middle classes, the aspiration of a prosperous, smart, world city that provides further avenues for upward mobility, including on a global scale, is compelling. In subsequent empirical chapters of this thesis, especially Chapter 4, I also explore this aspect of the SCM as it has played out in Pune, as a secondary focus.

The futurism of the smart cities of the SCM is not one marked by insecurity, but rather of overwhelming optimism, aspiration, and opportunity. Importantly, this representation and recruitment of the future, produces its own distinct set of consequences for the present. However, in the context of India, this aspect of smart cities—a critical analysis of their futurism, the consequences it produces in a tangible way in the present, and analysing the state through the prism of futurism remains underexplored and understudied. Why is the Indian state's vision of the smart city's future not marked by insecurity and impending crises, like the narrative that has been peddled by IBM and other such Big Tech corporations? If the vision is so different, what does 'smartness' and 'smart city' mean in the context of the SCM?

This investigation into the futurism of smart cities holds two-fold significance. One, it contributes to the scholarly discussion that recognises that smartness and smart cities in the context of the Global South carry different meanings, different agendas, and different politics as contrasted with the Global North (Luque-Ayala & Marvin, 2015; McFarlane & Söderström, 2017; Prasad & Alizadeh, 2020; Prasad, Alizadeh & Dowling, 2021; Shelton, Zook, & Wiig, 2015). By studying the SCM in India, and especially its

workings in Pune, this thesis provides contextually-informed, granular, empirical insights to inform an analysis of the futurism of the smart city, and what that tells us about the Indian state in the contemporary moment.

Two, investigating the futurism of the smart city holds implications for development planning. The SCM vision operates on a linear notion of time which is not unlike the proponents of modernisation theory that emerged in the mid-20th century and construed development as occurring along a unidirectional trajectory of progress, moving from states of underdevelopment to progressively more developed states—from 'traditional' to more 'modern' forms of economies and societies (Inkeles & Smith, 1974; Parsons, 1951; Rostow, 1960). These linear ideas of development inform the smart city vision in India. I briefly elucidate some existing critiques of linear notions of development, for they set the broader context that informs my investigation of the futurism of smart cities in India. I discuss how these critiques relate to this thesis towards the end of this sub-section and in the discussion of SCM's implementation structure in the next section.

Critical scholarship has argued that notions of development popularised by modernisation theory are Eurocentric, ahistoric and dis-embedded from politics. For instance, Arturo Escobar (2012) argues that 'development' is a historically produced discourse, emerging in the post-World War II era of global politics—pioneered by President Truman of the United States of America with his 'New Deal' in 1949 that set the discourse for international aid and development for 'underdeveloped' nations. As a consequence, this discourse produced a self-perception of underdevelopment amongst formerly colonised nations, and a drive and desire to escape from this pathologized condition of 'underdevelopment'. As Gustavo Esteva (2019, p. 6) argues, "The word [development] implies a favourable change, a step from the simple to the complex, from

the inferior to the superior, from worse to better". By illuminating how these notions of development are produced and disseminated amongst countries of the Global South, this scholarship debunks the linear notions of progress that are deemed intrinsic to the idea of development and instead highlights its complex, politically-driven, and historically situated nature.

In fact, scholarship has also shown that such notions and practice of development are a form of politics in itself, concealing the interests of those in power, while standing to benefit them (Chhotray, 2011; Escobar, 2012; Ferguson, 1994; Mitchell, 2002; Mosse, 2005). Most notably, James Ferguson (1994) studied a rural and agricultural development project in Lesotho and its supposed "failure" in implementation. He argued that the development apparatus in Lesotho was not a machine for eliminating poverty but instead was a machinery for reinforcing and expanding the exercise of bureaucratic and state power. Thus, by projecting development projects as purely technical and neutral, a façade can be created which covers the execution of political operations and exercise of state power.

The Indian state, from the outset, has echoed this Fergusonian depoliticisation of development, most visible with the national Planning Commission established in 1950[2], comprised of rational bureaucrats and technocrats, that sought to create economic planning as an autonomous domain from the disorderliness of politics. However, the endeavour to keep development planning isolated from democratic politics often resulted in the state being able to achieve less developmentally. Thus, while analysing 'The Anti-

[2] The Planning Commission crafted five-year plans to determine the nation's objectives for development and the allocation of resources for the same in that period. The Planning Commission was dismantled by the Government of India under the leadership of Prime Minister Modi and officially ceased operations on 31 December 2014. It was replaced by NITI (National Institute for Transforming India) Aayog on 1 January 2015. NITI Aayog operates like a policy think-tank for the government to promote economic growth and development *sans* the mandatory, national five-year economic planning.

Politics Machine in India', Vasudha Chhotray (2011, p. 50) argues that, "depoliticization it would seem is hardly about the doing away of politics, but about the selective uses of particular meanings of politics with significant implications and consequences for development".

In the context of the SCM, the "selective uses of particular meanings of politics" as mentioned above are tied to the nebulous futurism of the smart city. Thus, in this thesis I investigate and unearth the same, with various empirical chapters of this thesis examining the different futures of the smart city. But importantly, as mentioned earlier, opening up the notion of time encoded into development planning, and the public policies and programmes resulting from it, opens up the politics associated with. It offers a window to understand whose future is represented in ideas of development, how that future is recruited, and to what consequences.

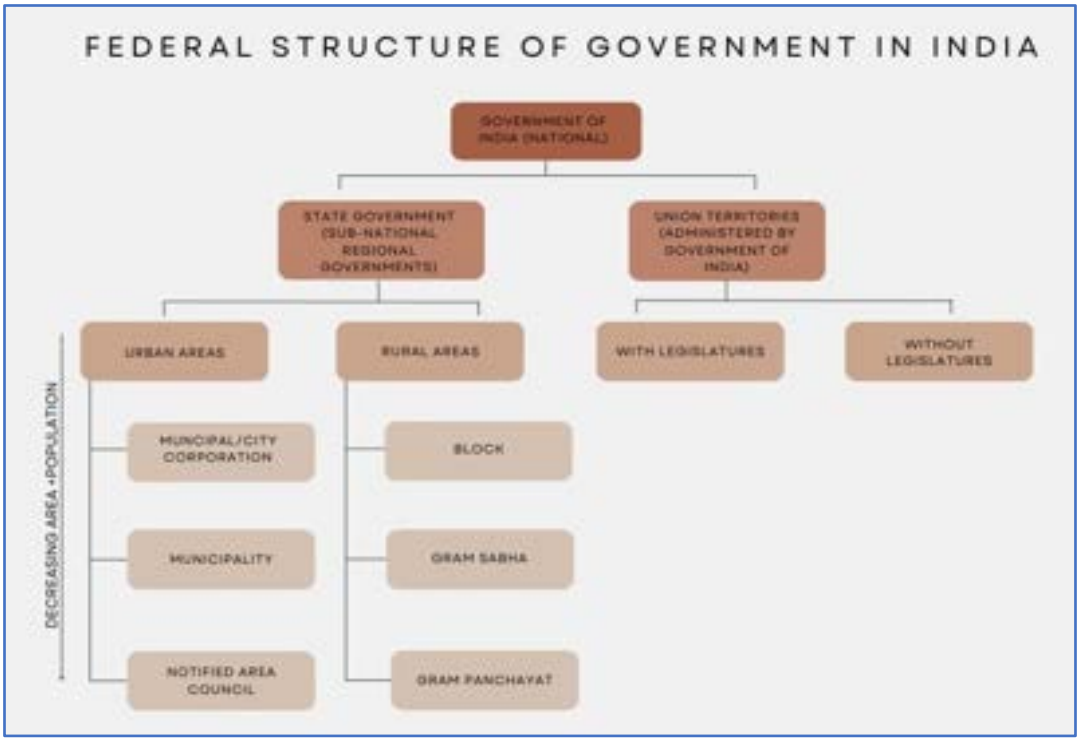
The lens of networked notions of time and interlinking of temporal states allows us to grasp that future(s) are imminent in the present—the material realities and political dynamics of the present are in turn informed by the past through histories of colonisation, postcolonial developmentalism and the like. In doing so, this lens bridges the imagined temporal distance between 'then' and 'now', and allows us to better appreciate the profound implications, material and ethical, that actions taken in the present hold. Just like development projects do not take place on a *tabula rasa* that is devoid of the legacies of the past, the future is not a distant blank canvas divorced from other temporal states. A recognition of the same encourages a reconstitution of development planning with interwoven temporalities as the norm rather than linear notions of progress and time. In Chapter 8 of this thesis, which is the concluding chapter, I elucidate upon this more, calling for further research and exploration into the temporal dimension in the workings of the state, notions of development, and the policies emerging from those notions.

To briefly recapitulate, in this section, I discussed the futurism inherent in the smart city and why they serve to make the SCM a pertinent subject of inquiry. The futurism of the smart city in India is qualitatively different from smart cities elsewhere in the globe—studying it also holds significance for understanding rapid urbanisation that is underway, as India is projected to be a hotspot for urbanisation the coming decades. In the next section, I discuss the second aspect of why the SCM makes for a fascinating a subject of inquiry, particularly to understand the workings of the state. I do so by explaining the structure of implementation of the programme, honing in on the deployment of SPVs for creating smart cities.

1.2 PROGRAMMATIC STRUCTURE OF THE SCM IN INDIA

India has a three-tier federal structure of government. At the national level, operates the Government of India or the Central government. At the regional, sub-national level exist State governments. I use ‘State’ with capital ‘S’ to distinguish it from the concept of state being used otherwise in this thesis. At the local level, urban local bodies (ULBs) or municipal corporations exist in cities while *gram panchayats* exist in rural areas. Figure 2 provides a more detailed visualisation of this.

Figure 2: Federal structure of government in India

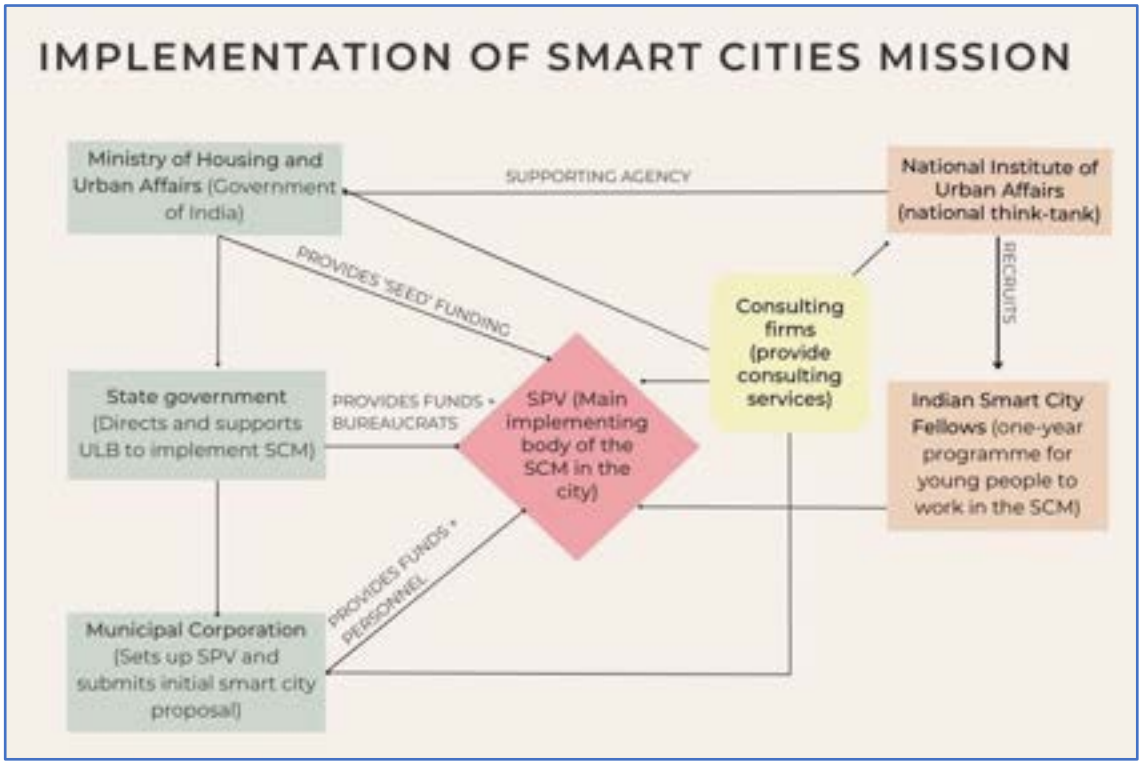


Source: The Author

The SCM utilises the federal structure of government for its implementation, but interestingly, does not solely rely on it. The programme mandates the creation of Special Purpose Vehicles (SPV) for its implementation. The SPV is not simply a department or division under any of the pre-existing governments. Instead, it is a company incorporated under the *Companies Act, 2013*, with the State government and the ULB being its promoters and holding 50:50 equity. In the SCM's programme design, the SPV is the sole body tasked with formulating and implementing smart city projects. ULBs delegate decision-making powers to this SPV that they would otherwise have, increasing the internal differentiation of the state (Housing and Land Rights Network, 2017). This SPV is financed through the three tiers of government. The Government of India provides 50% of the initial grants or 'seed funding' to start the SCM projects, whereas the State governments and municipal governments are expected to provide the remaining 50% of the initial funding. The SPVs or the smart city corporations are then expected to raise the remaining finances through municipal bonds, public-private partnerships, loans from

agencies like the Asian Development Bank, World Bank, and their own revenue streams (MoUD, 2015). Thus, in programme design itself, the SCM relies upon the networking of the state, with both supra-national and sub-national actors. Figure 3 below provides a visual summary of the implementation of the SCM.

Figure 3: Agencies and institutions involved in the implementation of the Smart Cities Mission



Source: The Author

To participate in the SCM and avail of 'seed' funding from the Central government, cities developed a Smart City Proposal (SCP) in collaboration with a Project Management Consultant chosen from a list of 50 consultancy firms pre-approved by the Government of India (Purandare, 2021; see Appendix-IV for list of approved consulting firms). The consultants assisted the SPVs in formulating the proposed SCM projects. This is the first time that consulting firms have been institutionally entrenched into a national government programme, expanding the existing pluralisation of governance and state functions. To create these SCPs, the urban local body could also take assistance from

“handholding agencies” like the World Bank, the Asian Development Bank, UN Habitat, the United States Trade and Development Association, and the Foreign, Commonwealth and Development Office of the UK, as these organisations are supposed to have prior experience with smart city development (MoUD, 2015, p. 10). This reiterates the linear notion of development, as described in the previous sub-section of this chapter, which is encoded in the state’s vision for smart city development in which local corporations represent this state of underdevelopment and therefore, require support in the form of “handholding” from global organisations and Global North agencies to progress to successfully formulate a vision of smart city development for their cities.

Cities (and consulting firms) were given 100 days to formulate their SCPs, which were then submitted to the Central Government for review and approval (Purandare, 2021). In this process, cities competed with each other to obtain government funding for their development. The ‘best’ SCPs that had the highest rankings in the first round were offered the first tranche of funding to start their projects in 2016. In this way, smart city projects were initiated in 20 cities in this first round of the City Challenge. There were three further rounds of similar competitions held, and by 2018, 101 cities across India were selected to become smart cities in India. Pune smart city, the one this thesis focuses on, was selected in the first round of the City Challenge and commenced work on implementing envisioned projects in 2016.

Thus, the SCM is informed by an entrepreneurial and competitive drive to create cities in India that can become world cities that are driving economic growth by being attractive destinations for capital, at par with other such cities globally. For this reason, the programme relies on the SPV instead of the urban local body in the city to drive implementation of smart city projects. Urban local bodies are seen to be mired in financial challenges and plagued by incapacity, having an inadequate supply of “skilled and trained

human resources" (NITI Aayog, 2021, p. vii). The SPV, on the other hand, is aided by international management consulting from the formulation to the implementation of smart city projects. These consulting firms are seen as "the objective brokers of expertise", offering technical, apolitical solutions to complex problems with speed (Mazzucato & Collington, 2021, p. 5; Vogelpohl & Klemp, 2018). The SPV is supposed to be made smarter, faster, and more efficient by their presence. In fact, the SCM vision document states that, "One of the primary reasons for the creation of an SPV for the Smart City Mission is to ensure operational independence and autonomy in decision making and mission implementation" (MoUD, 2015, p. 39). The operational independence and autonomy of the SPV also comes from its form as a corporation, unfettered by the pulls and pressures of democratic politics that the urban local body has to grapple with, that slows down the decision-making process. Thus, the SCM does not simply want to create a futuristic city, it wants to leapfrog towards it with speed.

Urban local bodies and existing urban planning authorities are deemed unfit to execute this task, having not "grown at the pace of the demands posed by urbanisation and global technological advancements" (NITI Aayog, 2021, p. vii). This is seen as a hindrance to the realisation of the economic potential of urbanisation in India. In other words, the SPV represents an emergent, smarter, more competent entity that is better suited to tap into the potential of the future (economic or otherwise) and arrive there. The ULB represents an older form of the state that is politically entrenched, slower, and less capable—an artefact of the past. Thus, the SCM also opens a dimension of temporal contestation within the state. In this thesis, through empirical data from Pune smart city, particularly in Chapter 7, I explore this temporal contestation within the state and examine its implications.

It is important to mention here that focus of the thesis, and particularly in the empirical chapters is on the national and local scale of the state. The sub-national/regional scale of the state find little mention because in the case of Pune smart city, the State government of Maharashtra has had very little role to play except in providing financing to the SPV and some personnel in the form of civil service officers. The latter also work for the national government as career bureaucrats making it difficult to place them squarely as sub-national state actors, and as such their positions and promotions are also determined by ministries of the national government in Delhi. For all the selected smart cities in Maharashtra, the State government provided some broad directives for the implementation of the SCM in the state, but the detailed plans have been developed by municipal corporations in conjunction with consulting firms.

A second notable component of the SCM is its emphasis on area-based development. As mentioned at the beginning of this chapter, within every selected smart city, most of the proposed projects are to be concentrated within a "compact area" which is to be developed as a "lighthouse", as a model for smart city development for other areas of the city and other cities (MoUD, 2015, p. 5). The constant demonstrating, prototyping and testing of smart city interventions are supposed to be carried out in this specific area. The programme mandate states that the SCP must contain at least one project implementing smart solutions such as smart water meters, that is geared towards 'pan-city development' as "it is necessary that **all the city residents feel there is something in it for them also**" (MoUD, 2015, p. 9, emphasis in original). However, this element of pan-city development is stated as an additional feature of the smart city development plan—the core component is still area-based development.

This is striking, for previous urban development programmes have implemented projects across the city as a norm. For instance, if a previous programme like the

Jawaharlal Nehru National Urban Renewal Mission (JNNURM), which also aimed to modernise cities, brought a new intervention like low-floor buses, the operation of that fleet of buses was not concentrated to one pocket of the city only. In fact, the creation of a comprehensive City Development Programme was a key component of JNNURM (Ghosh, 2025). In the quoted text above, the emphasis on making city residents *feel* like there is something in it for them also exhibits the ambiguous, catch-all, affective nature of smart city conceptualisations. Thus, in its workings, the SCM is not moving entire cities onto a future temporal state, instead a smaller, selected area is chosen within the city that is envisioned as the smart city which is experimenting with futurity in the present. What drives the selection of these compact areas? What consequences does moving a part of the city onto a future temporal space of opportunity and aspiration produce? These sub-questions support the inquiry into the themes and concerns raised by the primary research questions driving this thesis, mentioned earlier.

Finally, within areas that are chosen for area-based development, cities can implement projects for 'retrofitting' or 'redevelopment' to transform that area into a smart one. Retrofitting projects are aimed to introduce planning in an existing built-up area, especially using smart solutions that are driven by technology to improve infrastructure and services. Redevelopment projects, on the other hand, aim to replace an already existing built-up area with a completely new layout, with mixed land-use involving both commercial and residential areas, in a way that promotes a higher density of both infrastructure and population in that area (MoUD, 2015).

Lastly, cities can also implement greenfield[3] projects that are geared towards developing previously 'vacant' areas around the city to accommodate expected expansion

[3] Greenfield development refers to development from scratch of infrastructure (such as roads, flyovers, sanitation pipelines) and real estate on land that was previously 'undeveloped' i.e., lacking in these markers. It

of the urban population in the future. This compact area chosen for area-based development is envisioned to drive economic growth and enhance the quality of life for people. The benefits of the envisioned prosperity of this selected area are supposed to trickle down to the rest of the city promoting inclusive development. I critically examine this component of area-based development of the SCM throughout this thesis, and in Chapter 6, in particular. Having discussed the structure of implementation of the SCM, I now turn to detailing its workings in Pune, while also giving context and an explanation for the selection of this case in the next section.

1.3 THE SCM IN PUNE

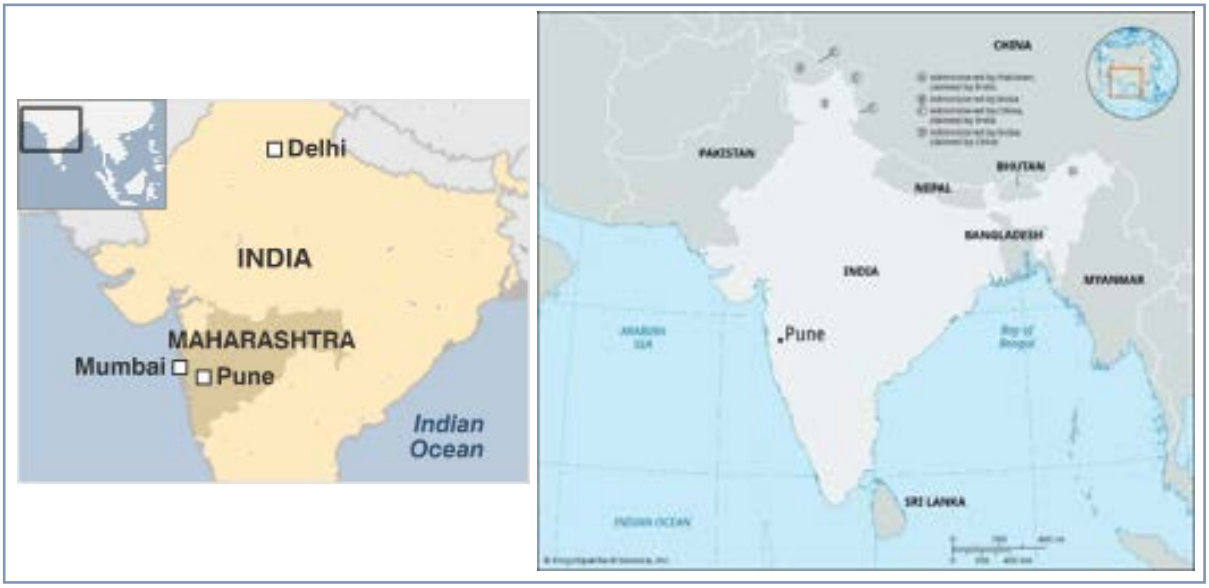
To investigate the research objectives set out earlier in this chapter, I adopted a qualitative in-depth case study of one of the cities under the SCM in order to capture the granularities and specificities of the interplay of temporality and politics being studied. To this end, case study research enabled teasing out those complexities. But the case study method used in this thesis is instrumental in nature, not intrinsic (Stake, 1995). The objective is not to document and understand the granularities of the case as an end in itself but to create some level of generalisation that allows the micro-processes of the workings of the SCM, especially in Pune, to be related to the macroprocesses of state restructuring with ongoing urbanisation and smart city-making.

I chose the Pune Smart City Mission in the State of Maharashtra, India as the specific case that was examined through a combination of fieldwork and documentary analysis. Figure 4 below provides the map location of the city. The city of Pune was chosen because of the strong emphasis the local government has on creating a good

requires significant capital investments. Brownfield development on the other hand, refers to development on land that already experienced some degree of infrastructure and real estate development at some previous point in time.

business climate that promotes economic development, with the smart city SPV that has been set up in the city, i.e., the Pune Smart City Development Corporation Limited (PSCDCL) clearly envisioning itself as a market-oriented "thin SPV" (Pune Smart City Development Corporation Limited., n.d.). This exhibits precisely the entrepreneurial and corporatised characteristics of the smart state (as opposed to the older, politically entrenched state) that this thesis seeks to investigate.

Figure 4: Map location of Pune



Source: Left: BBC News, 2010; right: Britannica, 2024

Secondly, Pune is home to a large IT industry, and as discussed earlier, the socio-technical imaginary of the smart city elsewhere in the world has been pushed in large part by big technology firms. This made the city an apt site to study the futurism of the smart city and why its conceptualisation is premised on the anticipation of prosperity, and not looming crises as opposed to its other global counterparts. It also made the city an appropriate site to observe if the technology industry has played a significant role in the way the SCM has panned out in the city, and the reasons for the same. Finally, the city was also among the first twenty cities to be shortlisted and approved under the programme in 2016, and to receive funding from the central government to implement its projects.

This provided ample time and scope for the implementation of the programme to have taken place, and to study the dynamics that were (and are) involved in it.

To give some context and history about the city, Pune's development has historically been centred on the growth of industry, presence of institutions of higher education, and its proximity to the megacity of Mumbai, the financial capital of India (see Figure 4). Post-independence, the city's development was focussed on making it an industrial centre, in keeping with the urban policy of the early-planning era driven by the then Prime Minister, Jawaharlal Nehru's vision of modernising India through the development of industries and the promotion of science and engineering (Weinstein, Sami, & Shatkin, 2014). To this end, a parastatal agency, the Maharashtra Industrial Development Corporation (MIDC) was created in 1962 to acquire land in the state and develop and lease it for industrial use. One of the MIDC's biggest initiatives was the development an industrial complex in the villages of Pimpri and Chinchwad near Pune. By 1992, the cities of Pune and Mumbai accounted for 70% of Maharashtra's industry (Dastane, 1992, p. 91). For Pune, the sectoral focus of industrial development was automobile manufacturing and engineering. However, after the 1991 economic reforms which liberalised the economy, Pune witnessed the growth of the IT industry, which attracted foreign investment and also led to the city's economic and population growth (Krishnamurthy et al., 2016). Presently, Pune is the second-largest city in Maharashtra, and the seventh-largest overall in India in economic terms with a GDP of 69 billion USD in 2021 (Tiwari, 2021).

Pune, like many other cities, struggles with sustainable and inclusive development. The city has experienced significant in-migration with its expansion since the 1991 reforms, which has led to a rise in a professionalised middle class, along with greater informalisation and inequity. In 2011, 32.5% of the city's population resided in informal

settlements that covered 2.34% of the land area under the Pune Municipal Corporation's (PMC) jurisdiction. There is evidently a strain on the city's critical resources from land, to water, to energy (Krishnamurthy et al., 2016). The urban governance architecture remains complex, with a multiplicity of government bodies having overlapping jurisdictions from the PMC, to the MIDC, to the Pune Metropolitan Region Development Authority (PMRDA), to the Maharashtra government, and now the Pune Smart City Development Corporation Limited. There is clearly a fragmentation of political power at the city-level (Sami, 2012).

It is in this context that the Smart Cities Mission in Pune was launched to promote sustainable and equitable development of the city through technocratic solutions. In a competitive process where cities bid for grants from the Central government for their smart city initiatives, Pune developed a smart city proposal in consultation with McKinsey & Co., and its proposal came in second in the competitive process in 2015, and 2016 onwards the SCM projects were launched. In this proposal, it was decided that 75% of the budgetary allocations would be for area-based development, and the remaining 25% would go towards pan-city development and the SPV's own operational expenses. Table 1 below provides the financial outlay as mentioned in the proposal. Some of the projects suggested for area-based development included sanitation projects, slum rehabilitation and affordable housing, along with e-governance initiatives. Some of the pan-city projects included 24x7 water supply in the city and transportation projects (Pune Municipal Corporation, 2015b).

Table 1: Proposal for Investment in Pune as Submitted in the Smart City Challenge, 2015		
	(In INR)	(In USD approximately)
Total Investment	2,932 crores	354.41 million
Area-based projects	2,196 crores	265.46 million
Pan-city projects	671 crores	81.11 million
SPV Expenses	65 crores	7.85 million

Source: Pune Municipal Corporation, 2015a

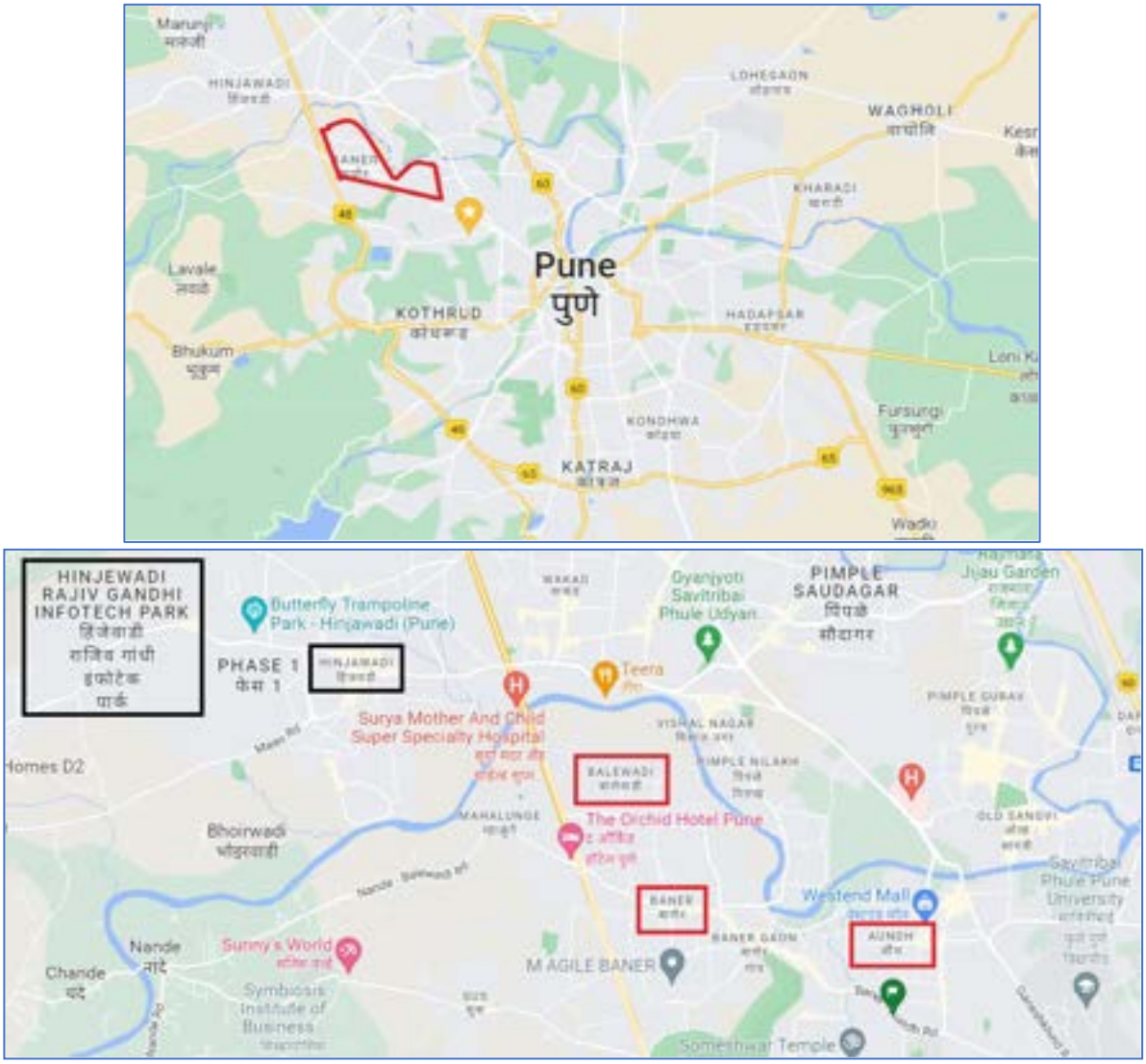
The areas chosen for area-based development in Pune were Aundh, Baner, and Balewadi (ABB)[4]. These areas lie towards the city's fringes in the north-west and constitute around 1% of the total municipal area (Prasad et al., 2022). These areas are also geographically proximate to the IT industry located in Hinjewadi (see Figure 5). The official reason provided for selecting these areas was that they constituted three separate cases. Aundh was an area that was already developed, Baner had a 'medium' level of development, and Balewadi was 'not at all developed' and held the potential for greenfield development (Interviews with Kartik[5], Chief Knowledge Officer[6], PSCDCL, 7/9/22, Pratap, PSCDCL engineer, 29/11/22). In this way, smart city projects in each of these areas would demonstrate how areas at varying levels of development can be made 'smarter' in the future. My fieldwork in Pune was largely concentrated in this ABB region. In Chapter 3, wherein I discuss the methodology deployed for this research project, I elaborate upon the fieldwork process more.

Having laid out the research objectives of this thesis, and having discussed the Smart Cities Mission, along with the case that has been chosen to develop this thesis on, I

[4] Several acronyms have been used throughout this thesis. They have all been listed in the glossary provided at the beginning (pages 13-16), which may be consulted for reference.
[5] Kartik is a pseudonym. The real names of my informants have been withheld to protect their identity and privacy. Throughout this thesis, pseudonyms are used, unless specified otherwise. More discussion on ethical considerations involved in this research project can be found in Chapter 3.
[6] Typically, in a company, the 'Chief Knowledge Officer' is a part of the senior management and manages 'knowledge assets' of the company. These include best practices the company uses, and intellectual capital and key information that it possesses. The Chief Knowledge Officer oversees the usage and deployment of these 'knowledge assets' to create strategies that can enhance the company's competitive advantage in the market (Sridharan, 2024).

now provide an overview of my primary arguments. along with a roadmap of the rest of this thesis.

Figure 5: Map location of Aundh, Baner, and Balewadi in Pune



***Marked in red**: map location of ABB region in Pune; **marked in black**: IT-industry dominated area in Pune. Source: Google maps; modified by the author to mark relevant locations*

1.4 THESIS ROADMAP

Through this thesis, I argue that the smart city of Pune has three kinds of futures inherent in it. Deploying a networked notion of time, I take temporal states as being intertwined through dynamic interlinkages—past, present, and future exist in relation with each other. I formulate and discuss three kinds of future temporal states that are at play in the futurism of the smart city—a future from the present (Present-Future), a future from the past (Past-Future), and a future from the future (Future-Future). In doing so, I advance Adam and Groves' (2007) investigation of temporal states in how futures are imagined, created, and known, along with a critical consideration of the implications of the same. I discuss this further in the next chapter where I provide the review of literature. While my identification of the Present-Future is similar to Adam and Groves' (2007, p. 28) formulation of 'present futures' i.e., "futures that are imagined, planned, and produced in and for the present", my formulation of the temporal states of Past-Future and Future-Future (a future imagined from the past and one which perpetually exists in an imagined future, respectively) are novel and distinct. These three analytic conceptualisations of the future (see Table 2) not only provide a comprehensive analysis of the futurism of the smart city but also an opening to understand the intertwined temporalities in the workings of the state.

Table 2: The Three Conceptualised Futures of Smart City	
Present-Future	The future of the smart city imagined for objectives to be met and gains to be made in the present
Past-Future	The future of the smart city imagined through the past, to overcome the past, and informed by legacies of the past
Future-Future	The future of the smart city that perpetually exists in the future, completely abstracted from the past or present (notionally)

Source: The Author

Through this analytical lens of multiple futurisms, I also analyse the state's workings and argue in Chapter 8 that the SCM opens a window to observe a split in the state's own self-concept. In this thesis, I build this conceptualisation of multiple futures through insights generated inductively through my data, especially with reference to my case.

However, before arriving at the empirical data that forms the backbone of this argument and analysis, I provide a review of the existing literature and my theoretical framework in the next chapter (Chapter 2). In this chapter, I discuss the two large bodies of literature that form the theoretical framework for this project, namely one that studies the state-in-practice and examines how it is a pluralised, networked, and internally differentiated entity that is being restructured with processes of globalisation and neoliberalisation. Secondly, I examine the literature on temporal geographies and smart cities, which examines, among other things, how the smart city produces its own kind of temporal space. I discuss significant scholarly contributions in both these bodies of literature, and situate my work in them. In particular, I discuss how this thesis' contribution to scholarship lies in forming a bridge between these two bodies of literature, and I do so by linking them through the analytic of 'state in temporal space'. I also provide an overview of literature informing the context for my fieldwork—work on state politics in Maharashtra and specifically, Pune and the shift in India's political economy with the 1991 economic reforms. I situate the rise of the SCM within the substantive shifts that the economic reforms brought about.

In Chapter 3, I detail the research methodology that has been deployed for this project. I explain the overall research design including the rationale for choosing an inductive logic of inquiry to answer the core questions outlined earlier in this chapter. I detail the various methods of data collection I used and the tools for analysis, along with their limitations in achieving my research objectives. I also describe how and why my

fieldwork inductively altered my research questions from the initial proposal stage. Finally, I discuss the ethical considerations involved in this project, along with my own positionality as a researcher.

Chapters 4, 5, 6, and 7 are the empirical chapters of this thesis. In these chapters, I delve into the three kinds of futures of the smart city, as evidenced through the Pune SCM. There is a future of the smart city that perpetually exists in an abstracted future (Future-Future), always imminent, but never reachable. This is the idea of the future that is technocrat-driven—an efficient, depoliticised utopia propagated by technology and consulting firms. In Chapters 4 and 5, I explore this further. In Chapter 4, I do so by analysing the contestations within the state-in-practice over the aesthetics associated with a (futuristic) smart city, highlighting how these contestations over aesthetics also reflect temporal contestation within the state. I also explore what happens to the smart city when the envisioned smart city aesthetics are sought to be grounded in temporal and geographic space. In Chapter 5, I specifically analyse the workings of consulting firms in the SCM. I explore the strategies they use to entrench themselves within the state apparatus, peddling ideas of always-imminent smart cities. I also examine the role that they have played in the implementation of the SCM, along with the pushback that they have received in Pune. These chapters answer the first research question on what is meant by smartness, when it is grounded in temporal and geographic space, and whom it is for.

In Chapter 6, I unpack and examine the future of the smart city that is imagined from the present (Present-Future), and I do so by studying the local political actors and real estate developers in the city who seek to capitalise on the inherent futurism and associated positive imagery of the notions of smart city. For them, the future is envisioned from and for the present. For real estate developers, the futurism of the smart city enables gains to be made in the present through the promotion of speculative development in the

smart city areas, and the local politician-builder nexus brings the former into this mix. The political clout of a local politician is used to bring the smart city out of its Future-Future to its Present-Future. I argue that through its area-based development or lighthouse approach, the SCM creates what I call ‘time enclaves’ within the same geographic space. These enclaves, envisioned to perpetually operate in a future time (and associated potentialities), function as lucrative zones, promoting speculative development in the city in the present. This chapter, along with chapter 5 which looks at the role of consultants, answers the second research question on why the smart city is always imagined in the future, by looking at the material interests propagating the same.

Finally, in chapter 7, I analyse the construction of the future of the smart city from the past by analysing the continuities and differences between the postcolonial developmental state and the smart, corporatised state, as represented through the SPV. This chapter explicitly details the workings of the state in temporal space. I detail how the SCM and the creation of SPV has led to an increased fragmentation of urban governance in Pune. This is a result of the contestation between the local corporation and the SPV which has led to a territorial and temporal division of governance within the city. I show how the Pune Municipal Corporation refuses to manage SCM projects, and further uses the land monetisation mechanisms it controls, such as Transferrable Development Rights, to stall land acquisition for the SPV.

In Chapter 8, which is the concluding chapter of this thesis, I tie up the findings and insights obtained from the empirical data from previous chapters to provide a cohesive account of the qualitative transformation underway in the state, as evidenced through the SCM. Through Chapter 7 and Chapter 8, I answer the third research question informing this thesis, one on what grounding the smart city in temporal space tells us about the state-in-practice in India in the contemporary moment. I argue that the temporal

contestation within the state, as evident through the SCM, allows us to observe a split within the state's own self-concept—between the emergent smart state and older state formations. This split is further rupturing accountability of the state to its citizens, but crucially, this dissonance in the state mirrors a flux in the state-citizen contract and a dualism in the state's conception of its citizenry as well—the smart citizens and the unsmart ones. It holds profound implications for governance and for urban development. I conclude by providing a summary of my central thesis, the significance of my arguments, and avenues for further research.

In this way, I examine the futurism inherent in the smart city in India and its implications. While previous scholarship has explored the entangled temporal states of the present in the smart city (Adam & Groves, 2007), this thesis offers the first of its kind (to my knowledge) in-depth analysis of the futurism of the smart city, substantially grounded in insights generated through empirics. In doing so, I actively put into conversation two large bodies of literature, ones on the state-in-practice, and on temporalities in urban geography, and form a bridge between the two, potentially opening up avenues for further research that studies the interplay of temporality and politics within the state. Moreover, in the concluding chapter, I build on these insights to offer a distinct conceptualisation of the ongoing transformation in the state in India.

CHAPTER 2: REVIEW OF LITERATURE AND THEORETICAL FRAMEWORK

This chapter lays the groundwork for the empirical and analytical components of this thesis by critically reviewing existing scholarship on the state, its restructuring with globalisation and liberalising economic reforms, and the entrepreneurial urban agenda that is generated through them. The genesis of the smart cities programme is situated in this context, as was established in the previous chapter. I also critically review literature on temporalities in urban geography—the dimension of time in the constitution of space—and analyse the emergence of smart cities as a type of 'fast city' in this context. These two broad bodies of literature form the theoretical framework for this research project, and I analyse key theoretical and empirical contributions in these bodies of scholarship, highlighting gaps and debates, and how they influence the research aims of this thesis.

By synthesising insights generated from the existing literature reviewed here and the relevant debates contained therein, I explain and clarify the conceptual tools that will be used throughout this thesis. Thus, this chapter lays down the foundation for the analysis presented in subsequent chapters, detailing in the process how this thesis furthers academic conversations around the state-in-practice, temporal space, smart cities, and postcolonial urbanism. It directly supports the research questions laid down in Chapter 1, which seek to investigate the SCM's airy conceptualisations of smartness and the smart city, probing the futurism inherent in them, and analysing what grounding the smart city in temporal space tells us about the workings of the state in India in the contemporary moment. The next chapter builds upon this, detailing how these research questions are answered empirically, the methodology used to gather and analyse data, and the logic of inquiry that guides this project.

As this thesis examines the state using the lens of the SCM in a grounded, empirical way, the existing literature on the state-in-practice is what is most applicable (Akhtar, 2025; Bear, 2013; Castells, 2005; Chandhoke, 2003; Cerny, 1997; Harris-White, 2003; Hibou, 2004; Jayal, 1999; Sinha, 2019; Sud, 2009; 2017). This body of literature layers the workings of the state and explores its granularities, particularities, and internal contestation—elements this thesis also seeks to investigate.

Further, literature on urban entrepreneurialism informs the work presented in this thesis, and I draw from several analytical concepts present in that literature, such as the 'worlding' of cities, speculative urbanisation, and urban managerialism (Goldman, 2011; Harvey, 1989; Jessop, 2002; Ong, 2011; Sassen, 1991; Shatkin, 2008; 2022). Existing work on smart cities, particularly in the context of India, has drawn on this scholarship in its analysis. This body of work certainly holds relevance for the purposes of this thesis and some key concepts are also discussed later in this chapter, but it remains inadequate to analytically explore and capture the integral futurism of smart cities. Thus, I turn to scholarship examining temporalities in urban geography, a body of literature which analyses the dimension of time in the production and constitution of space, and the consequences that this produces. This scholarship utilises and builds upon networked notions of time, from earlier work in disciplines as varied as physics, anthropology, and human geography. In doing so, it explores plural, entangled temporal states that are produced through the networking of time. Throughout this chapter, I identify gaps and avenues for connection in the bodies of literature that form this project's theoretical framework and situate this thesis' unique contribution to scholarship by forming a bridge between these two yet-separate bodies of knowledge.

The rest of this chapter is structured in three main parts. In the first part, section 2.1, I discuss and critically review existing scholarship on the state-in-practice, focusing

on the pluralisation of governance and the networking of the state. These concepts are elaborated upon below and given the aims and context of this thesis, I particularly hone in on the rise of consulting firms and the informal networks of the state. In section 2.2, I review key works studying temporalities in geography, in the urban context and particularly in relation to smart cities. Throughout these sections, I also highlight how I aim to build upon and extend these literatures. In section 2.3, I bring together the literatures that form the framework for this thesis and specifically discuss how they will be deployed in this work. The next section, 2.4, provides and critically engages with contextual literature that explains the characteristics of the postcolonial developmental state in India and state restructuring after the country's 1991 economic reforms. I further discuss urban governance and planning in this scenario, explaining key shifts in the politico-economic landscape that have given rise to the SCM and shaped its implementation in Pune, the case I investigate in the empirical chapters that follow. In this way, the literature reviewed in this chapter guides the interpretation and analysis of the data collected for this study. The concluding section of this chapter highlights the conceptual contributions of this work to the literatures discussed.

2.1 THE STATE-IN-PRACTICE

Philip Abrams (1988) offered a key intervention into and critique of existing conceptualisations of the state by arguing that the state is not a homogenous, monolithic entity. Instead, he made a distinction between the 'state-system' and the 'state-idea'. The former refers to the nexus of relations between political and governmental institutions that can be empirically observed and studied. The 'state-idea', on the other hand, is a fallacious ideological construction of the state, emerging from the 'state-system', but falsely ascribing a unity and cohesion to it. For Abrams (1988, p. 81), "the state is at most a message of domination – an ideological artefact attributing unity, morality, and

independence to the disunited, amoral, and dependent workings of the practice of the government". This thesis utilises Abrams' conceptualisation of the state-system and studies institutions and actors of the state in practice, and the network of relations in which they exist, through both empirical and secondary data.

Literature grounded in the 'state-system' has shown that the state in practice is a pluralised, networked, and internally differentiated entity (Akhtar, 2025; Bear, 2013; Castells, 2005; Chandhoke, 2003; Cerny, 1997; Harris-White, 2003; Hibou, 2004; Jayal, 1999; Sud, 2017). Here, the pluralisation of the state refers to the decentring of the government's national scale and the proliferation of actors that now share power with it, such as civil society groups, multilateral institutions, and corporations. The 'internal differentiation' of the state refers to the lack of internal cohesion that is generated from its pluralisation, expanding its complexity and making coordination between the different centres of policy-making more difficult (Jayal, 1999). The 'networking' of the state refers to the dynamic linkages and interconnections that the state is embedded in by virtue of sharing power with a plurality of actors (Castells, 2005).

As Brenner (2004) argues, nation-states have been qualitatively transformed with neoliberalism and globalisation, and state power has been reconfigured across its scalar hierarchies—the sub-national scales of the state have assumed greater significance and power, and there is political contestation among the state scales. Furthermore, there is no linear denationalisation of statehood that has taken place; rather, national institutions continue to play key roles in shaping and implementing policies, even as the national scale of the state has been decentred. In other words, the reconfigured state continues to play a role in the 'actually existing neoliberalism' (Brenner & Theodore, 2002).

To clarify, for the purposes of this study, neoliberalism refers to an economic policy agenda that entails privatisation, deregulation, and a 'lean' state machinery that prioritises and promotes greater economic growth generated through capitalist development (Venugopal, 2015). However, it is important to note that neoliberalism alone does not feature as a defining factor in the framework of this study. While neoliberal practices, taken broadly as the set of policies defined above, have taken root in many parts of the world in contemporary times, the 'actually existing neoliberalism' is path-dependent and contextually defined—what exists in practice is 'neoliberalisation', i.e., a process wherein neoliberalism is in constant interaction with social, political, historical, and geographical factors (Castree, 2006).

In practice, the implementation of neoliberal policies has not resulted in self-regulating markets that will produce an optimal allocation of resources. Instead, it has produced uneven development and several market failures necessitating state intervention. In practice, state and market are not diametrical opposites, rather, economic relations as envisaged in neoliberalism are politically constituted through state intervention. In fact, Quinn Slobodian (2018) argues that the neoliberal project is not about unfettering markets as the dominant narrative surrounding neoliberalism goes, but about *encasing* them, protecting markets from the threats, pulls, and pressures of democracy for capitalist accumulation and expansion.

This highlights two aspects of the state's functioning in this context, and in the contemporary moment. One, while old forms of state interventions and roles may have disappeared, they have been replaced by new ones in a process that has been termed the "creative destruction of capitalist territorial organisation" (Brenner & Theodore, 2002, p. 355). For example, while state support for national industries has declined, new forms of

state support for ‘sunrise’ industries has emerged, like the IT industry, which has been a key driver of the smart city idea globally, as discussed in the previous chapter.

Secondly, and relatedly, these new forms of state intervention do not exist in a vacuum but are tied to spaces—the endeavour to encase and inoculate markets against the pressures of democratic politics takes the form of creating sites where capital can find a ‘spatial fix’ for its accumulation and expansion (Harvey, 2001; 2003). David Harvey (2001) refers to this spatial fix in two senses: firstly, it refers to the building of fixed space, such as factories, roads, houses, airports, and railway stations—fixed nodes that are crucial for sustaining both the flows and the system of capitalist production. However, capital also requires a spatial fix in terms of fresh sites or openings for capitalist accumulation to take place. This second pursuit of a spatial fix can take the form of Special Economic Zones, Industrial Corridors, etc., which, though within the geographic territory of a nation-state are governed by a different set of laws and regulations, for the promotion of certain industries.

Moreover, in this context, cities also become “sites for the valorisation of new forms of global corporate capital”, functioning as territorial nodes for the transnational flows of capital (Sassen, 1991, p. 88). They become important targets for neoliberal policy interventions and experimentation, and the city-making project becomes crucial to such state interventions and policy-making (Brenner & Theodore, 2002). With increased economic competitiveness and integration in the globalised era, cities have become deeply embedded in global capital networks, and city governments have become ‘entrepreneurial’, as active facilitators of the strategic interests of capitalist development (Harvey, 1989). The task of urban governance in this context, then, is to create a ‘good local business climate’ in order to attract investment.

This entails a greater reliance on contingent and contextual networks and partnerships, and governance is no longer only top-down (Castells, 2005; Chandhoke, 2003; Jessop, 2002). The national scale of the state has been decentred, and this decentring has resulted in the pluralisation of governance with state power being shared with multiple actors, within and beyond the state, across its scales. This includes 'vertical' power sharing across state scales and 'horizontal' power sharing with actors such as non-governmental agencies, international organisations, and private players (Chandhoke, 2003). In the next sub-section, I discuss this aspect in more detail, particularly exploring the role of management consulting firms and the informal networks of the state. I do so because (a) management consulting firms have had a key role to play in the SCM, and therefore it is important to understand how and why they operate in the networked state, and (b) in postcolonial states, the informalisation of governance plays a key role in state functioning and any discussion of the literature on the state-in-practice would remain woefully incomplete without it.

2.1.1 PLURALISATION OF GOVERNANCE AND BLURRING OF STATE BOUNDARIES

When it comes to governance and public administration, what has fuelled the pluralisation of governance globally is the turn towards New Public Management (NPM). The end of the 20th century saw a historic turn in the macro-level political economy. From a 'welfare state' model premised on a hefty state that is an active (and often the sole) provider of services such as health and education to its citizenry, there was a turn towards the 'minimalist state'. The decline of economic growth that many countries experienced starting from the 1970s led to calls for the trimming of the welfare state, which was seen as inefficient and a drain on resources (Tickell & Peck, 1992).

The state needed to be 'reformed', to be made more 'business-like' so that it ran more effectively. This led to the emergence of NPM in the 1990s, which then became a pervasive school of thought in public administration. Two important tenets of this school of thought were marketisation and corporate management. The first tenet relates to the trimming of state functions as mentioned above. Services that were deemed 'non-essential' for the state to provide were to be privatised and relegated to the private sphere. The services that the state was required to provide needed to be run in a more corporate fashion, with public administrators functioning more like business managers, and citizens becoming clients of their services (Hood, 1991; Keating, 1989; Osborne & Gaebler, 1994).

The NPM ushered in a new formulation of the envisioned dynamic between state-capital-society. I briefly elaborate upon the two classical frameworks within the political economy scholarship that study the relationship between state and capital, as this scholarship is one this chapter, and this thesis pulls from when discussing the changing nature of the state. More broadly, however, it would be beyond the scope of this chapter, and this thesis, to summarise the entirety of scholarly discussion from across the breadth of various disciplines that examine this relationship between state, capital, and society. However, some further references have been footnoted below for the reader's interest.

The two dominant frameworks are the Marxist and liberal ones. From a Marxist perspective, the state serves the interests of capital and is constrained in its operation by the same, although scholarship in this camp has also debated the state's relative autonomy from capital.[7] On the other hand, the liberal perspective argues that the state acts as a

[7] To know more about the Marxist perspective, see Ralph Miliband's (1969) *The State in Capitalist Society* for an instrumental Marxist view on state and capital, and *Political Power and Social Classes* by Nico Poulantzas (1968) for a structural Marxist view. For the Indian context, see *The Political Economy of Development in India* by Pranab Bardhan (1985) and *The Trajectories of the Indian State* by Sudipta Kaviraj (2012).

buffer between competing interests (including those of capital) over limited resources.[8] It upholds individual rights, including the right to property, and facilitates the creation and smooth operation of markets for capital. Theoretically, in a liberal-democratic setup, citizens can make certain valid claims, recognised as rights, on the state. The state is duty-bound to uphold these rights as part of the state-citizen social contract (Feinberg, 1970).[9]

As a product of neoliberal thinking, what the New Public Management school of thought initiated was a reformulation of this state-citizen contract, wherein citizens were no longer claiming services from the state, but receiving or even purchasing them as consumers. Riding this wave of NPM, international management consulting firms turned their eye towards public administrators, and emerged as key private players in state activity, participating in processes ranging from policy formulation to implementation. Governance consulting emerged as a lucrative business avenue, given the scale, scope, and resources of the state.

This is not to say that consulting firms were not involved in state affairs prior to this turn. Mazzucato and Collington (2023) argue that in the aftermath of the Cold War, governments in Europe and North America engaged consultants in matters of defence and Cold War strategy, and then later in the 1960s to revamp systems in public administration, especially through IT. The widespread deployment of consultants in state activity with neoliberalism and the associated growth of NPM, starting roughly from the 1980s, has

---

[8] Liberal thinking on the state has varied over the years. Classical liberal conceptualisations of a laissez-faire state envisioned a minimal state and 'free markets' (Mill, 1848; Smith, 1776). J. M. Keynes' (1936) brought a significant change in this school of thought by advocating for an increased role of the state to support economic growth and facilitate markets. For 20th century neoliberal thinking on the state, see Milton Friedman's (1962) *Capitalism and Freedom*. For more contemporary scholarship that analyses the complexities the state grapples with in the context of globalisation, and its relationship to capital, but all from a more liberal perspective, see: Thomas Piketty's *Capital in the Twenty-First Century* (2014), Mariana Mazzucato's (2013) *The Entrepreneurial State*. For the Indian context, see Devesh Kapur's *The Political Economy of the State (2010)*.

[9] Several critiques of the traditional theorisation of the state-citizen social contract also exist, chiefly stemming from the abstracted and ahistorical liberal conceptualisation of the 'citizen', which seems to be modelled on the white, able-bodied male. Some notable and foundational critiques include Carole Pateman's *The Sexual Contract* (1988) and *The Racial Contract* by Charles W. Mills (1997).

elicited widespread global concern over their accountability and consequences for democracy (Bogdanich & Forsythe, 2022; Hurl & Vogelpohl, 2021; Mazzucato & Collington, 2023; Purandare, 2021; Sami & Anand, 2021; Vogelpohl & Klemp, 2018). In the next sub-section, I discuss this proximity between government and consulting firms further, while discussing the work these firms do.

2.1.2 CONSULTING FIRMS AND POLICY MOBILITIES

In governance, management consultants facilitate 'fast policy'—transporting policy models across the globe through the 'steamroller model of best practices' (Peck & Theodore, 2015). The literature on policy mobilities argues that the proliferation of certain policy ideas and models across the globe occurs deliberately. Popular models like conditional cash transfers or participatory budgeting, or in the case of this thesis, smart cities, do not emerge organically in different contexts, or in isolation— "*People move them around* for particular purposes" (Temenos & McCann, 2013, p. 344; emphasis in original). For instance, Adam Greenfield (2013) squarely places the genesis of the idea of a smart city with IT companies, particularly IBM, CISCO, and Siemens, who used almost identical tropes and language to create a discourse around the smart city, so that they could market their offerings through it, and sell their products to governments and urban practitioners. While this is an example of tech-based consulting, consulting firms providing strategy, accounting services, and more also exist. Below, Table 3 provides an overview of some of the big firms in the management consulting business. In the SCM, the traditionally accounting-based consultancy firms EY, PwC, KPMG, and Deloitte, along with the strategy consulting giant McKinsey & Co., have played a significant role in programme design and implementation. For this reason, these firms will be the ones I refer to when discussing consulting firms in the rest of this thesis.

Table 3: Types of Management Consulting Firms		
Type	Origins and Expertise	Examples
Strategy	1900s-1930s Scientific management and cost accounting (popular management approaches of the period)	McKinsey & Company Boston Consulting Group Bain & Company
Accounting	1960s-1970s Auditing businesses and possessing perceived objectivity and analytical prowess because of audit work	Ernst & Young (EY) Deloitte PricewaterhouseCoopers (PwC) KPMG
IT	1980s-1990s Need for computerisation and connectivity through firm growth	Capgemini Cognizant Cisco IBM Oracle CGI Group
Outsourcing	1990s-2000s Increase in size and scope of public sector contracts	Serco Sodexo Atos ISS
Boutique	2000s-2010s Growth in opportunities for management consulting	Putnam Associates Vivid Economics

Source: Mazzucato & Collington, 2023, p. 19 (adapted)

As fast policy models traverse geographies, they need to be translated to be embedded within domestic contexts. National, State, and even local governments turn to these international management consulting firms, these supposedly neutral and global arbiters of knowledge and expertise, to assist them in formulating plans and policies to apply these global models in their local contexts. As Mazzucato and Collington (2023, p. 58) argue,

> Neoliberal policies may have been designed by academics, states, and financial institutions in the Global North, but consulting firms helped deliver those changes on the ground in the Global South and ensure that the neoliberal transformation of capitalism was global.

It is for this reason that consultants have also been referred to as agents of economic globalisation and financialisation (Boussebaa & Faulconbridge, 2019; Möller, 2021).

One of the chief products of a consultant's labour is to accelerate the working lives of other people. Consultants often get hired to accelerate processes in an office and to increase the staff's speed of work. Felix Stein (2018) argues that in this process, consulting firms commodify speed, and sell it as a product in and of itself. For this reason, consulting firms have played a key role in the workings of the SCM, to bring in their global 'expertise' and assist in the envisioned speed of development and futuristic quality of smart city projects. Speed propels capitalist development, reducing the "friction of distance" (Harvey, 2001, p. 24), but crucially in the case of the smart city, this speed acquires direction, accelerating its associated actors and institutions and placing them within a city of the future. Thus, in this thesis, I interrogate the role that these consulting firms play, examining the strategies they use to embed themselves in the state apparatus and how these firms contribute to the state's internal contestation and temporal spatialisation.

As a clarification, for the purposes of this work, the concern is with the functioning and role of consulting firms as a whole, and not individual consultants. The perceptions that individual consultants have shared with me are used as reflections of the ways these firms function, and the work that they perform. The extent to which these perceptions are informed by personal characteristics and identity is not probed. This is because the analytic focus of this work is not the consulting firms/consultants themselves, but their functioning in relation to the state, and particularly within the SCM. A more

sociological study of the consultants' lives and work is beyond the scope of this project. However, there is a recognition of the fact that when it comes to consultants in India, there is significant caste and class privilege that would play a role in their subjective predispositions and construction of knowledge and expertise, given the elite position these firms occupy and their recruitment processes that draw from elite educational institutions, both in India and abroad. While scholarship that analyses dimensions of caste, class, gender, and educational privilege among consultants in management consulting firms in India specifically is rather limited, scholarship on technocrats in contemporary Indian policy-making, the role of caste in higher education and the framing of expertise and merit, and the cultural politics of middle classes (from which members of professionalised services like consultants are often drawn) remains ample and speaks to these dimensions (Baviskar & Ray, 2011; Deshpande, 2006; Sajjanhar, 2024; Subramanian, 2019).

Returning to our discussion of the state-in-practice, the pluralisation of governance and the networking of the state is what enables the entry of management consultants into the state apparatus. As Neera Chandhoke (2003, p. 2964) argues,

> Politics as the art of negotiating between competing interests has been overtaken by the idea that these interests need to be brought into harmony with each other through the employment of managerial techniques. That is why the concept of governance has often been represented as post-political.

For the state, and especially the national scale of the state, as the subsequent chapters of this thesis will show, the expertise and global networks of these firms is considered crucial to remaining competitive in an era of political and economic globalisation, and responding and adapting to the multi-layered pressures that are continually generated through globalisation (Cerny, 1997).

2.1.3 INFORMAL NETWORKS AND THE 'ACTUALLY EXISTING STATE' IN INDIA

While consulting firms become a part of the formal state apparatus, it is well-documented that in truth the state extends beyond its formal-legal boundaries in its operation and exercise of state functions (Bear, 2013; Hibou, 2004; Sud, 2014; 2017). Some scholars use the analytical term the 'actually existing state' to refer to this (Harriss-White, 2003; Jessop, 2015; Akhtar, 2025). In her study of the local state in rural and small-town India, Barbara Harriss-White (2003) finds that the 'actually existing state' comprises the formal-legal state but also a large 'shadow state' that exists beyond institutional confines and is mediated through informal networks. The shadow state arises from, and exists in conjunction with, the formal state. As she elucidates,

> Some roles in the 'shadow' State are played simultaneously by the bureaucrats of the official State; for instance, accepting tribute, patronage and/or clientelage. Other 'shadow' state livelihoods are a form of self-employment, although they depend on state employees, politicians and other interested social forces for their incomes; for example, private armies enforcing black or corrupt contracts, intermediaries, technical fixers, gate-keepers, adjudicators of disputes, confidants, contractors and consultants (Harriss-White, 2003, p. 89).

Furthering this, Rakib Akhtar (2025) finds that the shadow state is at work across all the scales of the state, and is not merely restricted to the local state, or the informal sector that Harriss-White (2003) studies. Both Akhtar (2025) and Harriss-White (2003) offer a pragmatic notion of the state that is premised on its ground-level implementation of the political and executive functions of the government. While Harriss-White (2003) examines the local state only, Akhtar (2025) adopts a multi-scalar lens and situates the state in the larger macroeconomic process of neoliberalisation, in conjunction with the proliferation of the politico-cultural ideology of Hindutva. However, for both these scholars, their empirical data emerges from rural contexts, and not existing urban spaces,

speaking inadequately to how the 'actually existing state' may function in a city-space and what analytic insights that might generate for scholarship on the state in India.[10]

What the networking and pluralisation of the state, both through and beyond its formal-legal confines, make evident is that state boundaries can no longer be delineated. It is difficult to draw distinct lines between the actors and institutions that constitute state, society, and capitalists. Scholars like Aseema Sinha (2019) and Kuldeep Mathur (2014) suggest that the state has 'blurred boundaries', wherein the porosity of the state has led to permeation by businesses, making a separation between the two fuzzy, with businesses increasingly occupying new policy-making arenas that have opened with the liberalisation of the economy in India (such as Public-Private Partnerships (PPPs)). Thus, businesses have become partners of the state in development activity (Mathur, 2014). Their power has grown from merely being able to veto state policies that were perceived to be anti-business, to being able to set the agenda of these policies and programmes in the first instance (Jaffrelot, Kohli & Murali, 2019). The proliferation of Special Economic Zones or Industrial Corridors, as discussed before, can perhaps be seen as an outcome of this.

With this massive complexity in the working of the state-in-practice, grounding the state in space becomes a meaningful way to pragmatically anchor the state and study it in an empirical way. The literature that studies the spatialisation of the state in India is a rather limited and emergent one, with scholarship highlighting the political contestation within state scales (Kennedy & Sood, 2016; Sud, 2017). This literature studies the spatialisation of the state in geographic space, with this space both containing and being constituted by social, economic, and political life. Scales as mentioned in the previous

[10] While Akhtar (2025) studies the smart city of Dholera, this project is a greenfield one, wherein existing agricultural spaces, presumed to be 'barren' and 'unproductive', were sought to be transformed into an urban space in the image of so-called 'world cities'. Thus, his study is located in 22 villages in the State of Gujarat that have been pooled together for the creation of Dholera Smart City.

chapter, refer to geographic hierarchies that are dynamic, nested, interacting, and produced through political contestations over space (Brenner, 2004; 2019; Gallaher, 2009; Rogers et al., 2013; Sud, 2017).

However, scholarship has shown that space is not just constituted geographically, but also co-constituted temporally (Addie et al., 2024; Datta, 2017; 2024; Kitchin, 2019; 2023; 2024; May & Thrift, 2001; Lefebvre, 1974). Thus, there exists scope for extending literature that studies the spatialisation of the state by situating it in temporal space as well. Moreover, any grounded study of the state and its drive to create these futuristic smart cities must be situated in an examination of how space is produced through time as well. In the next section, I explore this further.

2.2 TIME, SPACE, AND SMART CITIES

As briefly discussed in the introductory chapter, the notion of temporality, as used throughout this thesis, is linked to time, and invariably to space. In his foundational work, *The Production of Space* (1974), Henri Lefebvre argued that space is dynamic and socially constructed by human activities, relations, and structures of power. He further argued that time is an inherent aspect of this construction of space. Time is not a unified or linear entity, but is instead an ordering of events (Rovelli, 2019). Events occur within a geographic space, but any perception of their occurrence is also determined through an ordering—then, now, later—which is contextual, and contingent upon a sense of temporality. Thus, the space produced via human activities, relations, and flows of power is not just across a geographic ordering of spatial scales, but across temporal orderings as well. In this thesis, I use the concept of time as an ordering of events, using it in its physical sense (as also mentioned in Chapter 1). Furthermore, I also use time, and its associated notions of temporality, in their experiential sense—that is, in the way that they are felt and perceived.

For example, Ghertner's (2017) work 'When is the State?' looks at the role of time in the exercise of state authority, and how this is experienced by citizens, emphasising the timing of political (electoral) cycles in Delhi. Similarly, Rob Kitchin (2023) argues that temporality is not fixed or absolute, but rather is socially produced and experienced, referring to three forms of time: 'conceived time' that is produced through tools which structure time, like calendars and timetables, 'perceived time', which is individuals' cognitive and sensory grasp of time, and 'lived time', referring to time as it is socially practiced (Leong et al., 2009, as cited in Kitchin, 2023, p. 5). These three forms of time map onto Lefebvre's (1974) triad of spatiality: conceived, perceived, and lived space. Kitchin (2023) further argues that digital technologies have fundamentally altered our experience and conception of time by facilitating immediacy and flexibility and promoting 'networked time' over 'clock time', the former referring to time that does not follow traditional time sequences like the latter does. An example of networked time would be a stock market trader sitting in India but trading on a stock exchange in Australia—their daily rhythm, from waking hours to sleeping hours, would function in an Australian time zone despite their being physically located in India. Clock time, on the other hand, is tied to the clocks of a particular physical space and follows a linear order. Mediated through technologies, institutions, and contextual cultural practices, temporalities are plural, contingent, and performed within daily life and institutional systems.

Past, present, and future are entangled, producing multiple temporal states. In modern, capitalist societies this has been significantly shaped by abstracting the future, distancing and disembodying it from history, perpetuating a notion of the future that is empty and always 'open', rife with possibility. However, as Barbara Adam (2008, p. 114-15) argues, the "future is anything but open". On the contrary, the future is a temporal

space that is crowded—it is shaped by the "actualised desires, hopes, and fears of previous generations". Casting the future as an empty and blank canvas veils deep power inequalities amongst voices which determine which people's and places' histories are erased and which are articulated to create these 'open' futures of endless possibility. This is in stark contrast to pre-modern ideas of the future, which were embedded in "cosmic, social, and moral systems" and tied to ideas of fate, astrology, and the like (Adam & Groves, 2007, p. 6-9). Modern stances do not just view the future as open but seek to create and shape these futures by quantifying, categorising, monetising, and colonising them in a manner devoid of any ethical responsibilities or foresight of the fact that these constructed futures will be someone else's lived present (Adam & Groves, 2007). A strange concoction of history, memory, anticipation, and immediacy go into shaping present temporal states, with Adam and Groves (2007) identifying four kinds of entangled temporal states:

- Past present: a present informed by history and memory,
- Present present: a present operating with the real-time immediacy facilitated by digital technologies,
- Present future: a future that is projected from the 'now',
- Future present: an anticipated future that is imagined in the present.

In this thesis, I extend and build upon Adam and Groves' (2007) work on entangled temporal states. While they analyse multiple presents, I analyse multiple futurisms by interrogating the futurity associated with smart cities in the SCM. I study these entangled future temporal states as mediated by institutions and actors involved in the programme, especially in Pune. As also mentioned in the previous chapter, my conceptualisation of a 'Present-Future' of the smart city is akin to Adam and Groves'

(2007) conceptualisation as explained above. However, my conceptualisations of a 'Past-Future' and 'Future-Future' build upon that and are distinct.

The Past-Future refers to a future of the smart city that is conceived through the legacies of the past, such as postcolonial developmentalism, in a bid to overcome the underdevelopment created through the colonial past. It is mediated through memory, legacies, and the act of remembering—all of which enable the conceptualisation of this Past-Future. The Future-Future, on the other hand, is the abstracted notion of a smart city that is perpetually set in the future, seemingly untethered to the past or present. It is not necessarily founded upon anticipation, memory, and neither is it necessarily sought to be connected to the present. It is more an exercise in imagination and creating a vision of the future of the smart city. While this abstracted vision is conceived in the present and in reference to the present, it is not rooted in the present conceptually. In this, it is distinct both from the Present-Future which seeks to project and plan a future for present-day needs, and from Adam and Groves' (2007) 'future present' which envisions a pre-figured future that is being accessed in the present, such as through divination and prophecy-making. The 'Future-Future' of the smart city is rooted in the future perpetually, and that in itself serves a purpose—to create greater temporal space for capital's expansion, as Chapters 4 and 5 of this thesis will show.

Returning for now, however, to how ideas of an abstracted and disembodied future connect to urbanism, Ayona Datta (2017) argues that they provide an ideal temporal ground for the construction of 'fast cities' by entrepreneurial states in the Global South. As she states in her introduction to the book *Fast Cities in an Urban Age*:

> We examine new cities as a mode of temporality that is striving continuously to establish a universal language for the future, to stand for postcolonial urbanism as a rejection of its historical connection to colonial urban planning. We understand fast cities as a form of postcoloniality that is deeply counter-historical, or in other

> words, a performative strategy refusing to embody the burden of the past (Datta, 2017, p. 6).

This "performative strategy", as mentioned in the quote above, is enabled through the creation of an abstracted future. In attempting to perform the future in the present, imaginaries not only shape the practices surrounding planning, development, and the use of infrastructure, but they "also define and enact a claim on the city and its future" (Addie et al., 2024, p. 7). Further, a preoccupation with leapfrogging into the future with speed is now a persistent characteristic of city-making in the Global South, and Datta (2017) argues that this is driven by the state far more than it was in the past. Earlier 'company towns' such as Bokaro and Jamshedpur in India were historically associated with the industrialists' vision of providing their workers housing and welfare—these city-making projects were muted in speed and scale. However, the fast cities that we see now are much more aggressively promoted through the policies, laws, regulations, and advertisements of an entrepreneurial state. Thus, it becomes that much more imperative to examine the workings of the state in creating fast cities, and to analyse how the state is itself getting restructured in turn. In the subsequent chapters, I do exactly this, by analysing the state in the context of the implementation of the SCM—a smart city being a kind of 'fast city' idea that has become prevalent in urban planning and governance discourse. I also bring in more layers and nuance this analysis by opening up the unified conception of an 'entrepreneurial state' and examining its pluralisation, internal differentiation, and contestation.

The temporal dimension of smart cities is also explored in Kitchin's (2019) work, wherein he conceptualises smart cities as 'space-time machines' and explores their 'timescapes'—i.e., the interwoven temporalities (e.g., rhythm, pace, duration, sequencing) that produce a temporal landscape which frames how smart urbanism is produced,

experienced, and governed. Kitchin (2019) proposes that smart cities are not just spatial transformations enabled by digital technologies but also represent complex temporal reconfigurations. He draws on Adam's (2004) concept of 'timescapes' and the work of Castells (1996) and Giddens (1984) to explain how time is experienced and organised differently through smart technologies. Drawing on the city of Dublin as an example, he argues that (a) smart cities facilitate time-space convergence with communication and travel time shrinking due to technological innovations, and (b) that they also promote time-space distanciation at the same time. This distanciation takes the form of urban governance and services being disembedded from local timeframes and being centralised instead, such as through smart traffic systems that are controlled through centralised, 'real-time' data repositories. Kitchin argues that these temporal configurations constituted through the smart city are not neutral—temporal planning often privileges optimisation and anticipation over reflection, care, and inclusivity.

The 'testbed labs' or 'living labs' of the smart city are always in a prototype mode, attempting to perpetually create futures that are on their way (Poli, 2015, as cited in Kitchin, 2019, p. 785). This process is a form of "temporal management that aims to anticipate and respond to the present and future impending threats but in a manner that consistently defers a definitive answer". This creates a "pre-emptive hope"—a sense that a deeply uncertain political, economic, and environmental future is being tackled (Halpern & Günel, 2017, as cited in Kitchin, 2019, p. 785). This proposition of fast cities being the solution to multiple crises and challenges of development is exhibited in countries of the Global South as well (through policy mobilities, as discussed in the previous section). Speed emerges as a prerequisite that legitimises fast cities as a solution to crises emerging through migration, climate change, and urbanisation (Datta, 2017). This emphasis on speed produces not only a rhetoric of urgency, but also a "range of visions, imageries, and

fantasies of time-space compression" (Datta, 2017, p. 3). Thus, fast cities, like smart cities, represent a new form of utopia in which speed, planning, and technology are combined to produce a utopic response to ongoing crises. In turn, the execution of these ideas of fast utopias ends up reconfiguring the timescapes of cities.

In the case of smart cities in India, the fast utopia that is imagined produces a spatial temporality of its own within the city. Ayona Datta (2024) explores this spatial temporality in the smart city of Shimla in Himachal Pradesh, under the SCM, and proposes the insightful concept of 'distant time'. Distant time, she argues, is a tool of statecraft that uses a combination of space and time to produce a marginality that keeps citizens already at the margins at a governable distance from the state. Shimla is a hill city, was the summer capital of the British Empire, and has a historic spatial divide between the top and bottom of the hill. The bottom of the hill housed working classes and migrant workers engaged in informal labour, and this continues to the present. The top of the hill, on the other hand, housed more affluent classes and with the SCM, has become the site of smart city projects' concentration. Datta (2024) traces this continuity of inequality from the colonial past to the present, which the SCM seeks to reproduce in the future. She argues that while geographically contiguous, the bottom and the top of the hill occupy different temporalities. The bottom is backward and disorganised, and the top occupies a space of modernity and progress. In this way, Datta argues that time is spatialised to reproduce marginality. She further argues that this exercise in marginalisation is contested and resisted by the 'natives'.

Crucially, however, as Datta's (2024) analytic focus is on the state's exercise of temporal power in relation to its reproduction of marginality amongst citizens, the exercise of temporal power within the state, or how the state itself straddles temporal

space, is not fully explored. Statecraft itself is taken as unified practice, which as the existing literature on the state-in-practice previously discussed demonstrates, is not the case. In a similar vein, Kitchin (2024, p. 4) argues that "the politics, policies, and statecraft enacted at these varying scales produces multi-scalar temporalities that stretch from the local to global, with temporal power located at different levels". Furthermore, he also concedes that this multi-scalar temporality within the state is understudied is yet to be fully developed. In the next section, I briefly elaborate upon how I propose to conceptually fill this gap through this thesis.

2.3 STATE IN TEMPORAL SPACE

In this thesis, I bridge the gap identified above by empirically studying the state-in-practice in the context of the SCM more broadly, and the smart city of Pune more specifically. In doing so, I bring these two large bodies of literature discussed in sections 2.1 and 2.2 and put them into conversation with each other using the unifying analytical tool of the 'state in temporal space'. For instance, in this thesis, I utilise Datta's (2024) concept of 'distant time' as described in the previous section to study the temporal exercise of power within an internally differentiated and contested state. Furthermore, I draw from Adam and Groves' (2007) work on entangled temporal states in which they identify multiple presents, to identify multiple futures of the smart city—its Present-Future, Past-Future, and Future-Future.

As an example, as the subsequent empirical chapters of this thesis will demonstrate, while for consulting firms, the future of the smart city exists in a perpetual future, for the national state the future of the smart city is conceived through legacies of the past, through the colonial history of underdevelopment and the postcolonial developmental state. Thus, importantly, these multiple futurisms are envisioned by

multiple actors and institutions of the state-in-practice. Finally, notions of temporal configurations that inform works in policy mobilities, on fast cities, on timescapes—all detailed in the previous sections—form the threads that weave the temporal space in which I situate the state-in-practice and its workings in.

In the chapters that follow, I examine and explore various aspects of the state's operation in temporal space, alongside their implications for urban development. So far, I have discussed the literature that forms the theoretical framework for this thesis. I now turn to discussing the scholarship that informs the context for this project, i.e., the literature on state restructuring after the 1991 economic reforms and situate the emergence of the SCM within it. Following that, I close by elaborating on this thesis' contribution to the literature I have explored through the course of this chapter.

2.4 STATE RESTRUCTURING AND SMART CITIES IN INDIA

The turn in the macro-level political economy that led to state restructuring in Western countries (briefly discussed earlier in this chapter), also influenced the political economy and state functioning in India. The 'LPG reforms' (liberalisation, privatisation, globalisation) in 1991 led to the full-scale institutionalisation of neoliberalism in the country. Prior to these reforms, the post-independence Indian economy was characterised as a '*dirigisme*' (state-led development) regime, or as Elizabeth Chatterjee (2017) calls it, "State Capitalism 1.0". During this phase, economic development in the country was state-led. The economy was centrally planned, regulated, and controlled; the private sector was small, and dominated by a handful of powerful and influential business groups. Power was concentrated at the national scale of the state, and a 'developmental ideology' was part of the postcolonial state's self-definition. As the postcolonial state came into existence post the overthrow of an exploitative colonial state that had fostered centuries of

underdevelopment, the aforementioned ‘developmental ideology’ provided a rationale for the postcolonial state’s existence, and served as a source of legitimacy.

For this state, “the very institution of a process of planning became a means for the determination of priorities on behalf of the ‘nation’” (Chatterjee, 1994, p. 245). Planning became the modality through which the material allocation of productive resources within the nation would take place, and it was cast as an apolitical endeavour. Development was conceived as following a linear trajectory, and the goal of planning was to pursue this by following a ‘rational’ trajectory to achieve these ‘universal’ goals. Thus, Chatterjee (1994) argues that with the postcolonial state’s constitution of planning as a domain outside of the contestation of politics, planning became an instrument of politics for it allowed the assertion of certain interests and voices over others. In other words, this paved the way for using depoliticisation as a political tool in itself, something that the empirical chapters of this thesis will show is evident in the operation of the SCM as well.

In the execution of these nationally formulated policies, however, the Indian state was constrained by the articulated interests of the dominant classes composed of rich farmers, industrial capitalists, and techno-managerial professionals (Bardhan, 1985). Thus, politics played a role in the concrete form that ideas encoded in planning directives took, wherein the public economy became a network of subsidies and patronage in which “the heterogenous, proprietary classes fight and bargain for their share in the spoils of the system and often strike compromises in the form of ‘log-rolling’ in the usual fashion of pressure-group politics” (Bardhan, 1985, p. 65-66).

This postcolonial state underwent significant restructuring after the 1991 economic reforms. The move towards these reforms was not sudden: the economy had begun liberalising from the 1980s, under the leadership of the then Prime Minister Rajiv Gandhi.

Ultimately, a combination of economic factors such as the increasing fiscal deficit and severe balance of payments crisis, as well as political factors such as lobbying from elements of the government, business classes, and the Bretton Woods institutions for structural reform, culminated in the adoption of the LPG reforms (Maiorano, 2016). The greater push towards neoliberal restructuring by transnational policy networks and international financial institutions required a 'lean' state, the decentralisation of state power, along with the promotion of the private sector in the belief that it would lead to efficient, democratic, and accountable 'good governance' (Brenner, 2004; Goldman, 2011; Harvey, 1989; Leftwich, 1994).

These reforms restructured India's political economy in a way that substantially increased the structural power that businesses exercise (Maiorano, 2016; Mazumdar, 2008; Murali, 2019). Here, structural power refers to the power that business has owing to the pattern of interrelationships that are generated between state, society, and business in a capitalist system. Businesses generate capital and invest it in the economy, and consequently, are key in determining the economic growth of the territory being governed by the state (Lindblom, 1977; Murali, 2019). In the Indian context, scholarship has also debated whether the state is "pro-business" or "market-friendly" (Bardhan, 1985; Chatterjee, 2017; Kohli, 2006a; 2006b; 2009; Mazumdar, 2008; Rodrik & Subramanian, 2004; Sud, 2009; 2014). In a pro-business setup, the state is engaged in a narrow alliance with business—its policies favouring a few commercial and industrial establishments. In a market-friendly setup, the state facilitates the expansion of markets in the economy, through policies of economic liberalisation (Rodrik & Subramanian, 2004; Sud, 2014).

In the period following economic liberalisation, the primacy of State and local governments also increased in both the political and economic life of India. Shortly after the LPG reforms, the *73rd* and *74th Amendment Acts* were enacted in 1992, formally

devolving power to local governments in rural and urban areas respectively.[11] The 1990s also witnessed the strengthening of a regional capitalist class that had started emerging in the 1980s based on gains made through the Green Revolution (Baru, 2021).[12] The agrarian growth experienced through the Green Revolution allowed for the accumulation of capital in farming and agro-processing and gave rise to a new rich class, especially in states like Gujarat, Maharashtra, Punjab, Haryana, Karnataka, and Tamil Nadu. This regional capitalist class sought to secure political power by supporting regional political parties and their election to State legislatures. With the support of their respective State governments, they started entering into collaborations with foreign investors to gain leverage over national big business (Baru, 2000).

In Maharashtra, the Green Revolution resulted in a boom in sugarcane production, especially in western Maharashtra. Regional caste groups, especially the Marathas, captured and mediated the state's water-seed-fertiliser subsidies, leading to their disproportionate utilisation in and benefit to that region as opposed to the eastern parts of the state. Utilising caste networks, these newly powerful peasant groups organised themselves politically and economically, forming an agrarian lobby from the 1970s onwards, made up of sugar elites (Deshpande & Palshikar, 2016). The surplus generated through sugarcane cultivation was also channelled into businesses, especially the real

---

[11] The *73rd Amendment Act*, *1992* (also known as the *Panchayat Act*) and the *74th Amendment Act, 1992* (also known as the *Nagarpalika Act*) gave a constitutional status to rural and urban local bodies in India respectively, formally creating a 'third tier' of federal government in India. They conferred upon these local governance bodies new functions, powers, and responsibilities. For urban local bodies, these 18 functions have been listed in Schedule XII of the Constitution. They include urban planning, regulation of land use and construction of buildings, slum improvement and development, construction of roads and bridges, provision of urban amenities and planning for social and economic development.

[12] The Green Revolution connotes a period beginning from the 1960s that saw a substantive transformation of agriculture in India. It saw the introduction of high-yielding variety seeds, mechanised farm tools, pesticides and insecticides, among other things. For more information about the Green Revolution and its consequences for agrarian and rural development in India, see: *India's Green Revolution: Economic Gains and Political Costs* by Francine Frankel (1971), *Postcolonial Developments: Agriculture in the Making of Modern India* by Akhil Gupta (1998), *The Political Economy of Development in India* by Pranab Bardhan (1985), and *Green Revolution and After: 'The North Arcot Papers' And Long-Term Studies of the Political Economy of Rural Development in South India* by Barbara Harriss-White and John Harriss (2007).

estate business, with former sugarcane growers also serving as shareholders in these real estate companies (Balakrishnan, 2019). Unsurprisingly, after liberalisation, the Mumbai-Pune-Nasik region was promoted as the 'Golden Triangle' for economic growth within the state, and the first concrete, six-lane expressway in the country was built between Mumbai and Pune, becoming operational in 2002 (Shekhawat, 2025). This road remains one of the busiest in the country to date, and is central to the Mumbai-Pune Industrial Region. Several of the real estate companies referred to earlier have been involved in developing (and indeed continue to develop) townships and other infrastructure projects along this corridor (Balakrishnan, 2019).

In this way, the period following liberalisation saw an increased role of business in India's policy-making and development landscape along with a decreased primacy of the national scale of the state as the pivot around which India's political and economic life was being structured. Political decentralisation also clearly assigned powers and functions to local governments. The neoliberal restructuring of India's economy also led to an increased focus on urban areas, which became the target of development initiatives—cities were seen (and continue to be seen) as fertile grounds for attracting investment from globalised capital by partnering with and responding to the needs of the market and furthering the strategic interests of subnational political elites (Kennedy, 2017; Sud, 2017).

Prior to decentralisation, the Central government was the apex authority responsible for most urban policy and planning, even though urban development fell under the purview of State governments (Sircar, 2017). Post-independence, there was also an anti-local bias in postcolonial leaders: there was a belief that the centralisation of power was essential for democratisation and nation-building, and that an increased devolution of power to local governments would strengthen communal/sectarian forces

(Weinstein, Sami & Shatkin, 2014). Therefore, municipal governments were never adequately empowered. This is reflected in the Centre's five-year plans from the 1960s onwards and in urban policy documents of the present Central government, where the poor capacity and functioning of urban local bodies are repeatedly flagged as impediments to effective urban governance and policy (NITI Aayog, 2021). As municipal governments were deemed poor and ineffective, more and more parastatal bodies were created and given the power and authority to oversee urban development (Goldman, 2011). This led to a further fragmentation of political power in the realm of urban governance amongst various statal and parastatal agencies, to 'under-governance', and contributed to the rise in networks of informalisation in the governance of India's cities (Roy, 2009; Weinstein et al., 2014).

It is in this fragmented governance landscape that cities continue to be seen as a critical growth driver for the Indian economy (Ministry of Urban Development, as cited in Sircar, 2017), and the infusion of capital from abroad is seen as not only being symbolic and indicative of growth and prosperity, but as an effacement of India's colonial history of subjugation and underdevelopment (Kaur, 2020). Cities have "captured the imagination of both the state and the private corporate sector as the most important engine of national growth and development" (Gooptu, 2016, p. 216), and are 'branded' in a way that attracts the biggest players with the most money (Kaur, 2020; Mahadevia, 2011). Consequently, urban local governments have found themselves increasingly interacting with the private sector, in a way that never happened before, and in an entrepreneurial model that has been mandated from the top down. ULBs are encouraged to bid for international loans or grants, or to tap into capital markets to finance themselves (Goldman, 2011). This impetus towards urban entrepreneurialism is evidenced through urban development schemes sponsored by the Central government starting from the 2000s, such as the Jawaharlal

Nehru National Urban Renewal Mission (JNNURM) and the focus of this thesis—the Smart Cities Mission (SCM).

The JNNURM was started in 2005 and was discontinued in 2014. In 2015, the SCM was initiated instead, borrowing some of the programmatic features of its predecessor, but with significant differences in its operation. Both programmes aimed to reorient Indian cities as 'growth engines', conducive to private capital investment and market-driven development. Both schemes also aimed to deploy public-private-partnerships (PPPs) to develop core urban infrastructure (Priyadarshi, 2018). These PPPs are entrepreneurial because they are speculative in nature—there is an element of unpredictability as to which kind of neoliberal intervention will succeed in furthering capitalist development, and which will not (Harvey, 1989). In many cases it translates into the public sector taking the speculative risk, while the private sector enjoys the benefits—a characteristic feature of an entrepreneurial state (Mazzucato, 2013). However, the role that the private sector plays in municipal governance, and its accountability, remains undefined and unclear (Ghosh, 2005).

A key difference is that while projects under the JNNURM covered the entirety of a city, the SCM has a focus on area-based development, with 75% of projects being implemented in designated 'lighthouse' areas. Secondly, the JNNURM aimed at promoting 'reform' in municipal corporations and local governance, and much of the Central government funding was contingent upon that. But, in the SCM, the local corporation is sought to be bypassed altogether, and the SPV is responsible for formulating and implementing the smart city projects instead. Both programmes take an ahistorical and apolitical approach to urban development, not factoring in contextual, historical antecedents to local governance in existing cities, and designing supposedly neutral and rational agendas, similar to the Planning Era of the Indian state, mentioned in

Chapter 1. However, as Lorraine Kennedy and Ashima Sood (2016) argue, "the slate is never clean"—existing patterns of socio-political relations and legacies of mobilisation shape the reception of top-down directives.

Furthermore, actors at the local level do not mechanically execute directives—their execution is reflective of the larger processes of urbanisation that they are embedded in (Shatkin, 2008). So, while the Central government is creating and sponsoring urban development schemes that are premised on the PPP model, and State governments are adopting an entrepreneurial stance to attract businesses and their investment for their cities, the actual landscape of urban development remains complex and contested, with municipal, State, and parastatal officials working at the frontlines to create their own coalitions of power in the process of the actual implementation of top-down mandates (Goldman, 2011; Sami, 2012). These coalitions are comprised of the state collaborating with local business elites, professionals from consultancies and international finance institutions (IFIs), international non-governmental organisations (NGOs), and local elites to shape the urban transformations that are currently being witnessed.

So far, this chapter has set up the analytical and contextual framework for this project by discussing the literature on the restructuring of the state with neoliberalism and globalisation, its manifestation in India, particularly at the local level, and in the realm of urban governance. As mentioned briefly above, the Smart Cities Mission is an example of the changed role and functioning of the state, and the push towards urban entrepreneurialism. Its genesis is not an isolated phenomenon, but is intrinsic to the social, political, and economic changes that have taken place in the post-1991 era (Roy & Chatterji, 2020). Not only its entrepreneurial agenda, but the very implementation of the SCM has been facilitated by state restructuring after 1991. The increasing role businesses play in in political institutions, greater involvement of the private sector and transnational

policy networks in governance, and emphasis on creating market-friendly institutions and spaces for capitalist expansion have all played a part in state restructuring.

However, there are two distinctive aspects of the current moment, and the SCM particularly. One is the vision and aspiration of 'worlding' cities to attract global capital and promote economic growth and national prestige in the international sphere through the envisioned prosperity from the 'worlding'. Cities embody nationalist ambitions of wealth, power, and recognition. Therefore, there is enormous political and economic investment in cities as they become sites for countries' claims to global significance (Ong, 2011). Two, the SCM emphasises a high speed of development and fast-tracking into the future in a way that previous development programmes have not. The worlding aspirations of the SCM hinge upon the nebulous notions of futurity in-built into the idea of the smart city. They are a part of 'elite dreaming' (Ong, 2011) and the "nation-building aspirations of policy elites who sought to capitalise on the success of the IT services industry in the global business process outsourcing market" (Roy & Chatterji, 2020, p. 110). This, in turn, is an outcome of India's colonial past, histories of underdevelopment, and legacies of the postcolonial developmental state. But why is there an emphasis on futurity in the smart city? What does situating the state-in-practice in temporal space through the smart city tell us about its workings in the contemporary moment? What implications does that have for development, planning, and urban governance? Existing literature speaks inadequately to these concerns, as I have shown throughout this chapter. I seek to build upon the literature discussed thus far and address some of these questions and concerns. In the next section, I set forth the purpose of this thesis, alongside its contribution to scholarship.

2.5 BUILDING BRIDGES: THIS THESIS' CONTRIBUTION

While there is a significant volume of scholarship that studies the state-in-practice, especially in the context of India, and ample literature on the Smart Cities Mission, and the JNNURM previously, a key analytic lens that is used throughout is the restructuring of the state through neoliberalism. Even scholarship that studies urban development in India in a grounded, empirical way utilises the 'actually existing neoliberalism' framework to analyse these programmes (Akhtar, 2025; Priyadarshi, 2018; Purandare, 2021). I build upon this scholarship, but also move away from existing analyses by deploying the lens of temporality and temporal space while investigating the case of the Pune smart city.

The purpose of this thesis is to bridge the gap between the two bodies of literature discussed in my theoretical framework, namely the state-in-practice and temporal geographies, and examine, through the workings of the Pune SCM, how the state not only operates in temporal space, but how this shapes governance and development in the city. In doing so, I bring the insights of political economy and political sociology into political geography, opening up and further nuancing the category of 'state'. I extend Datta's (2024) notion of 'distant time', analysing through my data how temporal power is exercised within this pluralised and internally differentiated state to (re)produce the marginal position urban local bodies occupy in governance, and how this exercise is actively contested and subverted, as evidenced in Pune.

Existing scholarship on the SCM in India that utilises the analytic lens of neoliberalism highlights the elite-centric nature of the programme, the lack of consensus on what is meant by a 'smart city', and the depoliticising tendencies built into the programme through the deployment of the SPV (Basu, 2019; Kopardekar, 2019; Purandare, 2021; Prasad & Alizadeh, 2021; Prasad et al., 2022; Smith et al., 2019; Taraporevala, 2018). The logic of anticipation that is inherent to smart city imaginaries

and fantasies is not wholly explored in this literature. Smart city imaginaries also vary by the actors and institutions involved—the global imaginaries of the smart city that are peddled by technology and management consulting firms would differ from national and provincial constructions of smartness and a smart city (White, 2016). In other words, the future of the smart city is plural, contested, and interwoven with other temporal states. How and why are these different imaginaries of the futuristic smart city constructed? What implications do they hold for the timescapes of the cities in which they are enacted?

In this way, I empirically explore and analyse the multiple, entangled temporal states in which both the smart city and the state-in-practice exist. Understanding these entanglements serves to provide better insight into the way development is thought of and governance is understood. The existence of cross-cutting spatio-temporalities not only influences the motivations of state actors and institutions, but also their interactions with each other, with ('smart' and 'unsmart') citizens, and how city-spaces end up being created. Through the rest of this thesis, I aim to generate a more granular picture of the same, and I analyse its implications and scope for further research in the concluding chapter. Thus, in many ways, this research project holds significance for understanding urban governance in the Global South, a better appreciation of the complex workings of postcolonial states, and a grounded picture of urbanisation in India, and Asia more broadly. In the next chapter, following the research questions introduced in Chapter 1, I discuss the research design and methods I adopted. I also detail the ethical considerations that were involved in carrying out fieldwork and my own positionality as a researcher. In the chapters following that, I detail and analyse the empirical data I gathered through fieldwork in Pune.

CHAPTER 3: RESEARCH METHODOLOGY

A lot has already been considered, critiqued, and commented upon when it comes to the workings of the Smart Cities Mission in India since 2015. The programme was heavily popularised in the media at the time it was started, with a lot of hope, aspiration, and ambition imbued into the idea and potential of smart cities. Media interest in the SCM has since largely declined, especially given that the implementation of the programme has turned out to be far from what was envisioned, despite heavy monetary spending by the government on the same. As a consultant working at the National Institute of Urban Affairs (NIUA)[13] remarked to me, "I had gone for a review by the Finance Ministry of the SCM, and they had said, *'Aap story nahi bata paaye hain SCM ki* [You have not been able to tell us the story of the SCM]'" (Interview with Rishabh,[14] Consultant, NIUA, 29/03/23).

It is not the case that the story of the SCM does not exist, the narrative is perhaps just not a self-evident and straightforward one. The complex, seemingly incoherent, and incomplete implementation of the programme with the plethora of actors and agencies involved tells a story in itself. Observing and analysing the smart city and the state-in-practice, as situated in temporal space, offers a unique window into understanding processes of urbanisation and the ongoing qualitative transformation of the state in India. In this thesis, I piece together this under-explored story of the SCM, by investigating the futurism of the smart city, particularly by studying the case of the Pune SCM.

In the previous chapter, I discussed the literature that forms the analytical framework for this thesis. Two large bodies of literature form the framework for this project. The first is scholarship that studies the state-in-practice and examines how it is a

[13] Refer to Figure 3 in Chapter 1 for the agencies involved in the implementation of the SCM.
[14] As stated in footnote 5 in Chapter 1 (p. 48), all names used are pseudonyms, unless mentioned otherwise.

pluralised, networked, and internally differentiated entity that has been restructured with processes of globalisation and neoliberalisation. The second body of literature is one that studies the dimension of temporality in urban spaces, and in smart cities specifically. My work is also informed by scholarship in urban studies, particularly on the making of world cities in Asia and the speculative urban development that it promotes. These bodies of scholarship shaped my research objectives, sharpened my research questions, and consequently, informed my research design and methods.

In this chapter, I provide an account of how this thesis evolved methodologically. I begin by detailing the research design that frames this research project in section 3.1, which in turn guided my fieldwork. I restate my research questions, and the fieldwork process I undertook to collect my empirical data. In section 3.2, I elaborate on the research methods used, with a focus on the sources of data used and the tools and processes deployed for their analysis. Following that, in section 3.3, I discuss the key methodological and ethical considerations that were involved in carrying out fieldwork and collecting data for this project. I conclude in section 3.4 by offering a brief discussion of the limitations of my methodology, given the wisdom of hindsight.

3.1 RESEARCH DESIGN

I started my research with a wide reading of literature on the state-in-practice, urban entrepreneurialism, and smart cities. I also read scholarship on the workings of the SCM in India since its roll-out in 2015. The programme is a culmination of the urban entrepreneurial drive observable within state and governance in India, and the programme envisages heavy private sector involvement in both formulating and implementing projects. This led to my exploring existing scholarship within urban studies that looks at speculative urbanisation and the aspirational element in world-city making, which

informed and refined my work. I decided to use the lens of the SCM to study the ongoing qualitative transformations in the state-in-practice in India.

I chose to use a qualitative case study method to study one of the cities under the SCM to capture the granularities of the processes being studied. Case studies generate context-dependent information and a wealth of details which are important for obtaining a view of reality that is nuanced. In the realm of social scientific inquiry, this context-dependent information is of profound value, for there exist no abstract universals. As Bent Flyvberg (2001, p. 73) notes, "Predictive theories and universals cannot be found in the study of human affairs". Case studies produce insights based on concrete experiences, through their continued proximity to reality. In a project that seeks to study the SCM and the state-in-practice in a grounded way, the case study method offered the most appropriate avenue to doing so.

I chose Pune as my case and my field site, one of the first cities to have been selected under the SCM and began my fieldwork there in September 2022. As also detailed in Chapter 1, I surmised that with the SCM's entrepreneurial vision and futurism, the SPV structure of programme implementation, and Pune's own history of a growing IT industry after the 1991 economic reforms would make the city a ripe site for studying 'smartness', and exploring what that says about urban governance and the workings of the state in the contemporary moment. At the beginning of my fieldwork, I did not intend to centre my research project around the internal contestation within the state. Instead, I planned to spend a few weeks in the field to narrow down on a particular project or urban development sector where I could observe and study an SCM project that has been or was being implemented. With Pune's strong IT industry and the SCM's ICT component, I expected to encounter projects and public-private partnerships involving the use of digital technologies. I expected for the Pune SPV, with its emphasis on being a 'lean'

organisation that is driven by expertise and collaborations with the private sector, to have numerous projects that it had implemented in the city, from sanitation to transportation. The Pune SCM's website mentioned the same, and a lot of news coverage around the Pune SCM from my preliminary research seemed to be around Pune being a 'success' story of the SCM. I intended to analyse the smartness of the city, and through that, the state-in-practice (with its PPPs and SPVs) by grounding the research in a specific project or sector where I would collect empirical data.

However, after my arrival in Pune, and a few interviews down the line, what I quickly realised was that everyone kept directing me to a particular smart road in Aundh that was the SCM's pilot project in the city. Beyond that, the smart city was nowhere to be seen. While digital architecture has been put into place in the city through this programme, most evident through the Integrated Command and Control Centre (ICCC; also mentioned in Chapter 1), private participation in the installation of this digital architecture was rather limited—confined to the past, to the initial stages of the programme, and almost negligible at the time of my fieldwork. For the ICCC, the multi-national conglomerate Larsen & Toubro had initially provided the smart elements such as emergency call boxes and public Wi-Fi units. After setting everything up, they had completely handed it over to the Pune SPV, which owned the data centre at the time of my fieldwork. Larsen & Toubro continue to provide the technology powering the ICCC and have an Operation and Management Contract with the SPV for the same (Interview with Kartik, Chief Knowledge Officer, PSCDCL, 7/9/22). However, the proliferation and uptake of the smart elements by citizens and the local municipal corporation remained rather limited, even in Pune smart city, and the data centre's utility to the city's governance and development was questionable, with the PMC not using this data centre.

Moreover, what became evident was that the SPV was unable to attract private participation despite its corporate veneer, and was effectively working as another government body, only with the heavy involvement of management consultants. The smart city existed in Pune—everyone I spoke to knew about it, they knew of the people who were involved in it, but no one could tell me what it was, or what exactly the smart city in Pune was about. Considering the information and insight my field was presenting to me, I shifted focus and modified my research questions.

I utilised the approach of progressive focussing in doing so (Sinkovics & Alfoldi, 2012; Stake 2010). This meant that I systematically narrowed my research focus and refined my questions during my fieldwork to better accommodate and reflect the nuances of my field site. Thus, the (re)formulation of my research questions became iterative—responding and adapting to the realities my field was presenting to me. For instance, my investigations in my field site informed me that the reason a lot of the SCM projects could not be implemented, or were implemented in a far less ambitious manner than envisioned, was because of the contestation between the SPV and the local corporation. This led me to study this tussle between the two bodies and analyse it, in an endeavour to understand what the lens of the smart city and the SCM tells us about the state in India in the contemporary moment. In the process, I realised that there was a distinct temporal element to this internal contestation within the state, which led me to ground my study of the state-in-practice in not just geographic space, but temporal space as well.

To keep this process focussed and avoid the pitfalls of confused research, I kept going back to the literature and wrote short research notes with some preliminary analysis of data. I shared the same with my supervisor and her feedback helped me enormously in retaining focus and asking questions that were of significance. Thus, my thesis became not only about unpacking what smartness and smart city really mean and whom they serve,

but also analysing their inherent temporality, with a specific focus on using temporal spatialising as a window to understand the qualitative transformations underway in the state.

Thus, I reformulated the research questions of this project to:

a) What is 'smartness'? Whom is it for?
b) Why is the smart city always conceptualised as inhabiting a point in the future?
c) What does grounding the smart city in temporal space tell us about the state-in-practice in the contemporary moment?

To answer these questions, I utilised a combination of inductive and abductive logics of inquiry, as the objects of inquiry are complex and variable. To answer the 'what' parts, or the descriptive parts of questions that seek to draw out generalisations and trends, I used an inductive approach, generating insights inductively through data collected from a combination of fieldwork and desk-based research. To go a step further and unpack the complex nature of the state's internal contestation, particularly between the SPV and PMC, I used an abductive logic of inquiry which seeks to produce understanding using the actors' point of views through a bottom-up approach (Blaikie & Priest, 2019). This logic of inquiry was used to answer the remaining research questions, particularly in teasing out the element of temporality—how and why actors in the SPV situate themselves in a future temporal space, and how, and in what ways is this contested by the local corporation which is deemed 'backward'. Through grasping the motivations of the actors involved, their worldviews, and the meaning and purpose they ascribe to their own actions and activities, I was able to produce richer insights that have formed the backbone of the analysis presented in this thesis.

Finally, the case study in this project is used instrumentally, and not intrinsically (Stake, 1995). The objective is not to document and understand the granularities of the Pune SCM as an end in itself, but to create some level of generalisation that allows the micro-processes of the workings of the programme there to be related to the macroprocesses of state restructuring and urban entrepreneurialism with neoliberalisation and globalisation. I seek to produce an analytic generalisation, rather than a statistical one (Yin, 2003). The case studied here has not been taken as a sampling unit. The generalisation here is not borne out of the principle of representativeness, but through the conceptual process of situating the phenomenon in theory or theories. Further, as also mentioned earlier, I triangulated the case data with other sources of data and other cases, available through secondary sources, to strengthen the arguments being made using analytic generalisation (Yin, 2010).

As Burawoy (1985, p. 18) notes, "every particularity contains a generality". While the formulation and implementation of the Smart Cities Mission in Pune has been shaped by its local context and history, it is also the case that smart cities are a world-wide phenomenon from Songdo in South Korea to Konza in Kenya. Smart cities represent a typical manifestation of the depoliticising, neoliberal good governance agenda and speculative urban development that has been witnessed, albeit in different forms, across the world. In practice, smart city projects have been successfully implemented in very few places, and yet, they continue to be popular in the urban policy and planning space and are presented as futuristic utopias that have not yet arrived fully. In Pune, and other smart cities in India, this is also visible in smart city areas and projects which are developed as 'lighthouses'—as models for future development of cities. Thus, the micro-processes being studied here are intrinsically connected to the larger processes at play, and it is possible to extend the insights obtained from this data beyond the outline of a single case.

Having set the context for my research design, I now turn to a brief elaboration of my fieldwork timeline, before proceeding to discuss the research methods used in the next sub-section. For reference, my chosen case, that of the Pune SCM, has already been detailed in section 1.3 of Chapter 1.

3.1.1 FIELDWORK TIMELINE

I received my ethical approval from the Central University Research Ethics Committee (CUREC) in August 2022, following which I began my fieldwork in September 2022 in Pune. I intended to reside in the city for several months at a stretch to undertake fieldwork. However, the shortage of affordable, safe, short-term housing led me to keep my base in Delhi, where my home is, and I made numerous trips to Pune instead, each lasting a few weeks at a time. Overall, I continued my fieldwork for seven months, till March 2023. From September 2022 to February 2023, I conducted interviews in Pune, and in March 2023, I conducted some interviews in Delhi. I returned to Oxford in April 2023 to begin consolidating and analysing my data. Table 4 provides a breakdown of my fieldwork timeline. I stopped the active fieldwork phase of this research project once I started seeing a saturation in interview responses. However, even after returning to Oxford, I carried out a few interviews in-person and online when I met or came across people whose insight and experience, I deemed relevant and valuable for my research project.

Table 4: Fieldwork Timeline

Month	**September 2022**	**October 2022**	**November 2022**	**December 2022**	**January 2023**	**February 2023**	**March 2023**
Field work tasks	Interviews with PSCDCL officials, consultants, journalists, activists; preliminary observations; 'smart' city site visits	Interviews with academics, journalists, and resident-activists	Interviews with residents of the ABB areas, local politicians, PSCDCL functionaries; 'smart' city site visits	Interviews with journalists, resident-activists, consultants	Interviews with former elected municipal corporators, resident-activists	Interviews with local politicians and former elected municipal corporators, consultants	Interviews with former India Smart City fellows, National Institute of Urban Affairs consultants
	Photo documentation and field observations						

Source: The Author

So far, I have discussed the overall research design of my project, touched upon my fieldwork period, and how they came together to guide the direction of this thesis. I now elaborate on the sources of the data used and the methods I deployed in their collection.

3.2 RESEARCH METHODS

There are multiple sources of data and methods of collection that have been utilised in this research project, all of which are detailed below.

1. *Interviews*

The interview method was chosen because it is a purposive, non-routinised form of communication. This creates distance from usual, everyday conversations, enabling a space of greater self-reflection for both the participant and researcher. In this way, interviews provide an opportunity to explore experiences and meaning and elicit information that is not readily observed or talked about (Hammersley & Atkinson, 2007). As I sought to study the smart city by grounding it in geographic and temporal space, and

to use that as a lens to understand the qualitative transformations underway in the state, interviews constituted an appropriate method to collect data that had both depth and granularity. This allowed me to capture the specificities of my chosen case, that of the Pune SCM, which allowed the kind of analytic investigations and generalisations that this thesis seeks to make.

To collect data through interviews, I utilised a non-probability, purposive, snowball sampling method to identify my participants. Initially, I used my personal networks to gain access to some officials at PSCDCL office, thus overcoming the gatekeeping that is usually present in Indian government offices. However, I quickly realised that a prominent limitation of interviewing people at the PSCDCL office was that I was provided with an official by-the-book response to most questions I was asking, which reiterated the information I could garner from government websites and reports. While that constitutes an interesting data point in itself, I realised in the first round of interviews that if I truly wanted learn about the smart city in Pune, I needed to broaden my range of participants significantly beyond government offices.

To that effect, I utilised web searches and the professional social media platform LinkedIn to find participants whose insight might be relevant and useful for my research. The parameters I deployed in these searches included past experience of either working in the SCM, reporting on it, or participating in civil society initiatives either pro or against the SCM. Accessibility of participants in terms of location and language also played a role. I scoped out participants who were based in Pune and spoke either Hindi or English and reached out to them through LinkedIn or over the phone if a contact number was available. This did mean that my sample of respondents was skewed towards individuals who either had a web presence or would have access to such a platform, and also access to a device via which to use it. I attempted to counter this bias in two ways. One was through

the snowball sampling method. I used online searches as points of initial contact, to get the fieldwork process going. Once I was able to interview someone I reached out to online, I asked them for suggestions of others who may be suitable respondents given the scope and aims of my study. These were often individuals I could not have found, if I were scoping potential participants purely via online means.

Secondly, I attempted to counter any elite bias in my data through the use of triangulation. While the term 'triangulation' in land surveying or navigation refers to determining a location through the convergence of information from multiple points of observation, in the context of research, it refers to the use of multiple methodological sources and practices to gain a more holistic picture of the object of inquiry (Merriam & Tisdell, 2016). I used two kinds of triangulation: multiple data sources and multiple methodologies. The former refers to "gathering data from different time periods, locations, or perspectives" while the latter refers to employing multiple data collection procedures such as "gathering data via interviews, observations, and documents" (Natow, 2020, p. 161).

I covered a broad range of stakeholders in these interviews, including: functionaries from the PSCDCL, officials from the Pune Municipal Corporation and bureaucrats working with the Government of India and State Government of Maharashtra, consultants from McKinsey and PwC who have worked in the Pune SCM, local journalists, residents and resident-activists, individuals from civil society groups, local politicians, former elected municipal representatives (or corporators) of Aundh-Baner-Balewadi, academics from Savitribai Phule Pune University, and former fellows of the India Smart Cities Fellowship (ISCF) programme. A total of forty interviews were conducted this way. A conscious effort was made to interview a broad range of stakeholders to ensure multivocality in the data.

Every interview was conducted after explaining my research project and seeking informed consent. In most cases, consent was noted down and recorded separately by me instead of taking consent by signature on a written consent form. This was done deliberately as my preliminary conversations with participants made me realise that they were wary of talking freely to me about a government programme if it was being recorded, for fear of adverse consequences. Conditions of (pseudo)anonymity coupled with the lack of a recording device made my respondents visibly feel more comfortable in talking openly to me, and in a few instances, they explicitly mentioned that they appreciated the same.

The interviews were in-depth and semi-structured and lasted anywhere between 15 and 75 minutes and were usually around an hour on average. The interviews were largely conducted using a mix of Hindi and English, both of which I am fluent in. However, in a handful of interviews where my respondents largely spoke only Marathi, I used the assistance of a translator who translated from Marathi to Hindi and English for me. Hindi was the predominant language used in most of my interviews, and I translated from Hindi to English while transcribing them.

I created separate interview schedules for different stakeholders to guide the conversation between myself and the participant (see Appendix-II for the interview questionnaires). These interview schedules were also modified and adjusted to suit my evolving research questions. During the interviews, I took detailed notes of the conversation. After each interview, I transcribed every interview completely based on my notes and the memory of our interaction. The lack of audio recordings meant that some precision of information would be lost, but every attempt was made to retain the authenticity of my interviewee's voice by noting down their responses verbatim in my notes. All my participants have been pseudo-anonymised in this thesis. The interviews

were largely conducted in-person, often at my participants' place of work. However, in some instances, where an in-person interview proved to be logistically unfeasible for my participant, I conducted the interview online, and even telephonically in one instance.

I attempted to incorporate a variety of voices which helped me triangulate data more effectively. I also used other sources of data, such as documents and photographs (detailed below) to establish credibility, and ensure the validity of the information being gathered. For instance, my interview data revealed to me that the SCM's proposal for projects in Pune was crafted with very limited citizens' participation. While this information was shared with me by largely middle-class residents of the city, it was corroborated by another large-scale study. This study was conducted by a civil society organisation active in Pune, involving over a thousand participants and their findings were compiled in a report which was also provided to me. Furthermore, my interview data both confirmed and fit the pattern described in secondary research on the SCM in India published in peer-reviewed journals, identifying the elite-centric nature of the programme, and citizens' limited participation. Having detailed how I conducted interviews and engaged with interview data, I now turn to describing how I used and analysed documents as sources of data.

2. *Document Analysis*

Documents, of various kinds, have constituted a major source of data for this research project, complementing the insights generated inductively through fieldwork. Broadly put, a document can be any written, printed, painted, photographed, or recorded material that can be used to provide information or evidence (Dolowitz, Buckler & Sweeney, 2008). Following Prior (2011), I view documents as situated products, rather than as fixed and stable 'things' in the world. They are produced in social settings and are

to be regarded as collective (social) products. Thus, I have not viewed documents simply as records of events and processes, from which information is to be extracted. Instead, I have tried to unearth the larger implications and meanings behind the information being provided, by looking at the circumstances and context behind their production. This is especially the case with reports produced by consulting firms and governments, as well as social media posts from official government handles.

The use of documents in this manner increased the scope of my analysis by providing me with information and insight that was accessible more easily and quickly than the data generated by field research. While field research provided me with rich, granular data, documents allowed me to triangulate and extend the analytic generalisations being derived from the case of the Pune SCM. For instance, due to the time-constraints of this project along with financial restrictions, I was unable to carry out fieldwork in more smart cities in India, but news reports and reports from civil society groups enabled me to garner an understanding of the working of SCM projects in some other cities and how that related to the Pune SCM. Similarly, documents helped me greatly overcome issues of access that surround consulting firms. These firms are notoriously secretive, and consultants are not very open to giving interviews. But consulting firms have produced extensive documentation around smart cities, both in India and in other countries, and an analysis of these reports offered enormous insight that complemented my fieldwork interviews with consultants.

I have used a variety of documentary sources, which I detail below.

a. News reports:

News reports from online newspapers, news media platforms, and magazines constitute a significant component of my documentary analysis. They have complemented

my primary data in several ways. Prior to heading to Pune, I relied on desk-based research to gain an understanding of the SCM's working in the city, and its workings nationally. This helped me formulate my initial research questions and guided my first round of interviews in the field. Secondly, after I began fieldwork and could inductively generate some thematic insights, I refined my search of news articles using these insights. As the SCM is an ongoing, contemporary government programme, news reports also helped me obtain updated information once I left the field.

My search of news reports was limited temporally. I looked at news articles pertaining to the SCM from 2015, when the programme was launched, to July 2025, after which the data collection process of this project was halted for reasons of feasibility and utility. It should also be noted that I have gathered news information from English language publications only, and not from Hindi or Marathi language publications. This was, again, done for reasons of feasibility—to delimit the boundaries of the data that I was working with. With other languages, I would have had to translate each piece into English to use them in this project.

I created a database of 94 articles, including local news reports as well as ones from national and global news media sources. For local news, I primarily relied on two news outlets—Pune Mirror and Punekar News—and extensively scoped them for relevant data. I also utilised the local editions of national dailies such as Hindustan Times, The Times of India, The Hindu, The Indian Express, and The Economic Times. I used the national news reports of these as well. In the next sub-section, where I discuss data analysis, I discuss how I created and used this database in more depth.

b. Reports and other documents produced by consulting firms

Consulting firms produce extensive data in the form of their reports, 'thought leadership' pieces, presentations, and the like—a vast amount of which are publicly available, especially documents in the domain of governance consulting. As consulting firms have been a key stakeholder in the formulation and implementation of the Smart Cities Mission, the documentary sources that they have produced constitute important data points for this project. I have attempted to read these documents both 'along the grain' and 'against the grain'—as documents that are not just sources of information, but ones that have been created through an exercise of power (Stoler, 2002).

In the process, I have attempted to unravel the power dynamics underpinning the circumstances of these documents' production and have looked at this as knowledge in itself. For instance, Ann Stoler (2002) suggests that while reading 'along the grain', one must pay attention to the form of a document, and not just its content—what counts as evidence, repetition, or even classification systems used to produce 'facts'. I read multiple consulting reports on smart cities to determine that all consulting reports began in the same way—the introductory page or paragraph made a reference to exponential increases in urbanisation in the future and challenges that stem from it. This is not merely a factual statement based on numbers and projections, but a value-laden one that frames the narrative surrounding urbanisation: firstly, by emphasising futurism over present-day lived realities, and secondly, by stressing the challenges that may arise in the future. I detail this further in Chapter 5, where I explicitly discuss the role of consulting firms in the SCM, but such a narrative is what enables their entry into and sustenance within the smart city agenda.

Furthermore, as Stoler (2002) suggests, reading 'against the grain' involves looking at absences—what a document conceals, distorts, and misrepresents, and which

voices it does not include. I read these consulting reports against the grain by looking at the absences in the prescribed smart city vision. For example, one consulting report from KPMG (2021) emphasises that smart solutions need to be citizen-centric, but their prescriptions to that end exhibit no mention of the informal economies and informal settlements that are a characteristic feature of urban life in India (Bhan, 2020; Harris-White, 2017; Roy, 2009).

c. Reports produced by think tanks and civil society groups

Several think tanks, research organisations, and civil society organisations have carried out their own analysis of the SCM, from the commencement of the programme to its implementation in various cities, and I have used their reports and online publications as a source of data. However, this sort of grey literature has certain limitations. Firstly, it is not subject to a peer-review process of the kind that academic publications are. This makes it harder to assess the quality and credibility of the information. Secondly, this literature encounters the potential pitfall of producing biased research, being commissioned by certain organisations that may have distinct political objectives which they seek to achieve through these publications. This may mean that their work does not give equal weight to all voices and highlights them unequally (Christensen et al., 2022; Hughes et al., 2021). Nevertheless, this sort of literature has been especially helpful in learning about other smart cities in the SCM and triangulating what I learnt through my primary data, given that my fieldwork was limited in scope and duration. These documents were read with a similar lens as other documentary sources, such as the consulting reports described previously, and were only used as one amongst several sources of data to counter the limitations described above.

d. Social media posts

The SCM has been actively promoted on social media platforms by the various agencies involved. I subscribed to the official pages/handles of the Smart Cities Mission, Pune Smart City, Ministry of Housing and Urban Affairs, and National Institute of Urban Affairs on LinkedIn, Facebook, and X (formerly Twitter). Relevant posts from these accounts were collected and analysed, especially to contribute to an understanding of the narrative surrounding smartness and smart cities, which was juxtaposed against my empirical fieldwork for further analysis and insight. I have used social media posts as a source of information in this thesis and analysed their content—the text and images included in the posts. I have not conducted a geospatial analysis of social media data by studying where each post was created, neither have I conducted a network analysis of the data by analysing the follower network of the handles, the likes or re-shares on posts or comments (Wilson, 2022). Instead, I have used social media posts purposively, by following the handles on X (formerly Twitter) and LinkedIn of the Smart Cities Mission, Pune Smart City, and a few key individuals involved in programme implementation. While X is widely used by government agencies and affiliated agencies for quick and frequent communication with the public, LinkedIn provided access to more detailed and long-form content. For reasons of feasibility, I did not track accounts on other platforms such as Facebook, Instagram, and WhatsApp. The information obtained from social media posts was viewed in conjunction with my field data, to provide a more nuanced account of the unfolding of the SCM in Pune.

3. Photo Documentation

Photo documentation refers to a technique in which "photos are made systematically by the researcher in order to provide data that the researcher then analyses" (Rose, 2007, p. 243). I took photographs of smart city sites in Pune, and they constitute an

important source of empirical data for this thesis. However, these photographs were not just taken in a positivist sense, as visual records of 'facts'. Instead, these photographs were captured in recognition of the fact that there are knowledges attached to seeing (Hayes, 2009). Where, when, and what I could photograph were contingent on my positionality as a researcher and the spaces I could access. Furthermore, they are reflective of *my* interests and judgement calls as a researcher—on what I deemed to be relevant and insightful data. In this way, the photographs used in this thesis also reflect and communicate my ideas and intentions to the viewer/reader (Langmann & Pick, 2018).

Through these photographs, I also aim to give my data a sensory dimension instead of restricting it to the realm of cognitive comprehension. Pictures allow us to represent that which is difficult to put into words. As a result of this, they can be used to concepts and data that might be complicated and complex. As Hogan (2022, p. 112) argues, "As images are not linear sequences as are utterances, different levels of meaning can be conveyed simultaneously and contradictory sentiments expressed instantaneously". In several instances through the course of this thesis when I am talking about varying temporalities within the same geographic space, or about the performance of smartness, photographs help me convey these ideas in ways that overcome the deficiencies of mere words—they help in the creation of embodied knowledge; in grounding the smart city for the reader as well, beyond just an analytical frame for the research objectives this thesis aims to pursue. To this end, the photographs used in this thesis have been modified ever so slightly by playing around with contrast and brightness to perhaps allow the reader to see what I am seeing.

A key limitation of using photographs in research is that they temporally bind the data by 'freezing' it in the moment. This makes it difficult to capture change and fluidity, and as such photographs present a partial or selective representation of an event or an

experience (Ferguson, 2013; Langmann & Pick, 2018). I attempted to counter this by using photographs in conjunction with many other sources of data, from my interviews to news reports, in ways that could offset the selective representation of photographs. This was done to produce a more holistic account of the SCM's unfolding in Pune that is not limited to the moment that I was in the field site when the photograph was taken.

4. *Observation Reports/Field Notes:*

A careful record of my own personal observations and descriptions of sites and surroundings during fieldwork was maintained. This enabled me to remember, contextualise, and reconstruct the interviews in the analysis stage once I left the field. I also attempted to record my own reflections from my field experiences separately which helped me be cognizant of my positionality as a researcher, how that affected my research project, and to keep track of how my research project was evolving.

5. *Secondary Literature*

Various bodies of scholarship, ranging from work on smart cities, to work on the state-in-practice, the study of temporalities in urban geography, and urbanisation in the Global South were heavily perused and utilised to guide my research questions, analyse field data, and bolster the insights obtained from other sources of data. I went about scoping this literature thematically and iteratively. I started by studying the literature on the state-in-practice, especially in India, focussing on how the state has been transformed through liberalisation and globalisation. Following that, I proceeded to study the scholarship on urban entrepreneurialism, smart cities, speculative development, and other peripherally relevant bodies of literature. Initially, I used broad searches on the Bodleian Libraries' online database Search Oxford Libraries Online (SOLO) and Google Scholar to locate relevant literature. I used keywords and phrases such as 'actually existing state

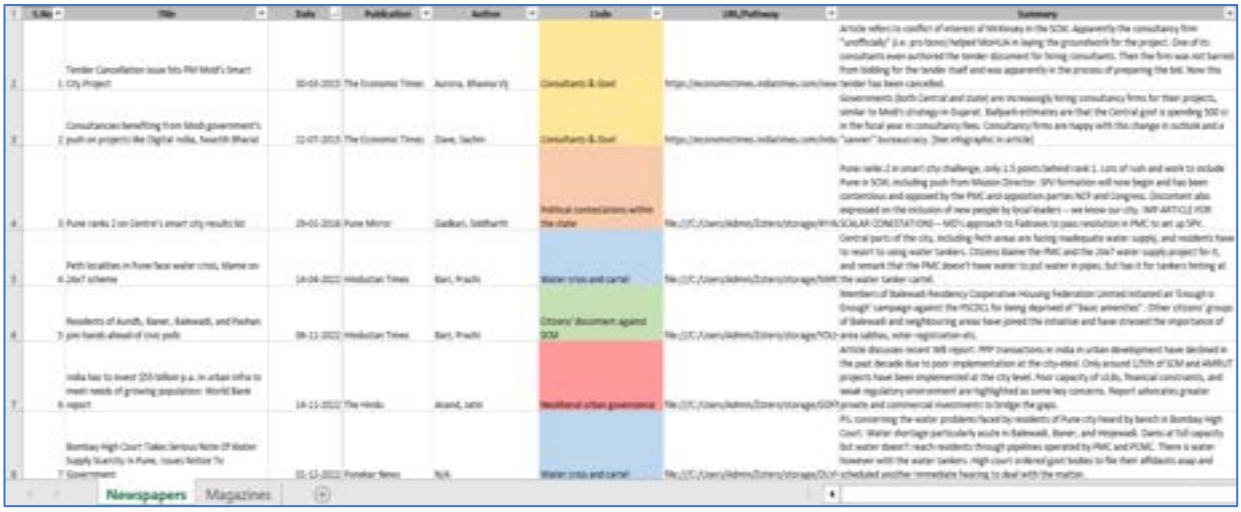
India', 'public private partnerships + urbanisation', and 'state spatial rescaling' in my searches. My research objectives shaped how I went about sifting the literature that these searches yielded. I clubbed the literature thematically and made detailed notes on the literature, which mapped key findings, research trends, and gaps in knowledge. The literature was studied keeping my research questions in mind, and as my research questions were refined, I went back to my review of literature and added to it by scoping the relevant work. Finally, following my fieldwork, which sharpened my research questions even further, I adopted an integrative review of literature, in which I synthesised complex literature from various bodies of scholarship to produce my theoretical framework for this thesis, as elaborated on in Chapter 2 (Torraco, 2005).

3.2.1 RESEARCH ANALYSIS: TOOLS AND METHODS

The interview data was coded inductively and thematically. The codes were also refined with reference to literature and as my fieldwork progressed. The codes I developed through my fieldwork also guided my documentary analysis, although the documents generated some of their own codes as well.

Initially, I used NVivo to develop preliminary codes from my interview data. However, as my sources of data expanded, from photographs to social media posts to news reports, I started coding and analysing the data manually, thematically. For the news reports, I created a database on Excel, recording summaries of the reports and assigning them a code. Figure 6 contains a snapshot of my database. The news reports tagged to a particular code were viewed in conjunction with the matching codes in interview transcripts, and often times even reports. This helped in verifying my data and ensuring its validity and also helped me produce more refined and richer analysis.

Figure 6: Analysis of news reports



Source: The Author

Once I had the data coded and analysed, I wrote an outline of my thesis and began with writing my chapters. Before proceeding to write a chapter, I extracted the data from codes falling under the themes that the chapter was discussing to aggregate all the relevant empirical data. The analysis was further refined as I wrote my chapters and received feedback from my supervisor, my Confirmation of Status viva examiners, and through conference presentations. I also created some visualisations, especially relating to the implementation of the SCM, to map out and delineate the networks and agencies involved in implementing this programme.

3.3 METHODOLOGICAL AND ETHICAL CONSIDERATIONS

There were various methodological and ethical considerations that shaped how this research project and particularly the fieldwork component panned out. Several of them stemmed from attempting to study the state-in-practice. This attempt at studying networks of power meant that I had to find creative ways of studying elites. My own positionality aided and hindered this pursuit at different times and in different contexts. Furthermore, as my participants sometimes divulged sensitive information, confidentiality was a key consideration.

3.3.1 STUDYING 'STATE PRACTICES' AND 'ELITES'

As this research project focuses on studying the state-in-practice, considering the networks that state actors are embedded in, and in interaction with was crucial. Consequently, apart from speaking to government officials and politicians, I interviewed civil society activists, residents, journalists, and consultants who were involved in the SCM in Pune. A key consideration here was that some of the social groups I was interviewing would constitute 'elites'. This conceptual category has been widely problematised in the literature, as 'elites' do not constitute a coherent or homogeneous category, and the use of the term runs the risk of oversimplifying complex power structures (Khan, Walker & Diaz, 2011; Smith, 2006). For the purposes of this study, I use the term 'elite' in its broad, multi-faceted, and heterogenous sense, referring to groups of people who possess relational power and influence by virtue of greater access to social, economic, or political capital. I also explore the networks and inter-linkages between them to avoid the pitfall of oversimplification.

Studying elites presents its own methodological challenges, a key one being access. There is usually a high degree of gatekeeping involved in accessing elites in the first place, and even when one gets access, there is often a temporal constraint involved wherein getting an elite informant to grant you enough time for an in-depth interview is challenging (Collett, 2024; Li, 2021). For 'professional elites' such as consultants, who derive their elite status from a combination of their profession and the reputation of the organisation they work with, there arises another barrier wherein these elite informants wish to safeguard the external image of their organisation, and this affects the responses they provide (Empson, 2018). To some extent, I attempted to offset the limitations brought about by these barriers by diversifying my pool of informants and speaking to a wide range of stakeholders so that I could generate data rich in insight. However, what enabled

me to gain access to elites were my own personal networks and my position as a student at the University of Oxford, in the UK.

Several years ago, Laura Nader (1974) famously gave the call to study elites in institutions at the centre of capitalism, and several scholars since then have used the conceptual tool of 'studying up' to study elites. However, following feminist scholarship critical of this approach, I argue that studying elites is not a straightforward exercise wherein power is situated in objectively hierarchical flows, and can be studied as such (Boucher, 2017; Connie & O'Neil, 2007). Instead, power is relational, dynamic, and imbued in the research process. Thus, it shaped the interviews between myself and my informants, and the knowledge created as a consequence. There were instances in my interviews wherein gaining access to elite informants and interviewing them was a relatively smooth process as the words 'Oxford' and 'UK' gave me an 'elite' status, making my informants feel more at ease with speaking to me. However, there were also instances wherein my gender identity and student identity put me at a disadvantage and made it difficult for me to access some elite informants or made the interview process challenging. The next sub-section on my positionality offers more detailed reflections on this. I aim to provide a transparent account of my positionality in this research process, acknowledging the micro-politics that have played a role in the creation and shaping of the research presented in this thesis.

3.3.3 RESEARCHER POSITIONALITY

As someone who is from India, access to my field site was relatively easier than it might have been for someone who is not from the country. But, as someone who is not from Pune and does not speak Marathi, I still occupied something of an 'outsider' status during my fieldwork. As a result, there were some exchanges and experiences in my field

sites that I could not fully capture. However, I do think my 'outsider' status made me observe and interrogate even the small details, which would perhaps not be the case if I were from Pune, as they would be naturalised for me. The separation between my home and my field site helped me put the researcher cap on more proactively.

My position as an 'outsider' was amplified by my position as a DPhil student from the University of Oxford coming to study the Pune Smart Cities Mission. In many ways, this affiliation legitimised my position, and I found that a lot of people at least responded to the initial calls I made or messages I sent them through LinkedIn to tell them about my research and recruit them as my research participants. However, this position as someone coming from an important, historical institution of higher education in the UK generated its own political dynamics, often in contrasting ways. In a few instances, I found that my English-speaking, 'foreign' status made some of my respondents a little nervous around me, and in those cases I was careful about navigating the space with as much care and sensitivity as I could. In settings of 'elite' interviews such as with management consultants, the sense I got was that the very same position made my respondents feel like they were talking to one of their own, or at least someone belonging to a familiar universe. This was perhaps unsurprising as international management consultancies pride themselves on the 'expertise' they possess by way of recruiting people who have gone to top educational institutions across the world. After one of my interviews with a senior PwC consultant, I was asked when I would finish my DPhil and what my career plans were afterwards, with a subtext to enquire if a career in management consulting (perhaps PwC?) would be on my mind.

Moreover, my Oxford identity intersected with my gender identity every step of the way. My identity as a young, single woman who is also a student made me non-threatening to some participants. I found that they were willing to talk to me more freely

and frankly. However, in other instances, the same identity served to deem my presence as inappropriate, and something to be treated with suspicion. In one instance, after an interview with a local politician in Pune who was an older man, he asked me quite out of the blue if I had worked in Pakistan, and/or with Pakistanis. While this might seem like a benign question, in India, it is a loaded one, coloured with all kinds of notions of (anti)nationalism, fidelity, and trustworthiness. Taken aback by the question, I reacted by adopting a defensive stance and saying that I had not. He then proceeded to tell me that he also "looks up" people who come and visit him, and that he had looked me up before I came to interview him. He continued to maintain that he thought I had worked in Pakistan, even when I categorically told him I had not. This whole exchange was an exercise in exerting power and showing dominance and was intended to throw me off.

This incident also made me more concerned about my safety as a female researcher in Pune, and I conducted the rest of my fieldwork with even more caution. This meant that I was more mindful about the spaces I was going to, the people I was speaking to, and the timing of my appointments. Throughout my fieldwork, I made a note of how my positionality affected my research and reflected upon the same. To that end, I have attempted to be as self-aware and transparent as possible when writing this research project.

Finally, as the daughter of a (now retired) Indian bureaucrat, the 'Indian state' has very much been in the background of my life and the periphery of my upbringing in many ways. I grew up hearing about the government and its workings. Evidently, this coloured my intellectual curiosity and shaped this research project in some ways. Most crucially, it provided me with the personal motivation to write this thesis exploring and unpacking something I have always known, but never quite understood.

During fieldwork, my father's former professional networks were not utilised. Firstly, because he did not work in the State of Maharashtra and did not have many active connections there. Secondly, conducting interviews through a former bureaucrat's reference would have shaped my participants' responses in ways that may have prevented them from speaking honestly and frankly with me. My family's personal networks were used to gain the first point of access to the PSCDCL, but beyond that I built my network of contacts in Pune on my own.

3.3.4 CUREC AND RISK ASSESSMENT

Before beginning this research project, I sought ethical approval from CUREC and a Risk Assessment approval from my department (see Appendix-I for the CUREC approval letter). Studying issues which might be politically sensitive was a central concern in both applications. To that end, maintaining the confidentiality of my participants was key. In every instance in this thesis, I have referred to my participants using pseudonyms and the real names of my participants, recorded in the raw data, will be stored in accordance with the General Data Protection Regulation.

Furthermore, I only interviewed my participants after explaining my research project to them and obtaining informed consent. I carried a Participant Information Sheet (see Appendix-III for a sample of this sheet) to these interviews and offered it to my participants if they wished to know more. Consent forms and recording devices were not used, to make my respondents comfortable. A written form with signed consent and a device recording speech, both bring in an element of third-party visibility—either the document or the audio recording could be accessed by someone else, and this potential for third-party access modifies the privacy and trust of the two-person space created between myself and my research participants. Especially as I was asking about a government

programme which people might be a little hesitant to speak frankly about for fear of potential adverse repercussions, I wanted to make sure I created a space where my respondents felt safe, first and foremost, to talk to me. Given this, I noted down their consent in another document.[15] There were also instances in some interviews where my respondents said that they did not wish to be quoted on what they were saying, even under conditions of pseudo-anonymity, and I made sure to note this down and abide by their wishes.

With respect to risks, I was cognizant of the risks of gender-based threats to my safety, and of COVID-related risks in case there was a resurgence in cases. I prepared alternative research plans, in case COVID-related disruptions happened again. For my personal safety, I made sure to choose housing in a safe and secure location, and to commute during the day and meet my respondents in public spaces. Throughout my fieldwork, I was in regular touch with my supervisor, providing her with updates on my research and how my work was going.

3.3.5 USE OF TRANSLATORS

After I began my work in the field, I realised that for a few interviews I might require a translator who could translate from Marathi to Hindi/English—languages I am fluent in. Most of my respondents were familiar with either Hindi or English, so I could conduct my interviews directly with them. For the few cases in which that was difficult, I hired a translator after seeking the requisite ethical approval via a CUREC amendment (Appendix-I contains the amendment approval as well). Through my research participants, I was also able to access some documents relevant to my research that were in Marathi. I hired a translator to translate these documents into English as well, so that I could use

[15] This document contains the real names of my informants and so, has not been included in the Appendices.

them in my research. The translators were identified through a friend who has worked in publishing—through her professional networks she knew of people who did the work of translation.

In both cases of translation—oral and written—I first had a meeting with the translators, wherein I explained my research project and the ethical considerations involved. They were briefed on my research, the importance of confidentiality, and their role during the interview. I emphasised the importance of listening to what my respondent was saying and translating that, rather than translating what *they thought* my respondent might be saying. Once they consented to assist me with translation, I asked my translators to sign confidentiality agreements, to protect the privacy of my participants and my research data, before proceeding with the work. As in all other cases, the data obtained through translation was always analysed in conjunction with other sources of data, to mitigate any potential biases from the translators themselves, and maintain the robustness of data analysis.

3.4 CONCLUSION

In this chapter, I have discussed the research design and methodological choices that shaped this thesis. I adopted a combination of inductive and abductive logics of inquiry to study the smart city, its futurism, and analyse the state-in-practice using the former as a lens. I have used a case study method, using the Pune SCM as my case. I utilised qualitative research methods involving in-depth interviews, documentary analysis, photo documentation, and non-participant observation of my field sites to study my case and the SCM. Multiple sources of data and extensive fieldwork involving a range of stakeholders enabled me to produce data that is rich and multivocal, and helped me triangulate information to ensure the validity of the data being used.

The case study of the Pune smart city has also been used instrumentally, and for analytic generalisation. Through the rest of this thesis, I have attempted to create analytic generalisations by extending some of the insights generated through the micro-processes I observed and analysed in Pune, to macro-processes of ongoing transformations in the state and urbanisation in India. Through the in-depth case study, I have been able to obtain granular data to tease out nuances that have been crucial in some of the larger conclusions and insights this thesis produces, especially as detailed in Chapter 8.

However, the singular case study is also the biggest limitation of this research project. A single case was chosen to focus the research work and produce depth in data, as the analytic focus was on grounding the smart city and studying the state-in-practice through that. Furthermore, a case study was more amenable to the constraints of a doctoral research project. At the start of my fieldwork, I did not anticipate that there would hardly be any concrete sites or projects of the Pune smart city, despite millions of rupees being spent on these projects. Only after my arrival in the city did I realise the extent to which the programme's implementation had been unsuccessful in the city. With the benefit of hindsight, a key way to improve the research design of this project would be to study the working of the SCM in a city where it has supposedly been very 'successful'. This would likely be the cities of Indore or Surat, in central and western India respectively. Studying the dynamics between the local corporation, consulting firms, and the SPV in either Indore or Surat would perhaps present an alternative case to the one I already have—one where the internal contestation of the state seemingly played a smaller role in the implementation of projects. Collecting ground-level data on the 'success' story of these cities and analysing it would serve to strengthen and refine my arguments. As mentioned previously, in this thesis, I have relied on secondary sources of information to garner an understanding of how the SCM has worked in cities other than Pune.

Nevertheless, the case data from Pune offers abundant, detailed information on the workings of the SCM, why the smart city is always positioned in the future, and how the internal contestation within the state occurs along a temporal dimension, not just a scalar one. The next four chapters present this empirical evidence to answer the research questions set out at the outset of this thesis (and this chapter as well), to substantiate and build the larger argument I am making regarding the state's spatialising in temporal space and the implications that emerge from unpacking the smart city's futurism. In the process, these chapters explore the three kinds of futures of the smart city. To reiterate, in Chapters 4 and 5, I unpack what smartness means and for whom the smart city really is. I do so by exploring the performance of smartness and the aesthetics associated with the smart city in Chapter 4, and the role of consultants in the SCM in Chapter 5. Through these chapters, I explore the future of the smart city that perpetually exists in the future. In Chapter 6, I analyse how the SCM's area-based development approach of the SCM has fuelled speculative development in Pune smart city. In the process, I identify the future of the smart city that is imagined from the present. Through Chapters 5 and 6, I answer the second research question on why the smart city is always envisioned to inhabit a point in the future. Finally, in Chapter 7, I detail the contestation between the SPV and PMC, the dimension of temporality in this contestation, and how that has fragmented urban governance in Pune further. Through this, I explore the future of the smart city that is imagined from the past. In Chapter 8, I tie up the insights obtained through my empirical work, offering a conceptual analysis of the ongoing transformation of the state in India and this thesis' unique contribution to literature. Through Chapters 7 and 8, I answer the third research question on what the SCM tells us about the Indian state in the contemporary moment.

CHAPTER 4: THE AESTHETIC PERFORMANCE OF SMARTNESS – HOW POLITICAL RATIONALES AND COMPETITION WITHIN THE STATE SHAPE PUNE SMART CITY

> In *Ambedkar Vasahat [Ambedkar informal settlement]*, there were public urinals that people from the slum would use. But that area was disgusting. People would urinate outside the urinals, and the urine would flow down to the road and the whole area would stink…
>
> The quote originally presented here cannot be made freely available in full via ORA because it contains sensitive information and may affect the privacy of the research participant involved. A part of it has thus been redacted. The quote was sourced from the interview transcripts produced from the primary data collected for this research.
>
> …There is a DAV [Dayanand Anglo-Vedic] school outside whose boundary wall this urinal was located, and we would get complaints… People agitated the next day when they saw that the urinals had been destroyed. But we did not say anything, we did not take credit for it. We were not there on the ground when the demolition had happened. We took a huge risk, but we did it for the public.
>
> – Interview with Pradeep, local politician and spouse of former corporator, Pune, 20/2/23

The above quote is from an interview I had a with a rather intriguing man who is a builder-lawyer-politician in Pune. His wife, Jagriti, was the elected representative of a ward belonging to the smart city areas, or the 1% of the municipal area that has been chosen for area-based development in Pune under the SCM. Both are affiliated to the Bharatiya Janata Party (BJP), and Jagriti was elected to the Pune Municipal Corporation (PMC) on a BJP ticket. At the time of my fieldwork, elections to the PMC had been temporarily postponed due to a court order[16], and the city was under administrative rule, i.e., was being governed by bureaucrats from the Maharashtra cadre of the civil services. But prior to my fieldwork, Jagriti was an elected municipal representative for five years

[16] In March 2022, the five-year term of the elected corporators of the PMC came to an end. In Pune and some other cities in Maharashtra, next municipal elections could not be held before the term of previous corporators ended due to issues surrounding the implementation of 27% reservation for Other Backward Classes (OBCs) in municipal corporations. The OBC reservations were enacted as law by the State government but have come up against legal roadblocks from the Supreme Court of India. Thus, elections were temporarily suspended, and the city placed under administrative rule to ensure continuity of urban governance functions. As of March 2024, the issue remains unresolved (Express News Service, 2022; Jha, 2022).

(and by extension so was Pradeep)[17], and both oversaw the implementation of smart city projects in the ward.

Pradeep is a lawyer by training and a long-standing member of the BJP. Outside his office is a board saying *'jan sampark'* [public contact] office of the corporator Jagriti. Inside the office is another board saying 'Pradeep Builders'. A quick chat with the receptionist at the office informed me that it is effectively run by Pradeep, and functions as a space for his advocacy clients, a political office, and as an office for his real estate company. Pradeep and his wife are by no means the only politician-builder duo in Pune. I encountered more during my fieldwork and as such the phenomenon of 'real estate politicians' in India, and Asia more broadly, is well-documented in literature (Balakrishnan & Pani, 2021; Shatkin, 2018). I discuss this phenomenon of real estate politicians, in relation to the Pune SCM, in Chapter 6.

But, right now, I return to Pradeep's fascinating quote, for it tells us much about the aesthetics of smartness and the politics associated with it. Pradeep uses the word 'people' and 'public' in two very different senses. 'People' are the residents of the informal settlement who pollute the area and make it 'disgusting'. 'People' are the ones who protest when their public urinal is illegally demolished, but Pradeep can avoid engaging with them, if this demolition satisfies the 'public'. The 'public' is the category of residents Pradeep 'takes risks' for—they are his constituents that as a political leader he

[17] The *73rd and 74th Amendment Acts*, 1992 to the Constitution of India mandate that one-third of all seats in elections to local self-government institutions of rural (*panchayats*) and urban (municipalities) areas need to be reserved for women. Since then, owing to the patriarchal nature of Indian society and politics, female candidates standing for elections have often become 'proxy' candidates or stand-ins for their male relatives, usually husbands, who see a higher chance of winning on the reserved seat. While the female candidate becomes the official elected representative, their male relative(s) continue to be the 'real' decision-maker(s) to varying degrees, depending on case and context. To understand this phenomenon of proxy candidates in municipalities in India in more depth, see Mary E. John's (2007) paper. For more information about reservations for women and politics in India, see: Jensenius, 2016; Rai, 1999; Menon, 2000.

feels accountable towards. He has no qualms in mobilising the extra-legal apparatus of the state in doing so because it is for 'development'.[18]

While 'people', 'public', and 'development' may hold distinctive conceptualisations for Pradeep, they illustrate quite tangibly that what 'development looks like' is politically determined. Therefore, the way smart, urban aesthetics manifest in space is shaped by politics, and to an extent, by the state. By demolishing the public urinals, Pradeep framed a sanitation issue which would be constitutive of core urban infrastructure development, as one of aesthetics. His solution to the problem was not better maintenance of the public urinal, or the provision of covered drainpipes and doors, but rather the removal of the urinal altogether from sight. Visually and sensorily, the place was unseemly, and therefore, the solution was to change the way it looks.

Ambedkar Vasahat is located in a wealthy locale of Pune—Aundh—proximate to the 'pilot road' of Pune smart city. This road is the most prominent, award-winning project of Pune SCM. It was initially a part of the smart city plans and was to be redeveloped with its residents rehabilitated. In fact, on 25 June 2016, when the Prime Minister inaugurated the first tranche of smart city projects at a massive event held at Pune, he mentioned this slum redevelopment project taken up in the city:

> When a person gets a house, he does not just get four walls, but a new way of thinking about life. It fosters an aspiration in him, and after all, the strongest impetus to progress is not [government] schemes, but the aspirations of 150 crores [population], which bring speed and become the reason for the completion of the goal. And the nation moves towards grandeur and magnificence and makes its presence known. – Excerpt from Prime Minister's speech (Narendra Modi, 2016, timestamp 1:31:11)

Throughout this inaugural speech and subsequent vision documents of the SCM, the emphasis is on aspirational urban futures—cities as engines of growth, that will propel

[18] Hereon, I use 'development' as my respondents described it—as the development of physical infrastructure such as roads, residential and commercial complexes, drainage, electricity, and water supply.

the ‘nation’ to an era of international power and prosperity. This is the notional form of the smart city, one that perpetually exists in the future, untethered to any past or future temporal states: the Future-Future of the smart city. This is one of the three futures of the smart city identified in this thesis, and as also mentioned in Chapter 2, this future is distinct from Adam and Groves’ (2007) conceptualisation of the ‘present future’ and the ‘future present’. For example, forecasting would be an instance of the present future, i.e., futures that are imagined, planned, projected, and importantly, *produced* for the present. My conceptualisation of the Present-Future, as discussed later in Chapter 6 is akin to this conceptualisation. ‘Future present’, on the other hand, refers to pre-figured futures that are sought to be accessed in the present, such as by diviners, astrologers, and shamans through practices of divination, prediction, and prophecy.

The Future-Future of the smart city differs from both of these conceptualisations in that it neither seeks to access, nor produce the smart city in the present. This abstracted, perpetual future exists only in the realm of thought, as such is found only in documents such as policy reports, consultancy reports, speeches, and the like. It is perpetuated as an idea only, and this perpetual futurism is less of a prediction or a forecast, and more of an exercise in imagination and visioning that can create temporal space that is lucrative for capital’s expansion, not just in the present, but also in the future. As an illustration of this concept, while examining the non-delivery of projects in the greenfield smart city project of Dholera in Gujarat in western India, Rakib Akhtar (2025) finds that “vision” of development never materialises in Dholera. He quotes a local farmer who says, “Development neither reaches us nor leaves us” (p. 60).

Thus, the Future-Future is presented as a blank canvas that is painted affectively with hope, optimism, and aspiration and its purpose is to continually inhabit the future. By locating this futurity of smart city and grounding its manifestation in physical space, it

becomes evident that this perpetual future of the smart city is continually propagated to ensure its persistence. In the case of the SCM and particularly, the Pune smart city, aesthetics are key to this propagation. This disjuncture between certain ideas of smart city that inhabit the future, but are not sought to be enacted in the present, or connected to the present, reduce 'smartness' to a performance. 'Smartness' becomes about 'looking smart', for nearly nine years on, nothing has changed for the people in *Ambedkar Vasahat*, except for the demolition of the public urinal. For instance, a resident-activist living in this informal settlement mentioned how he thought that its redevelopment would be a priority project, given that this was mentioned in the Prime Minister's speech and that it was also included in the city's Smart City Proposal. He recounted how he followed up with several authorities in the city, including the SPV, and even sent a letter to the Prime Minister's Office to no avail:

> The PM inaugurated the project and gave directions to local authorities. He made it like a dream project. But once he left from the scene, local authorities did not pay attention to this, so nothing concrete could be done.
>
> There are no elected corporators right now as the city is under administrative rule, but before this [from 2017-2022] there were 4 corporators representing this area… They were not interested in redeveloping this slum—it was not a priority or focus area for them. *All the corporators were from BJP, but there was no unified decision-making amongst them. They were not interested in* jhopad-patti *[thatched roof informal settlements]. They were interested in buses, footpaths, and decorations. There was no traction for [slum] redevelopment amongst them.*
>
> – Interview with Ganesh, resident-activist, *Ambedkar Vasahat*, 31/1/23, emphasis added.

The SPV eventually said that it is no longer executing this redevelopment project and that it has been passed on to the Slum Rehabilitation Authority of Maharashtra, a parastatal body that has completed similar projects in the city of Mumbai. At the time of writing this thesis, this project continues to exist in a realm of future ideation, nine years on from its announcement (Kulkarni, 2023; Times News Network, 2017). This vignette

exemplifies the first core question that informs this thesis. Smart city is typically associated with digitalisation in other contexts globally, but in India, it is about core urban infrastructure, urban aspirations, aesthetics, and everything in between. What is 'smartness' then? Whom is it for?

Evidently, for the national state (see Figure 2 in Chapter 1 for explanation of the federal structure of the state in India), slum redevelopment is an exercise in 'worlding' Pune—making it economically competitive to bring it at par with other world cities. In this conceptualisation, 'worlding' Pune is an exercise in making it an attractive destination for investment, to serve as a 'growth engine' that will generate employment, business, and opportunity in the future. But for the local state, political priorities lie elsewhere, and thus, so does the conceptualisation of a smart city. For the local state, ideas of a smart city, or the SCM, are more closely related to gains to be made, politically or economically, in the present. In Chapter 6, I explore this further. However, this dissonance in the conceptualisation of a smart city, and particularly its futurism opens a window to observe the organisation of political contestation within the state along a temporal axis. This contestation has reduced the smartness of the smart city to a performance in aesthetics. 'Cosmetic changes', 'packaging', and 'marketing' were some other words my informants used to express this sentiment and indicate the lack of substantive changes with the SCM. How does smartness become about aesthetics, and what role does temporality play in this? In this chapter, I delve into these questions and unpack what is meant by 'smart city' and 'smartness' when they traverse the journey from vague ideas to a concrete space.

The smart city is a political project, despite its veneer of a depoliticised, expertise-driven model of urban planning and development. Political rationales have played a key role in both the motivation for launching a programme like the SCM, and its implementation as evidenced in Pune. In this chapter, I specifically explore how the

aesthetic performance of smartness becomes both a consequence of and a site for political contestation within the state, as a variety of actors at various scales of governance seek to use it to further their agendas. I provide empirical evidence for the same, also showing how urban aesthetics become a strategy in subversion for the local state. In exploring contested urban aesthetics and ideas of smartness, I weave in the divergence in the conceptualisations of smart city, especially as they relate to the internal contestation of the state. However, Chapter 7 of this thesis explores that contestation in more depth and examines some of its implications.

This chapter lays the ground for my larger argument that the SCM opens a window to observe the temporal spatialising of the state-in-practice. The internal political contestation of the state has a visibly temporal dimension wherein the SPV and the associated smart state position themselves as actors and institutions of the future—more advanced and expert-driven, with the foresight to pursue a vision of smart city development that ushers in a more materially prosperous future. To pursue and attract global capital, the smart state adopts and performs the global buzzword of smart city (backed by the global IT industry), and seeks to produce its associated aesthetics, such as glass buildings, or European-style bicycle cities. It performs smartness through the theatres of 'Smart City Awards', 'Smart City CEO Conferences', Annual Summits, social media, and through consistent logo branding of its projects.

The municipal corporation is deemed too backward and inept to be charged with the task of creating smart cities. However, in Pune, the local corporation has endeavoured to bring these smart projects under its control and ambit, undercutting the Special Purpose Vehicle that has been tasked to implement it. As a consequence, larger SCM projects, such as electric buses, or providing 24x7 water supply to the city using water meters, are taken away from the smart fiefdom and brought into the local corporation's own, in ways that

can bring visible credit to the PMC. Projects like redevelopment of roads in the smart city areas are stalled by the PMC, leaving the SPV with cosmetic projects about 'improving' the aesthetics of the city. These cosmetic projects require no approval or intermediation through the PMC. Even in these projects, the local corporators are quick to claim their role and support in enabling it, through displaying their name or highlighting that the project has taken place in their ward. For the internally differentiated state, the aesthetic performance of smartness is a strategy in survival in a space of political competition, albeit in very different ways.

The rest of the chapter is structured as follows: firstly, I detail how the smart city is a political project in section 4.1. In doing so, I demonstrate that the conceptualisation of the smart city's perpetual future (Future-Future) and its consequent temporal distancing is a form of politics in itself. Moreover, its implementation in Pune has been shaped by the local politics as well. In section 4.2, I then explore the various ways in which smartness has been performed, particularly in Pune. Finally, through the case of Pune, I detail how urban aesthetics lie at the heart of the smart city when its ideas are grounded in space in section 4.3.

The next chapter continues this thread of unpacking the Future-Future of the smart city by exploring the role of international management consultancies in the SCM—their role in propagating a depoliticised, futuristic, technocratic vision of a smart city couched in the language of expertise.

4.1 THE POLITICALLY DRIVEN SMART CITY

> The first question is what is meant by a 'smart city'. The answer is, there is no universally accepted definition of a Smart City. It means different things to different people. The conceptualisation of Smart City, therefore, varies from city to city and country to country, depending on the level of development, willingness to change and reform, resources and aspirations of the city residents… In the imagination of any city dweller in India, the picture of a Smart City contains a

> wish list of infrastructure and services that describes his or her level of aspiration (MoUD, 2015).

This excerpt is from the Mission Guidelines document issued by the national government at the commencement of the SCM. Evidently, smartness is vaguely defined here, or rather, defined as an 'aspirational wish list of infrastructure and services'. Existing scholarship on the SCM in India also argues that smart city as a concept has come to mean everything and nothing at the same time (Kennedy & Sood, 2016; Prasad & Alizadeh, 2020; Smith et al., 2019). As mentioned earlier, smart city projects include everything from digitalisation, to sanitation, to developing roads and public amenities, to slum redevelopment. The conceptual fuzziness of the term 'smart city', coupled with its inherent futurism, makes it an ideal vehicle for furthering speculative urbanisation (Chapter 6 details this more). The smart city concept has been popularised in urban policy and planning globally from the 2000s by technology firms, as also iterated in Chapter 1. It has been disseminated and propagated in several countries, including India, by consulting firms—something that will be discussed in the next chapter.

The intention behind making smart city a catch-all concept and selling an associated aspirational, almost utopian future, is to create space for the expansion of capital, not just as a territorially, but also temporally. Capital is being 'fixed' not just in geographic space, but also temporal space (Harvey, 2003). A temporal space, such as that of a smart city that perpetually exists in the future, holds ever-more possibility for capital's accumulation and expansion, unbound by constraints that the 'present' would present. Spearheading this pursuit of creating smart cities is the smart state, also perpetually occupying a future temporal state. Take for instance, this following quote from the national Mission Director of the SCM, in which he equated smart cities with start-ups, saying:

> When we talk about sustainability of smart cities, we must understand how a start-up works. Initially, you put in grants, collect angel funding and develop products and services. Once these products and services are accepted in market, people pay for these. In a similar manner, our smart cities are also going to have a sustainable revenue generation model soon (Pandey, 2022).

Note the inherent futurity in the description of smart cities' envisaged working—they will generate their own revenue sustainably "soon", once their products and services have been accepted in the "market". In this particular parallel, the entrepreneurial, smart state would be the 'angel investor' speculating on the potential profitability of various urban interventions. As a corollary then, it would have to pitch its products and services to the 'right' market comprised of (smart?) citizen-consumers to maximise its economic (and political) returns. Thus, unsurprisingly, the majority of smart projects in Pune have been situated in three areas that are proximate to the IT industry in the city: Aundh, Baner, and Balewadi (ABB; see Figure 5 in Chapter 1 for map location).

Aundh was already a developed area at the start of the programme and is a relatively wealthy locale of the city. Baner and Balewadi are fringe areas of Pune and were formerly agricultural areas which were brought into the municipal limits of PMC in the early 2000s. With the establishment of the Rajiv Gandhi Infotech Park in another fringe area of Pune called Hinjewadi in the mid-1990s, the IT industry got a significant boost. Presently, that area houses over 800 IT companies including multi-national technology and software giants like Cognizant, Capgemini, Infosys, and Accenture, to name a few. As this 'tech park' and business hub exhibited growth in the past several years, proximate areas of Baner and Balewadi were chosen as smart city areas that had to be developed to house the employees of this growing industry. The following two quotes illustrate that:

> It is easy to sell SCM there [ABB]… The IT industry was also based close by. That crowd resonates with such a concept, and it was easy to implement it there. – Interview with Sahil, journalist, Pune 11/10/22

> Urban India voted in a large way for Modi and BJP [in the 2014 general elections]. It is an aspirational class that voted for them. So, they had to do something for this class. So, they got the SCM. The JNNURM was associated with the Congress, and they wanted something for their own legacy. – Interview with Pranav, journalist, Pune, 22/11/22

As is evident, the SCM was targeted towards the elite section of Pune. In his work, *Elite Parties, Poor Voters*, Tariq Thachil (2014) explicitly identifies urban cultural elites and professional middle classes as key constituencies for the BJP, whom the party distinctly favours in its policy commitments. Thus, launching the SCM in 2015 was an inherently political decision to ensure its position in power, and the smart city is an elitist endeavour. As also mentioned in Chapter 1, an aspiration towards upward mobility is a distinguishing characteristic of the middle class in India (Fernandes, 2006; 2015). The inherent futurism and nebulous conceptualisation of the smart city also lend themselves easily to cater to this aspiration, especially as the programme is geared towards creating world cities that would be lucrative destinations for domestic and international capital, and produce the associated jobs, lifestyles, and cityscapes.

To further illustrate this, out of the total proposed investment for smart city projects in Pune, 75% was allocated to this 1% of city area (see Table 1, p. 48). It was argued that this decision was based on extensive public consultation in which citizens chose to select Aundh, Baner, and Balewadi for area-based development. This consultation was done chiefly through surveys that were conducted both online and offline in which apparently over 300,000 households participated. However, my interviews with residents along with a larger city-wide study conducted by the Maharashtra Social Housing and Action League confirmed that the areas for area-based development were already chosen by 'top' and the citizens just had to provide a preference for these areas in the survey (Interviews with Rakesh, resident, Baner, 7/12/22; Naresh, activist, Pune, 24/11/12; Niharika, former corporator, Balewadi, 3/2/23). They had to express preferences

according to parameters such as “where they would most like to live” and “where they would most likely set up a business”, making this public consultation devoid of any real meaning, reiterating the performance of smartness (Pawar-Chalke & Still, 2020, p. 37).

The impression constantly given was that smart city is a project that centres the urban citizenry—their needs and wants. As a PMC document states, “It feels as if the Smart Pune initiative was orchestrated by us but owned by the society” (PMC, 2015c). My fieldwork generated contrasting perspectives. A couple of respondents gave a similar analogy that the selection of Aundh, Baner, and Balewadi for smart city projects was akin to taking the top student in class and saying that you are going to make them ‘smart’ (Interviews with Ajai, resident, Aundh, 8/9/22; Reetika, journalist, Aundh, 9/9/22). This reiterates that these projects lacked inclusivity, instead widening the urban inequality by reinforcing the privilege of the city’s existing privileged. But even amongst the residents of these areas, there was clear dissatisfaction with smart city projects and a sense of poor citizen engagement. To quote a resident of the Baner area:

> That survey was based on feedback, and not opinion. They had questions with pre-determined options, and we had to pick one. The questions were also of the kind ‘Do you think Pune is a liveable city?’, ‘Do you want Pune to be smart?’. They were yes/no type of questions. *The survey has no meaning. The projects were never discussed… It was just an exercise to show that citizen engagement has been done. There was no depth in questions covered. We were just provided with a wish-list and asked to tick pre-given projects.* We were not asked suitability, desirability of projects, given the areas’ needs. – Interview with Rakesh, resident, Baner, 7/12/22, emphasis added.

This superfluous engagement with citizens in smart city projects has also been found in other smart cities in Maharashtra, such as in Nasik and Thane, with apparently even ‘likes’ on SCP-related posts on Facebook being constituted as “positive suggestions” from citizens (INHAF, 2023, p. 57). Moreover, the elitist vision of the smart city, is further reflected in the areas chosen for area-based development under the SCM, not just in Pune,

but other cities as well. In cities like Bhubaneswar (east India) and Chennai (south India), the smart city projects were concentrated in already well-established residential and commercial areas, while the areas of these cities that are less developed were not chosen for the SCM's area-based focus (Prasad et al., 2022). While the smart city may be an elitist enterprise in design geared towards creating these spaces of perpetual futurity and associated potentiality and prosperity, the extent to which this exclusive space has been created remains questionable. For the most part, the smart city in Pune remains a 'wish-list' situated in the realm of aspirations. This is significantly due to the deployment of the SPV instead of the local corporation for the SCM's implementation and the resultant contestation between the two bodies. The next sub-section details the specific form this contestation took in Pune, but it is noteworthy that political contestation between the SPV and municipal corporation seems to also have occurred in other smart cities across India such as Bhubaneswar, Nasik, Nagpur, and Kochi (INHAF, 2023; Prasad et al., 2021; Prakash, 2025).

4.1.1 MULTI-SCALAR POLITICS OF THE SMART CITY

The implementation of the SCM in Pune met with numerous challenges. Every smart city document from 2015 onwards has been authored by the PMC, indicating that the municipal corporation was very much on board with the vision and the potential gains from it. However, in 2016, the SPV—Pune Smart City Development Corporation Limited (PSCDCL)—was created, wholly tasked with implementing this high monetary value plan. To quote Kartik, a senior functionary working as the Chief Knowledge Officer in the SPV:

> The SPV was created to do work that is not routine work, to do something different that is away from day-to-day work—to do something that is not done every day. For example, in a family, you have the mother, father, son, and daughter. On a daily basis, household work is done like cleaning the floor, dishes,

> mopping the floor etc. But one day the mother notices that the curtains have become old and need to be replaced. The father also agrees and sets aside separate money to purchase new curtains. Buying new curtains would be a non-routine activity, and it would be difficult to get the curtains replaced with the routine budget and work. Creating a separate system for it allows for the work to be done, and to be done faster. And then once the new curtains are put, everyone would like that. – Interview with Kartik, Chief Knowledge Officer, PSCDCL, 7/9/22

Note the exceptionality associated with the SPV—that it has been created to execute non-routinised tasks that the PMC may be involved in. In the analogy that Kartik offers, the SPV being an autonomous and dedicated body to execute these tasks can work on creating the smart city, such that once it has been created, everyone would like it—it is setting the agenda and shaping the expectation for how the city is to be run, and importantly, what it is supposed to look like. Even in the analogy that is mentioned in the above quote, the SPV is doing work like "buying new curtains" (metaphorically). It is improving the aesthetic of the home, in a way that signals greater prosperity, reiterating the idea that in the SCM, and especially in Pune, aesthetics are key to the smartness of the city.

Interestingly, this is what the Pune smart city became almost solely about, as a consequence of the exclusion of the local corporation from the SCM implementation plan. Thus, political contestation within the state has shaped the fate of SCM projects in Pune.

> As a citizen, I have a grievance that they only selected Aundh, Baner, and Balewadi for area-based development and spent a lot of money there. The citizens in other areas are also taxpayers. After some time, the PMC tried to replicate the successful projects of ABB in other areas. But there was a power tussle between the PMC and PSCDCL. Initially only the Mayor of the PMC was on the Board of Directors of the SPV…There were a lot of lucrative contracts that the SCM would bring, and the people's representatives wanted a share of that. – Interview with Pranav, journalist, 22/11/22

As the above quote indicates, this contestation is over control of resources and driven by rent-seeking. A common anecdotal figure I obtained through my interviews was that the PMC takes a 30% cut for every contract for development work in Pune. While I cannot establish the veracity of that figure as there are not any clear, accessible, or reliable

sources for that, this hint towards money-making was reiterated several times. These 'cuts' go towards constituency-building for local politicians, who either funnel this money back into their political parties or use them for projects in their wards that their constituents can clearly associate with them (Interviews with Pramod, 19/10/22 and Neeta, 17/10/22, academics, Pune). In other words, this money either goes towards strengthening the political party that politicians belong to or furthering their own political careers. As a seasoned local journalist of the city said to me, the municipal corporation is the "school of politics"—a starting point for many career politicians (Interview with Reetika, journalist, Aundh, 9/9/22).

To bypass municipal politics, the SPV was put in the architecture of the SCM to be autonomous in its functioning and free from the political influence of the local corporation. In Chapter 7, I build on this and detail how the SPV's depoliticisation occurs through the creation of temporal distance between the SPV and the PMC. However, for present purposes, this attempt to depoliticise the SPV operating in the city, was an attempt to establish the dominance of the national state and centralise control over resources. The funds that the SPV received for smart city projects from the national and State governments went into a separate account, unfettered by annual budgetary controls that the PMC must comply with. Interestingly, my fieldwork generated the insight that the SPV started off with a lot of financing, which eventually declined with PMC's non-cooperation and also, due to corruption that nevertheless took place with this SPV, just involving a different set of actors.

> I was a part of the initial meetings of smart city and I know what has happened. I can't name names but people have taken money for their pockets in this. They got funds from Central government, state government; they also got money from CSR [corporate social responsibility] and foreign funds. There was money. If all of us sit together, and I say that Arushi had *chai* in my house to someone later, how would they know which *chai* Arushi had? – Interview with Radhika, resident-activist, Baner, 22/11/22

The above quote is from an interview with Radhika, a life-long resident of Pune and an active participant of the city's civil society groups. She was rather excited when the SCM was started, buying into its hopeful, aspirational, and catch-all quality. Therefore, she actively participated in most meetings held with the SPV functionaries. Her reference to *chai* is an allusion to money-making in the initial phases of the smart city projects—'*chai*' can refer to a very expensive cup of imported tea or a homemade cup of *desi chai*. Anyone not in that room at that moment would never know which '*chai*' was actually consumed and how much it cost, serving as an ideal cover that makes any retroactive verification/audit difficult. '*Chai'* here demonstrates the nebulousness of informal, backdoor conversations that facilitate kickbacks. Radhika herself eventually withdrew from smart city project discussions once the SPV stopped holding consultations or meetings with residents. Thus, while there might have been a depoliticising rationale behind installing the SPV—that of bypassing the elected PMC—in practice, it is deeply entangled politically, and not as depoliticised in its functioning as it is presented to be.

The PMC is notable for being a relatively strong corporation—financially, and politically. This is both because of greater institutional decentralisation in Maharashtra and the corporation's own historic legacy dating back to the colonial period. Therefore, this internal contestation within the state I refer to is distinctly visible here, which might not be this stark in other so-called smart cities, particularly ones where the municipal corporation is relatively newer and not institutionally entrenched in the local politics. The historic legacy of the PMC serves as a double-edged sword: while it enables its characterisation as being backward and ill-suited to building the techno-utopia that the smart city promises, it also strengthens its position as the organisation with the power and experience of governing the city—contextually embedded knowledge and networks that the abstracted SPV lacks.

Thus, after a few pilot projects, the grand plans of the Pune SPV were cut back significantly. Initially, it was also planned that the SPV would get investment from private sources and loans from development banks. However, this largely failed to materialise. My fieldwork constantly brought up that the PMC did not cooperate with or support the SPV, as it was being sidelined from these high-value projects. Hence, after the initial tranches of hefty funding the SPV received, its pool of available funds declined, and consequently, the ambitious plans of smart Pune were scaled down to a third of their initial value at 1,000 crore rupees (~118 million USD). At the time of my fieldwork, most of the initial projects remained on paper, or had been implemented in a far less ambitious manner than envisioned.

For instance, one proposed project was to create smart public health clinics in and around ABB areas, wherein patients' health records would be digitised and prescriptions sent over directly to pharmacies for paperless procurement of treatment (Interviews with Sameer, Chief Engineer, PSCDCL, 14/9/22; Tarun, CEO, PSCDCL, 6/9/22). I visited one such smart clinic (there were two in existence at the time of my fieldwork) and was informed by the doctor running the clinic that it is a regular non-digitised clinic run by the PMC, with the doctor saying, *"Patient ko paper hi pasand hai. Pune corporation mein, government mein, paper hi chalta hai." [The patient likes paper only. In Pune corporation, and in the government, paper is what works]* (Interview with Rekha, doctor, Baner Smart Clinic, 2/2/23).

Figure 7: Smart city clinic, Pune



Source: The Author

However, what is different about this particular clinic from other PMC-run clinics is that patients can receive a doctor's consultation and treatment completely free of charge, whereas in other PMC clinics, a nominal fee of ten rupees (0.12 USD) is charged. Another differentiating factor about this clinic is that it is located on the same plot of land as the office of a (former) local BJP corporator. Nevertheless, at the national scale, this smart clinic is also a success story, as exemplified by a social media post from the official handle of the SCM (see Figure 8 below). Smart health is reduced to 'complimentary' public health services, rather than the initial plans of digitisation. However, it is positioned as a "substantial advancement", merely through its association with the smart city, and its correlated connotations of futurity, digitalisation, and a promise of development.

Figure 8: Post from the official handle of SCM on LinkedIn about the 'Smart Clinic' initiative in Pune



Source: Smart Cities Mission (2024)

This example also goes to show that while the smart state may seek to create these exceptional spaces in the form of smart city, and cater to an intended smart citizenry, the state still must grapple with the task of politically mobilising people outside the core elite groups to ensure its legitimacy, and consequently, survival. In this context, welfare services continue to play a pivotal role politically, however in differentiated ways again, driven by the state's internal contestation. The smart clinic is framed as a 'complimentary' service by the smart state—an extra benefit being offered to the citizens. As Yamini Aiyar argues, "Lured by what technology can offer in terms of direct benefit transfers, welfare is reframing itself as a gift offered by the party leader, almost as an exchange of loyalty rather than a fundamental right that ought to frame the terms of the social contract between citizens and state" (Venkat, 2024).

However, for the local state, welfare services *are* key functions it needs to discharge. The fact that PMC clinics exist and charge only 0.12 USD for a consultation are a testament to that. 'Population' groups, like the residents of *Ambedkar Vasahat* that I opened with, *can* organise politically to bargain and negotiate with the state (outcomes notwithstanding) and seek access to resources through the 'political society' social

contract (Chatterjee, 2004)[19]. This is the realm where at least normatively, the state still has certain moral obligations that it can be held accountable to, and is not merely a service contractor in a business deal with the citizenry. In Chapter 8, where I explore what the SCM reveals about the ongoing, qualitative transformations in the Indian state, I discuss these insights in more depth, analysing their implications.

Returning to the smart city—so far in this chapter, I have demonstrated how smart city is a political project involving a certain performance of smartness, in which aesthetics are central to signalling the imminence of the smart city. The next sections discuss what smartness in Pune looks like as manifested in space, and detail the role of aesthetics in the performance of smartness.

4.2 GROUNDING SMARTNESS IN SPACE

> The rationale [for the SCM] was that the new government [i.e., the BJP-led government which came to power in 2014] wanted a new scheme to sell as their flagship scheme. They wanted to sell it at an international level. They wanted to promote the government at that level. So, the Smart Cities Mission was like a packaging tool, a kind of marketing, a kind of cosmetic promotion. It was like their USP [unique selling pont] to sell on an international platform. – Interview with Sahil, journalist, 11/10//22

At the national scale, smartness is an exercise in worlding cities in India to make them competitive globally. There is an element of marketing to this exercise—projecting success of smart cities in a bid to make them attractive destinations for investment or even as symbols of progress and prosperity. The above quote reiterates that. There are various theatres through which this kind of smartness is performed. These include Annual Smart

[19] In his book, *The Politics of the Governed*, Partha Chatterjee (2004) makes a distinction between 'civil society' and 'political society'. While the former refers to the section of the population that uses the language of citizenship and a rights-based discourse to make claims on the state, the latter has to directly negotiate and bargain with the state through informal networks and political participation to gain access to resources. Chatterjee further argues that population groups are not always successful in their negotiations or in getting the state to recognise and respond to their claims—the state can also choose to selectively engage with members of the political society, and direct resources away from it, in order to address the claims of civil society.

City Conclaves, Smart City CEO conferences, Smart Cities India Expos, Annual Smart City Awards, and regular 'success' stories about existing projects being posted on social media platforms like LinkedIn, Facebook, and X (formerly Twitter). Figures 9-11 exhibit examples of some of these.

Figure 9: Smart Cities Mission post on LinkedIn about the Smart Cities Expo



Source: Smart Cities Mission (2024a)

Figure 10: Smart Pune's (official X handle of Pune smart city) post on the Annual Smart Cities Conclave, 2023



Source: Smart Pune (2023)

Figure 11: A list of some of the awards received by Pune smart city



Source: punesmartcity.in

To quote Aihwa Ong (2011, p. 12), "There is a mix of speculative fiction and speculative fact in worlding exercises as practitioners aim to build something they believe is for the better". In the case of the SCM, it is not just speculation, but a perpetual futurism that this concoction of speculative fact and fiction is brewed with. Take for instance the post exhibited in Figure 9 which mentions that the Smart Cities Expo is offering a glimpse into "the future of urban living". There is a compelling narrative created at the national level through various theatres of performance that a progressive, futuristic, urban transformation is underway in 100 smart cities. As Degen and Rose (2024) also argue, world city-making is an urban process in which digital technologies play a significant role in mediating the aestheticized urban experience. A key consequence is that there is a powerful emphasis on visual images and the visual appearance of cities. To quote them,

> The aim is to display the city on the global catwalk to investors and visitors in a never-ending cycle of seductive images of future buildings which circulate through cities across the globe in magazines, websites, expos, billboards, policy documents, competition briefs, social media streams and award ceremonies (Degen & Rose, 2024, p. 2183)

Thus, these smart city expos, conferences, award ceremonies, and social media posts become key avenues through which these images are circulated, especially pertaining to the smart city's futurism and the associated potentiality for prosperity and innovation. This is the ideational form of the smart city that is envisioned to perpetually operate in an abstracted future—its goal is to not necessarily realise the goals on ground but to paint a compelling image that can successfully market the city in a competitive, globalised era. However, my case of Pune smart city complicates this futurism, by analysing the implementation of the SCM projects, and the politics surrounding it.

As of 31 March 2025, the SCM projects in Pune were declared to be nearly complete with the smart city defended as a success case (Khairnar, 2025). However, the smart clinic is not the only example of projects that were cut back over the course of nine years of the SCM in Pune. Another example is of road redevelopment in the ABB areas. The poster project of Pune smart city is a 1.5 km stretch of road that was redeveloped in 2016-17 with wide pavements, commercial areas on both sides, LED streetlights, and even open gyms and play areas on the wide pavements (see Figure 12). Amenities such as optical fibre cables, drainage pipelines, and electrical cables were laid beneath the road in one go during its redevelopment with the intention that the road would not have to be dug open for several years to come. This road has won awards for being pedestrian-friendly, and a model for constructing roads for the long-term. The initial plan was to redevelop nine roads in this way in Aundh itself, but only two have been redeveloped. The roads parallel to this impressive pilot road lie in stark contrast, lacking in even regular footpaths.

As another example, there was an initiative to convert old buses into toilets for women. One of my informants, a resident of Aundh, took me to one such bus that lies inoperative, dust-covered, and just parked on one side of the pilot road for several years now (see Figure 13). Apparently, a cleantech entrepreneur was contracted to set up such

toilets by the Pune SPV. He eventually stopped receiving payments from either the Pune SPV or the PMC to run this toilet and thus, this initiative fell into disuse (Interview with Tejashree, journalist, Pune, 14/12/22).

Figure 12: Play area designed on the wide pavements of the pilot road, Aundh



Source: The Author

Figure 13: Abandoned and inoperative smart toilet for women, Aundh



Source: The Author

With respect to smart city projects based on digital elements, the actual use or uptake of those elements within the ABB area remains questionable. There are five 'smart

elements' that have been put in place—environmental sensors, flood sensors, public address systems, emergency call boxes, and Wi-Fi units. Apart from this, CCTV cameras have been set up in various places to increase surveillance for 'safety'. The data collected from all these sources is fed into an Integrated Command and Control Centre (ICCC) that every smart city has. The establishment of the ICCC is both driven by and an outcome of the depoliticised notion of a smart city that is governed more efficiently through supposedly neutral data. Furthermore, as mentioned in Chapter 1, this ICCC parallels IBM's prescription for an Intelligence Operations Centre in every smart city.

The ICCC is a common project that every smart city in India has. But in Pune, its utility seems to lie in a performance of looking smart rather than in data. However, in my interactions with residents, journalists, and local politicians, the ICCC was depicted as being of little or no use, with its data collection (if any) making no meaningful contribution to the city's governance or development. Consider the following two quotes from my interviews:

> There is no measurement of data that is happening. Whatever data the Command and Control Centre collects, none of it is available on the IUDX [Indian Urban Data Exchange]. All the data we need is already there on Google, IMD [Indian Meteorological Department] etc. There is no authentic data being collected by them. This data centre is the biggest scam of the SPV. It is only a replica of the PMC data centre. The air pollution data that they collect through the environmental sensors is not available. The only air pollution data we have is through the SAFAR [System of Air Quality and Weather Forecasting and Research] initiative in Pune, which is an existing central government initiative. How are they adding to the existing base of knowledge? How is their data being shared? – Interview with Rakesh, resident, Baner, 7/12/22

> None of their digital interventions under smart city have worked. They supposedly installed a public announcement system, but I have never heard one announcement being made using it. Similarly, the ATMS [Adaptive Traffic Management System] still has not materialised. Some 100 crores were to be spent on it. ICCC *ka bhi kuch kaam nahi* [ICCC has no use]. *Kuch nahi karte hain. Kachra* control centre *hai woh* [They don't do anything; they are a rubbish centre.] – Interview with Pradeep, local politician, 20/2/23

The actual ICCC building is itself located rather oddly away from the PMC and from the ABB areas in the midst of a residential area. The ground floor of the building is where the data centre is located, quite like a control room, with several desks and screens faced towards a wall covered end-to-end by a larger screen displaying key statistics from the data being collected. Public access to this room is restricted and only authorised visits from non-staff are allowed.

In their analysis of the deployment of the ICCC, Eichenmüller et al. (2023) argue that 'commanding' and 'controlling' might be what these centres are meant to do, but in their existence, they represent and symbolise the developmental promise associated with digitality. In this way, Eichenmüller et al. argue that smart city imaginaries, particularly ones governed by centres like the ICCC, are an echo of the cybernetics logics of the mid-20th century. This is the future of the smart city that is imagined from the past (Past-Future), with the legacies of developmentalism of the 20th century, especially in the context of a postcolonial nation. Chapter 7 elaborates on this Past-Future of the smart city.

To return to cybernetics briefly—it refers to a school of thought that fashioned itself as a depoliticised 'systems-thinking' approach for decision-making wherein all the nerves/nodes (digital elements, smart elements here) were to be connected to a brain (data centre) to produce a kind of 'god's eye view'. Facilitated via technology, this approach would produce an efficient and comprehensive flow of information leading to the most optimal decision-making (Deutsch, 1963; Eichenmüller et al., 2023). Thus, ICCCs are also designed to look like buildings that are futuristic in the sense that they are built on and run by cutting-edge technology.

> ICCCs have been made very flashy—they have an ultra-modernistic look; they look sleek and state-of-the-art. From my experience, municipal employees don't feel very comfortable in the corporate environment…Probably the concept [of

> ICCC] was borrowed from elsewhere. – Interview with Varun, consultant, PwC, 24/6/23

This PwC consultant interviewed here particularly worked on the IT projects in the SCM in various smart cities. Interestingly, he equated the modern look of the ICCC with a corporate environment which the municipal employees would not be 'comfortable' with, reinforcing the larger neoliberal/new public management view that the municipal corporations are technologically inept and 'backward'. This further reiterates the temporal dimension of the contestation between the SPV and the PMC wherein the SPV is deemed to be more advanced and is positioned in a future temporal state. However, what my data shows is that the ICCC is one among several smart city projects that have not been utilised or maintained by the PMC, more to do with political reasons, rather than any discomfort with technology.

In fact, in some other cities, ICCCs have a stronger role to play and scholars warn about the dangerous role they can play in citizen surveillance, particularly in the absence of strong and clear data protection legislation (Praharaj, 2020; Purandare & Parkar, 2020). For example, in Lucknow, a city in north India, where the Commissioner of the Lucknow Municipal Corporation is also the CEO of Lucknow smart city, 1,000 AI-backed CCTV cameras that have facial recognition technology have been set up in the city for safety (IANS, 2024). However, in Pune, my fieldwork suggests that the actual usage of the ICCC's aggregation of data remains unclear. While the ground floor of the data centre's building might be an ultra-modern, access-only control room, the floor above is open to the public and functions as a museum of sorts wherein the smart elements have been put on display (see Figure 14), reiterating the exhibitive/performative aspect of smartness.

Regardless of any substantive digitalisation of urban governance on ground, the symbolism of smartness is powerful—a modern, world city that is brimming with

aspiration and prosperity, overcoming historic, colonial legacies of underdevelopment. As mentioned earlier in this chapter, urban middle classes (with their aspiration to upward mobility), especially elites within this broad-based stratum of people, form a key and core constituency politically for the BJP. In my interviews with the residents of the wealthier areas of ABB, the idea of a smart city was not questioned—its implementation was. While my respondents may have fleshed out the idea of smartness or a smart city in different ways, the words in themselves were deemed as a normative 'good'. The following quotes illustrate that:

> The concept is very good. It creates aspirations among citizens to meet world cities standards. But in Pune, most projects remain on paper, barring a few apps that have been created under the SCM. – Interview with Sahil, journalist, Pune, 11/10/22

> A smart city should be about everything—the quality of education, school grounds, common facilities, and public amenities like roads and parks. But the ground reality, what has actually happened, is very different from what was planned. – Interview with Vinayak, resident, Aundh, 7/12/22

> To me, a smart city would be a better, liveable city. Instead of developing smart complaint centres, I would rather that basic infrastructure is fixed, that the basic work is done in a way that complaints are not generated only. – Ajai, resident-activist, Pune, 8/9/22

The perpetual futurism of the idea of smartness does not only create temporal space for capital's expansion, but holds potential for political payoffs, electorally. Unsurprisingly, to reinforce the symbolism, SCM projects are consistently branded through a logo, visible across the smart city areas—from drain covers to parks—anything to remind the citizen that the territory on which they are standing is a part of the new, smart Pune (see Figure 15). The logo itself is a fusion of animal (peacock) and machine, symbolic of modernisation through technology, and coded with the cybernetic systems-thinking mentioned earlier (Eichenmüller et al., 2023).

Figure 14: A display of the smart elements in ICCC, Pune

Left to right: Environmental sensor, flood sensor, public address system, emergency call box, Wi-Fi unit



Source: The Author

Figure 15: A cover for underground electric cables with the Pune smart city logo



Source: The Author

In its notional form, the smart city and its associated smartness perpetually occupy a future temporal state, untethered to any past or present temporal state. However, when translated to actions—in programme design and implementation—this abstracted form of the smart city encounters the stickiness of politics in the present along with legacies of the past, and smartness gets reduced to a performance. In the next section, I discuss the role that aesthetics play in this performance of smartness in Pune.

4.3 THE ROLE OF AESTHETICS IN A SMART CITY

> Baner and Balewadi are concrete jungles now that have been built without basic necessities first. *It's like saying we will take the patient to the beauty parlour first before giving them medicine – we'll do your makeup first then you fend for yourself.* They have made concrete roads that give a cosmetic touch to the city and that indicates development. – Interview with Rakesh, resident, Baner, 7/12/22, emphasis added.

> Except widening footpaths, nothing has happened with the SCM. ABB [Aundh, Baner, Balewadi] area was already developed. *It is like the patient is sick, but you say that instead of giving you treatment we will give you a blazer and a tie to make you look better. First make the patient healthy! Then give the blazer and tie…*It has been 8 years since the SCM, *par kuch bhi nahi hua hai* [But nothing has happened.] Only, some smart parks they have made and put up some solar panels. At the time the SCM was started, Congress had power in the PMC, and they did not want credit to go to them. Smart city *Modi ji ka dream project hai. Par sirf naam ka project hai, kuch hua nahi hai* [Smart city is PM Modi's dream project, but it is only a project in name. Nothing has happened]. – Interview with Sushant, local politician and former corporator of Aundh, 30/1/23, emphasis added.

A grounded picture of Pune smart city reveals that aesthetics are key to both the performance of smartness and the execution of SCM projects. The analogies given in the above quotes, of giving a makeover or providing a blazer and tie to a sick patient, instead of treating them, reiterate that the proclaimed vision of Pune's all-inclusive, all-round development at the start of the SCM, has failed to resolve key challenges of the city on ground, such as traffic management or the availability of well-connected public transport. As was stated at the beginning of this chapter, in offering everything, smart city has been able to achieve very little.

What smart city has come to be associated with in Pune are ‘placemaking’ projects. ‘Placemaking’ projects are one type of project the Pune SPV has pursued amongst others such as redevelopment of roads and streetlighting. However, they have been deployed by the Pune SPV differently than what the concept stands for (and thus, I use the term in scare quotes in the context of the SCM). Typically, placemaking as a concept in urban planning and architecture refers to creating urban landscapes in a way that centres community-building by creating spaces for people to come together in order to build stronger relationships between people and the places that they share. For example, creating more public amenities such as parks or community centres which brings residents together. The underlying idea is designing city spaces keeping the residents in mind and designing them in a more inclusive way (Project for Public Spaces, 2007; Schneekloth & Shibley, 1995).

Presumably, the project planners borrowed from this concept in the Pune SCM. However, the implementation of these projects seems to be more for visual consumption than substantive community-building. In the ABB areas, as per the SCM project plans, these ‘placemaking’ projects include creating smart parks (i.e., parks in which the lights are powered by solar panels), open gyms, play areas, swimming pools, creating pavements for walkability, bicycle lanes, and improving the aesthetics of areas through the installation of art work.

While conceptually being grounded in notions of inclusivity, a lot of these projects exhibit a distinct middle-class vision of community and shared urban living in execution. On a visit to the pilot smart city road, the chief architect explained the vision behind the redevelopment of this stretch of road, calling it an “open mall under the tree canopy” when referring to the commercial areas on both sides of the road. He informed me that the play areas on the widened pavement (Figure 12) were designed outside toy shops, so that

children who come to play there could also then visit the toy shop where their parents could buy things for them (Interview with Dilip, Architect, Pune, 24/2/23).

The working and marginalised classes of the city, who are very much residents of these areas, but lie outside formalised networks of the economy find little to no consideration in this vision. This parallels more critical scholarship on placemaking initiatives, which argues that they are often removed from the socio-economic landscape of the place and its people; promoting gentrification, displacement of locals, especially marginalised groups, and commodification of space (Fincher et al, 2016; Kan, 2020; Keidar et al., 2023; te Lintelo & Hemmersam, 2024). There are street hawkers who now occupy the corners of the widened pavements of this road, a little further along from a two-storey Starbucks outlet. I also began this chapter with a vignette about the neighbouring *Ambedkar Vasahat* and the demolition of the public urinal used by its inhabitants. Evidently, even in these 'placemaking' visions a certain urban aesthetic associated with the aspirational middle classes has been executed. Thus, the aesthetics of the futuristic smart city are exclusive in their conceptualisation: a vision for an overwhelmingly prosperous urban future leaves no room to think about the fates of those whom fortune may escape. This finding also finds resonance in other smart cities in India such as the Varanasi smart city in north India and Nasik smart city in Maharashtra. In Varanasi particularly, several smart city projects' formulation and implementation devolved into a contestation over aesthetics—creating world class aesthetics symbolic of a 'New India', such as by revamping and widening the city's characteristic centuries-old narrow lanes or '*gullies*', with little consideration to how those *gullies* facilitate the city's informal life, thus, garnering significant local opposition (Shahi, 2025; Williams, 2021). Similarly, in Nasik, the smart road was constructed without any consultation with the

informal workers who use that road, particularly the street hawkers, ultimately leading to their displacement (INHAF, 2023).

This aspirational and elitist vision is further reflected in the selection of smart city areas itself. The ABB areas were chosen to be 'lighthouses' under the SCM in Pune—to provide a model that could be replicated across the city. But smart city, as it has come through the SCM, and particularly in Pune, is a rather airy idea, filled with all kinds of visions and aspirations and difficult to pin down concretely. This futuristic, aspirational quality is why these areas in the entirety of Pune were selected for this ambitious multi-million-dollar project. In their study, Pawar-Chalke and Still (2020, p. 37) find that this aspirational image of the smart city was encoded into the programme in the beginning itself, at the citizens' consultation stage, where survey questions were designed in a way that "spoke to people's aspirations rather than addressing everyday needs". This reiterates the perpetual futurism of the notional form of the smart city. Moreover, in Pune, some of my respondents who were residents of the smart city areas also repeatedly mentioned that the urban planner chiefly involved in the pilot project had spent considerable time outside India and tried to implement European ideas of city design in Pune, without any real consideration of local requirements and needs.

> The urban designer who designed the pilot road messed it up. He made wide footpaths and narrow roads. He picked up this idea from London where there is a robust public transport system… He just blindly picked up concepts and applied them here. – Interview with Yashwant, resident, Aundh, 24/11/22

> Whose idea of the city was implemented in the SCM? Roads, water, transport, last mile connectivity is what we had wanted. In the initial meeting, we [residents/civil society groups] would push for that. But the government officials and companies present would say, "*visually toh accha dikhna chahiye"* [It should look good visually at least]. – Interview with Radhika, resident-activist, Pune, 22/11/22

Thus, smart city in Pune has largely become about 'looking smart', i.e., creating a visual look that would be similar to an economically prosperous, futuristic world city. This fits in

with the longer trend of making world cities in India—the call for making Pune the 'next Singapore' has been prevalent amongst political leaders and policy-makers since the late 2000s (Deshpande, 2013). While the aesthetics of smart city in their notional form have been about an aspirational vision, grounding these ideas in space brings out another dimension to these aesthetics—of being cosmetic, and therefore, inconsequential. In the next sub-section, I detail the role that the local politics between the PMC and SPV has played in this.

4.3.1 SMART AESTHETICS AS A STRATEGY IN SUBVERSION

> W*oh kehte hain na jo shashwat hai woh hi chalta hai. SCM poora cosmetic hai, sare projects, especially civil [infrastructure] projects* [It is said that what is eternal/perpetual is what dominates/rules. SCM is completely cosmetic—all the projects, especially the civil infrastructure projects.] – Interview with Ravi, journalist, Pune, 12/12/22

The eternal/perpetual that my informant refers to in the above quote is the PMC. Recall here, that the PMC holds a historic legacy that serves as a double-edged sword, casting it both as powerful and inept at the same time. The SPV was created nine years ago, but the Poona City Municipality (now PMC) was created in 1858 (PMC, n.d.). The PMC is the older, dominant player is deciding how Pune is to be run. In fact, in one of my visits to the SPV office, the CEO himself asked me if I had gone to PMC because they were executing bigger SCM projects.

There are three key reasons as to why the PMC has either taken over or stalled smart city projects. The first reason pertains to party and electoral politics: in 2015-16, the Nationalist Congress Party was in power in the PMC. Being a programme driven by a rival political party (the BJP-led government at the national level), SCM projects were stalled and even opposed by PMC leaders. Secondly, quick to recognise that the SPV, with its powers of planning and executing projects, issuing tenders for contracts, and collecting

revenue from the infrastructure it develops, might become a parallel body that governs Pune, the PMC put in measures to keep the former's powers in check. When the SPV was formed, PMC leaders protested that six elected representatives from the PMC should be on the Board of Directors of the SPV. Later, projects were stalled by halting transfers of funds to the SPV, or by delaying land acquisition procedures. In fact, land acquisition is a key reason which the Pune SPV cites for the delays in their projects (Data from documents shared by PSCDCL with me; Interview with Pratap, engineer, PSCDCL, Pune, 29/11/22).

Finally, as was mentioned earlier in this chapter, the SPV was to execute projects worth Rs. 3,000 crores (~ 355 million USD) as per the Smart City Proposal. The State and national governments, as well as the PMC, were to contribute to its pool of funds in multiple tranches. These funds required the approval of just 15 members on the Board of Directors of the SPV to be spent, instead of 162 corporators of the PMC. Theoretically, this was done to increase speed and efficiency, but in practice, it also meant that large sums of money were available for spending with more opacity and less regulation. As my fieldwork data highlights, several politicians did not want to miss out on this opportunity of taking the credit for several big projects in the city, and the potential for kickbacks, and so, the PMC eventually took control over many of them.

The kind of projects that the PMC took over were civil infrastructure, pan-city projects that have wider visibility across Pune and large budgets, leaving the Pune SPV with 'placemaking' projects that ended up being about aesthetics rather than community-building. While the SPV was envisioned to be a lean, autonomous company, its key personnel like chief engineers and chief finance officers, also ended up being functionaries of the PMC, who hold additional office in the SPV, reinforcing the municipal corporation's control over the latter. In this way, contestation within the state,

between the SPV and the PMC, shaped the (non)performance and delivery of smart city projects, and rendered smartness about aesthetics. With core urban infrastructure like pavements, round-the-clock electricity, water supply, and public transport networks still not developed in several parts of the city, implementing smart parks and redeveloping roads to have wider multi-purpose pavements in a corner of Pune acquired the perception of being vanity projects lacking in substance or effect.

While the PMC took credit for bringing 100 electric buses and installing LED streetlights in several parts of the city (both Pune SCM projects initially), smart city brought wider pavements and beautification projects to just Aundh, Baner, and Balewadi. In the opening vignette of this chapter, I explained how a local politician used his power and the extra-legal apparatus of the state for his constituents, i.e., 'the public', such that they may eventually translate into political gains. In the same way, civil infrastructure projects that can bring *shrey* or credit to the PMC leaders to ensure re-election or even maintain the body's control over the city's governance and development, have been co-opted and implemented, shaping the present of the smart city. These projects become PMC projects, and the smart, world city aesthetics that the SPV is trying to bring become inconsequential, and out of tandem with what the citizens require.

World city aesthetics, then, become a strategy in subversion for the PMC, that it uses to strengthen its own position. It deploys this strategy by using tactics like delaying approvals and fund transfers to the SPV, ensuring that smaller-budget projects which are about 'aesthetics' and do not require lengthy approvals from the PMC, are the smart city projects that get implemented. Even the small-scale 'placemaking' projects that have been executed do not necessarily have the inclusive, community-oriented vision that they conceptually stand for. Thus, the grounded smart city, and what it looks like is a direct outcome of the political contestation within the state—the older PMC, and the emergent

SPV, their visions of the future of the smart city, and their specific political considerations. In Chapter 7, I build on the discussions in this chapter to further detail and analyse the internal contestation within the state, between the SPV and the PMC, to understand the qualitative transformations underway in the state.

4.4 CONCLUSION

In this chapter I attempted to answer the first core question driving this thesis on what is meant by smartness and smart city and whom it is intended for. I demonstrated how despite its depoliticised, technocratic vision, smart city is a deeply political project—both in the national state's motivation behind adopting it and its implementation, as evidenced in Pune. The aspirational visions encoded into ideas of smartness and smart city are also politically motivated and intended to appeal to the middle class and their aspirations for a better future, more material prosperity, greater power, and social standing.

In its notional form, the smart city perpetually occupies an abstracted future temporal space being defined as a "wish-list of aspirations" in the Mission Guidelines itself (MoUD, 2015, p. 5). This is the Future-Future of the smart city. Moreover, the SCM seeks to harness the developmental promise associated with digitality and leapfrog into a 'progressed' developmental stage by utilising digital technologies in urban governance and infrastructure. The ICCC is emblematic of that. This futurism of the smart city is also intended to make it an attractive destination for capital, attracting investment and turning cities into 'growth engines'.

However, when these ideas of smart city are turned into action and grounded in space, they look vastly different. In Pune, the implementation of the SCM has been largely unsuccessful with projects being executed in a far less ambitious manner than envisioned.

Nevertheless, at the national scale it is still touted as one of the success stories of the programme, rendering the smartness of the smart city a performance. At the national scale, various events are organised such as Smart City Awards and Smart City CEOs Conference to facilitate this performance and indicate that innovative, progressive, and perhaps even groundbreaking things are underway in these smart cities.

In Pune, pushback from the local corporation to the SPV has shaped how the SCM has panned out in the city. There is a temporal dimension to this contestation, in which the SPV seeks to position itself as the more modern entity with a vision for the future, and the requisite neutral expertise to achieve the same. The local corporation, on the other hand, is considered too politically entrenched, backward, and inept to implement the smart city projects. This contestation between the two state bodies has rendered the performance of smartness largely about aesthetics. There are two aspects to this. At one level, through projects such as ultra-modern looking data centres, and European-style pavements and roadways, certain world city aesthetics are encoded in smartness that signal futurism, development, and aspiration. On another level, the local corporation has effectively left only smaller-budget projects with the SPV that are about 'aesthetics' by stalling or co-opting some of the smart city projects through measures like delaying approvals. Thus, smart city aesthetics have been used subversively by the local state to strengthen its own position.

The next chapter continues with this theme of unpacking what smart city and smartness mean. I explore the role that international management consulting firms play in peddling depoliticised smart city visions across the world. I examine how consulting firms enter the state apparatus, the role they play in the SCM, particularly in Pune, and how the internal contestation within the state has also led to a local pushback against consulting firms in the city. In doing so, I further analyse the Future-Future of the smart city.

CHAPTER 5: THE 'FOURTH LION': (SMART?) CONSULTANTS IN THE STATE

"*Have you seen the emblem of India? How many lions can you see in it?"*

"Three," I answer.

He asks again, "And how many are there in the actual pillar?"

I answer saying, "Four."

He says, "Exactly. The three lions you see in the front are symbolic of the centre on the left, the state on the right, and the city in the middle. The fourth lion represents the consultants. You cannot see them, but they are there behind the other three lions, supporting them."

– *Interview with Vijay, consultant, PwC, 8/9/22*

This quote is from an interview I had with a consultant, Vijay, from PwC working at the Smart City Office in Pune. Most of our interview happened with people coming in and out of his office room—Vijay seemed to be coordinating between multiple people and supervising his junior consultant. Towards the end of our conversation, I asked him why, in his opinion, governance consulting has become so popular in India. Vijay excitedly leaned forward in his chair and asked me this question about the emblem of India. His response to my question stood out to me and continued to stand out to me, as I proceeded with my fieldwork over the next few months. By referring to consultants as the 'fourth lion', Vijay implied that consultants are a part of the state machinery. In his view, while they may not be the screws and levers that one immediately observes when looking at the machinery, they are like the grease that keeps it lubricated and functional, preventing it from falling apart.

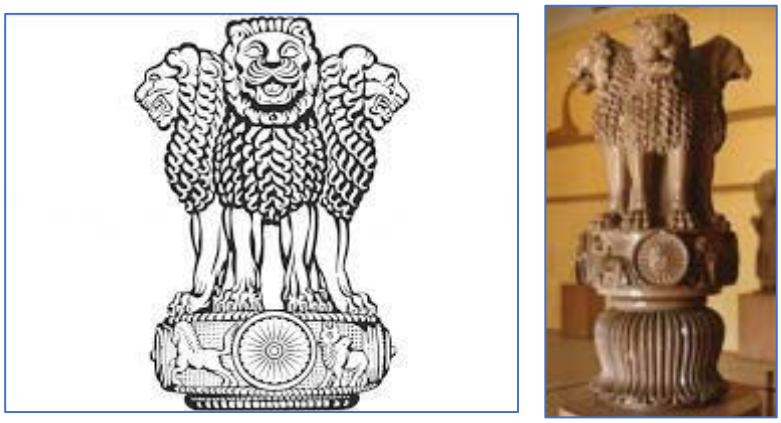
Furthermore, the Emblem of India is a symbol of the nation-state and is seen as an indicator of legitimacy, for it is used in government documents, legally sanctioned and issued currency, as well as documents issued by the state to its citizens, such as passports. By calling the consultants the 'fourth lion', Vijay equated them with the tiers of the

federal government in India. Importantly, he highlighted that this 'tier' has two distinct properties:

a. It is not visible on the face of it but exists in reality. If one looks at the two-dimensional representation of the four-lion Emblem of India, only three lions are visible. But the actual three-dimensional sculpture on which the emblem is based on has four lions, one facing each cardinal direction—north, south, east, and west (see Figure 16).
b. It holds up the other tiers by 'supporting' them.

Vijay's perception of the embedding of consultants within the nation-state and governance apparatus is reiterated by a growing body of literature on consultants, albeit with less enthusiasm and more caution. Several scholars highlight the growing proximity between governments and large consulting firms, how that depoliticises state activity, and the implications that this depoliticisation holds for democratic governance and accountability (Birkinshaw & Srivastava, 2023; Bogdanich & Forsythe, 2022; Hurl & Vogelpohl, 2021; Mazzucato & Collington, 2023; Purandare, 2021; 2023; Sami & Anand, 2021; Vogelpohl & Klemp, 2018).

Figure 16: The Emblem of India



Left: The two-dimensional representation of the Emblem of India. Right: The sculpture on which the Emblem is based. Source: https://knowindia.india.gov.in/national-identity-elements/state-emblem.php

In this chapter, I explore the role that consultants play in the SCM. From design to implementation, consulting firms have played a key role throughout. In this chapter, I explain why and how that is the case—how consultants' expertise is linked to foresight required to make the state smarter, and how they assist in the delivery of the performance of smartness of the SCM. In examining their role in the programme, I identify the strategies they use to entrench themselves within the state apparatus, functioning as brokers of the interests of capital. Moreover, I explore how consulting firms also play a key role in constructing the Future-Future of the smart city.

I argue that consultants function as a bridge between the national and the global, embedding globalising norms and logics within the state, while creating a cohesive narrative of the 'state-in-practice' (as elaborated in the theoretical framework previously), rendering it legible and legitimate to a global audience. Consultants exploit the spaces produced by the state's internal differentiation and pluralisation of governance to entrench themselves in the state apparatus. As multi-national firms with a reputation for 'expertise', consulting firms lend themselves easily to the state's aspiration to global power and a desire to leapfrog into a future developmental stage. They function as brokers of global capital, advocating for, and embedding its interests in the state through their actions and recommendations. They occupy a rather curious position, performing the work of government officials (as this chapter will demonstrate), while remaining tied to the interests of private capital, further obfuscating the fuzziness of the boundaries between state and capital that existing literature demonstrates (Birkinshaw & Srivastava, 2023; Mathur, 2014; Sinha, 2019).

In Chapter 2, I highlighted that the rise of consulting firms in governance is closely related to neoliberal policies and associated move towards New Public Management (NPM) in public administration (Mazzucato & Collington, 2023). Within

NPM, the state is pushed to become more 'business-like', to partner up with the private sector, and to increase its expertise and efficacy as it is deemed ineffective, inefficient, and lacking in capacity, particularly to deal with forces of globalisation (Hood, 1991; Keating, 1989; Osborne & Gaebler, 1994). The charges of 'inefficiency' and 'incapacity' stem from the internal differentiation of the state that creates multiple power centres and fragmented decision-making when it comes to governance. Consultants are brought to bring in order, cohesion, speed, and a vision to make the state more efficient and smarter. However, the plug-in of consultants to fill these gaps in the state apparatus, perpetuates them instead. Paradoxically, while the pluralisation of governance and internal differentiation of the state enable the entry of consultants, they also provide a source of resistance to them. In the second half of this chapter, I demonstrate this aspect of resistance through the case of Pune smart city, where consultants have met with significant local pushback, even from within the state.

Globally, in the case of smart cities, consultants have played a key role in functioning as brokers between technology firms and governments (Greenfield, 2013). In the previous chapter, I discussed how in its notional form, the smart city is perpetually set in the future. However, when this idea of a smart city is grounded in space through action, the smartness of the smart city is effectively reduced to a performance. In this chapter, I show how consultants assist in delivering the performance of smartness by propagating ideas of a smart city that perpetually exists in the future.

To compete and thrive in a fast-paced, globalising world, the state must have global ambitions and drive—consulting firms, with their international expertise, speed, networks, and global repute, are there to help the state realise its ambitions. This acquires greater significance in the case of a postcolonial country such as India, where the state seeks to overcome historic legacies of underdevelopment, and arrive at the world stage,

both to amass more international power and legitimacy, and consolidate its domestic power and legitimacy. The following quote from the Prime Minister (translated from Hindi to English) at the launch of his government's flagship urban development programmes in 2015 epitomises that:

> We are urbanising at a very fast pace. It would have been good if 25-30 years before, we had understood urbanisation as an opportunity. Small regions with dense populations are a kind of driving force for the economy. We should have recognised that potential. And seen them as urban growth engines and understood their role in our development journey. If we had strengthened our cities, then today, we would be equalling the prosperous and progressive cities of the world (Narendra Modi, 2015, timestamp 8:27).

The rest of this chapter is structured as follows: firstly, in section 5.1, I explain what consulting firms do and the strategies they deploy to entrench themselves in the state, using evidence from the SCM. In section 5.2, I unpack the role that consulting firms play in propagating the idea of a smart city with its perpetual futurism. Finally, in section 5.3, I proceed to unpack their role in the implementation of the SCM, particularly in Pune, and the local pushback to their involvement in the city.

Building from the previous chapter, this chapter further explores the Future-Future of the smart city. The image and tag of expertise, garnered through the use of consulting firms, serves to divorce the smart city from other temporal states and place it in this utopic future that is always imminent, but never reachable. As mentioned in the previous chapter, this Future-Future is an envisioned future of the smart city that is both ahistorical and not necessarily sought to be connected to the present—its purpose and function is to propagate a perpetual futurism through visions and ideas. This temporal distancing of the smart city from the rest of the city through this exercise in ideation and visioning is intended to garner political payoffs and attract global capital, and the involvement of international management consultancies is driven by those ends. The involvement of management consultancies in the SCM is facilitated through the smart city's becoming,

not being, as this chapter will show. The smart city in execution is far from an expert-driven, data-backed urban development programme in India.

5.1 CONSULTANTS AND THEIR STRATEGIES FOR ENTRENCHMENT IN THE STATE

The term ‘consultant’ can often be used as an umbrella term, referring to anyone who is not on the payroll of an organisation but instead on a ‘consultant contract’, lending their services to aid the work of their contracting organisation. Consultants are brought in because of their knowledge or ‘expertise’ that can help improve work processes. In practical terms, a consultant could be a professional in the relevant domain, another businessperson, an academic, and so on. Historically, India’s former Planning Commission, which was responsible for coming up with 5-year plans for the macroeconomic development of the country often invited several experts to consult on its work, ranging from academics to individuals from development agencies and banks (Banerjee, 2009; Sami & Anand, 2021).

However, in recent times, international management consulting firms and international technological consulting firms have become the dominant (though by no means sole) actors in the consulting domain. They enable other organisations (by advising their managers) to increase their profits or achieve other objectives—they are the “experts, extras, and facilitators” (Mazzucato & Collington, 2023, p. 107). As mentioned in the literature review provided in Chapter 2, this thesis focuses on the ‘Big 5’ consulting firms that dominate the governance consulting landscape in India. These are: McKinsey & Company, Ernst & Young LLP (EY), PricewaterhouseCoopers LLP (PwC), Deloitte Touche Tohmatsu Limited (whose consulting arm is known as just Deloitte), and KPMG LLP and KPMG Audit PLC (together, KPMG). Apart from McKinsey & Company, the

grouping of the other four consulting firms mentioned here is also referred to as the ‘Big 4’.

In India, the involvement of management consultants working in government projects has witnessed a significant and steady rise since 2013-14. This is in conjunction with the election of Narendra Modi as Prime Minister of India, who in his 2014 election campaign had also promised a ‘leaner’ government upon coming into power. From 2013-18, the management consulting market in India experienced an average growth of 10.8% annually, with the monetary value of this market being pegged at Rs. 4.5 trillion (64.8 billion USD) in 2018 (Consultancy.in, 2019). While most of that growth has been through increasing private sector contracts, public sector spending on consultants has notably increased (Shrikanth, 2019).

The Government of India has had a significant role to play in hiring consultants. Between April 2017 and June 2022, 16 out of 59 ministries of the Government of India paid almost Rs. 500 crores (roughly 60.03 million USD) in 308 assignments to the ‘Big 5’ firms (Scroll Staff, 2023). It is worth noting that this expenditure is purely based on the national government’s spending. Consultants are regularly hired by State and city governments on separate contracts. No comprehensive financial estimate is available on what the aggregate spending on consultants by the three tiers of federal government in India is at the time of writing this thesis, but presumably, it would be significantly higher than 60 million USD.

Amongst these ‘Big 5’ consulting firms in India, most of the contracts (92 out of 208) were awarded to PwC, worth Rs. 156 crores (~18.7 million USD) between April 2017 and June 2022 (Scroll Staff, 2023). In the case of the Pune smart city, PwC consultants are also the general management consultants working with the Special

Purpose Vehicle. To participate in the SCM, municipal corporations took 'technical assistance' from consulting firms to create smart city proposals. The national Government of India selected the winning proposals from these submissions provided them with funding to kickstart the proposed projects (MoUD, 2015).

In its functioning, the SCM highlights two prominent ways in which consultants entrench themselves in the state: one, they bid for contracts across tiers and sectors of government. Working across both vertical and horizontal networks of government, they can pass on information amongst their firm employees to successfully win different contracts, across tiers of government. This is one strategy consulting firms employ to entrench themselves in the state, utilising the pluralisation of governance and internal differentiation of the state to do so. Consider the following two quotes:

> Consultants have a nexus. They have become the arms of the government with vested interests. They have the advantage of insider information. The big consultancies working at the central level can tell the local ones 'Just add these 10 things to your SCM proposal and you will get more points'. As a result, they end up getting project approvals later as well. The governments also want to go with these big consultancy firms over the smaller ones because they have a natural advantage. – Interview with Harsh, government official, 17/7/23

> The consultant was brought in to make plans, to help the SPV create tenders that they can float and invite bids from contractors. But what the consultants would do is that they would put in so many conditions that only some 4 out of 100 potential contractors would even qualify to bid. They would use language like 'we suggest that these x, y, z criteria should be included'. These few eligible contractors would create a ring and drive up the bid prices and drive up the project costs. – Interview with Dilip, Architect in Pune SCM, 24/3/23

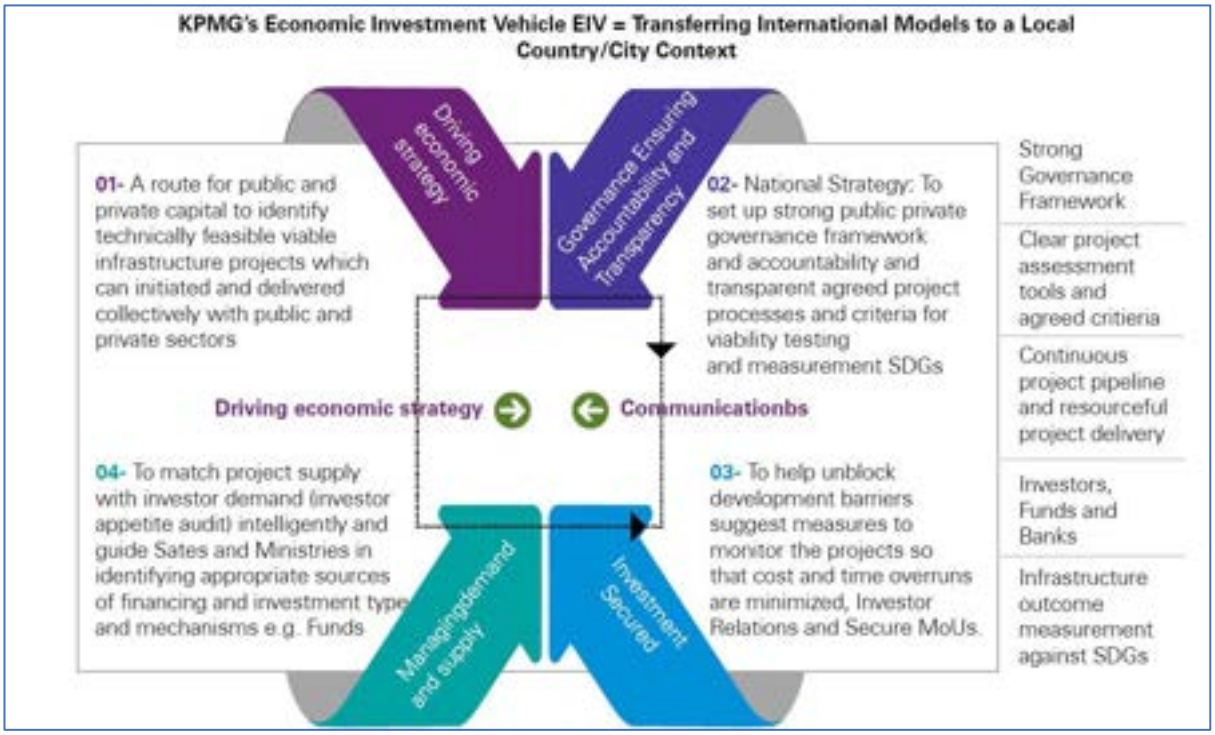
These quotes highlight how much consultants work across the state scales. However, instead of producing any kind of consensus-based, cohesive decision-making across the board, the more visible outcome is that they become a part of the state machinery. As my first respondent in the above quote states, they have become "the arms of the government with vested interests", my second respondent concretely explains why

vested interests are pushed. They reiterate that consultants occupy this dubious position within the state apparatus, performing its public-oriented functions, but representing the interests of capital. The reference to consulting firms modifying eligibility criteria to enable only a few firms to participate in the government contract bidding process, suggests that.

Second, consultants entrench themselves in the state by offering their own services as solutions to the problems that they have identified. These solutions are usually couched in the language of 'knowledge' or 'insight' that has been generated from the firms' global networks. For instance, Figure 17 below contains a model from one of KPMG's reports on smart cities in India in which they argue that the lack of municipal financing and economic investment is presently a key challenge for the implementation of smart cities in India. Their Economic Investment Vehicle, which they previously used in the United Kingdom, is proposed as a solution to overcome this obstacle.

In their own words, this vehicle is "an integrated framework of distinct KPMG services, to channel public and private capital into a viable project pipeline of opportunities" (KPMG, 2021, p. 26). The deployment of "opportunities" instead of more concrete vocabulary that speaks more to what the "viable project pipeline" may create, reiterates the nebulousness of smart city ideas and their utopian futurism. Furthermore, they claim that this model has been developed from leading international practices that can help secure investor confidence, making India the preferred destination for capital amongst other emerging markets. Through this model, KPMG hopes to become a bridge between business and government, helping the latter create a 'business-friendly' environment that can help attract economic investment, thereby, overcoming a key roadblock in making cities in India smarter.

Figure 17: KPMG's model to increase economic investment in smart cities in India



Source: KPMG, 2021

One of the prescriptions of KPMG's model is ensuring accountability through "Clear public-private governance and aligned shared economic narrative [that] help to unblock development barriers collectively, reducing political bias through clear terms of reference, thereby ensuring leadership and a governance framework of certainty for developers and investors" (KPMG, 2021, p. 26). This is an example of the smart city's depoliticising agenda in conception and discourse, enabled through the use of rational expertise and its presumed neutrality. It further highlights how consultants work across the internally differentiated state to potentially create more cohesion, such as through the development of an "aligned shared economic narrative" in this instance. Note here, how the development of this shared economic narrative is framed as an objective endeavour, without the acknowledgement of the pulls and pressures of politics that govern the allocation and distribution of scarce resources in an economy. Finally, this example also illustrates how consultants function as a bridge between the global and the national, embedding globalising norms and logics of neoliberal agendas within the state. In this

case (and in Pune as my fieldwork demonstrates in a later section of this chapter), there is not any detailed consideration of contextual politico-administrative structures or geographic constraints in which economic investment is being sought to be situated. Thus, the translation of ideas that consulting firms engage in is never precise. But presently, the next sub-section explores how consulting firms have pushed the idea of smart city globally, and their role in formulating and implementing the SCM in India.

5.2 CONSULTANTS AND THE SMART CITY VISION

5.2.1 SCALING AMBITIONS AND MODERNISING THE STATE

A significant boost to the consulting industry in India has come from the slew of digitisation and digitalisation of state and state processes that were announced from 2015 onwards through government programmes such as Digital India, *Swachh Bharat* (Clean India), Make in India, and of course, the Smart Cities Mission (Dave, 2015). Here, 'digitisation' refers to the shift from paper-based processes and data to digital processes and data, manifest in numerous 'e-governance' projects. Digitalisation, on the other hand, refers to new conceptualisations and new techniques of governance that encompass digitisation but extend beyond it, holding implications for state-citizen relationships, and even geographies where the digital infrastructures are being concentrated, notably, cities (Datta, 2023).

Digitalisation represents both speed and modernity, and its pursuit, with the associated infusion of capital is seen as not only being symbolic and indicative of growth and prosperity, but as an effacement of India's colonial history of subjugation and underdevelopment (Datta, 2019; Kaur, 2020). For the Indian postcolonial state then, digitalisation becomes both an aspiration and a strategy to overcome the historic experience of underdevelopment and technological 'backwardness' that was associated

with it. Through digitalisation, the state aims to bridge the temporal distance between an imagined 'then' with the 'now'.

The imagery of a smart city in India (and many other countries) contains grand, utopic visions of global cities driven by technology and marked by prosperity that strengthens the nation.

The text and associated Figure 18 originally presented here cannot be made freely available via ORA because they contain information that is politically sensitive. Part of the text here which is presented in the original copy can be found in Datta (2019).

{Figure 18}

In pursuit of global power, cities become the territories where nationhood and developmental aspirations are recast and the backdrops in which they are reimagined. To achieve its ambitious vision, the national state seeks to partner with international consulting firms. With their global networks and reputation of being the experts, the state deems a collaboration with consulting firms as the way to remain competitive and achieve its ambitions and do so quickly. Speed is key to moving along the envisioned linear development trajectory and arrive at a future state of development, power, and prosperity. Consider the following quote from a senior consultant at McKinsey & Company who was involved in the Pune SCM:

> The vision was to do what can be done in 60 months in 30 months. It was ambitious and so they said let's ask a consultant to do that, we want to be more ambitious. – On McKinsey's involvement with Pune smart city, Interview with Abhinav, Associate Partner, McKinsey & Co., 9/12/22

Interestingly enough, McKinsey & Company did deliver a supposedly ambitious plan for Pune smart city worth Rs. 3,000 crores (~354 million USD). This was in the form of a Smart City Proposal which sought to make the Aundh-Baner-Balewadi area one of the top 10 'most livable' areas in India, and one of the top 25 areas in the 'ease of doing business' rankings given by the World Bank (PMC, 2015). However, as the previous

chapter showed, it is questionable if any of those ambitions were realised. As mentioned earlier, consulting firms helped deliver the performance of smartness and market the idea of a smart city. Noteworthy here is that even in the vision of making the ABB areas one of the best, the vision is more akin to the development of a prosperous private township or a rich suburb, rather than a realistic consideration of the holistic development of the city. In the next chapter, I discuss this further by analysing the 'lighthouse' approach of the SCM through which the ABB areas were selected as the smart city areas.

Being the 'experts', consultants trade in ideas, however through their trade, they become both sellers of particular ideas and embedders of particular material interests within the state. In my interview with Vijay, a PwC consultant working at the Pune SPV, he mentioned how they (PwC) had suggested monetising the 'assets' created under the SCM such as the Wi-Fi units installed across the city or parks created under 'placemaking' initiatives, i.e., charging citizens for their usage (Interview with Vijay, PwC, 8/9/22). This reiterates the smart state's vision of being an enterprise that is a 'service-provider' to the citizens, while also affirming the elitist vision of the smart city that hinges upon the middle-class consumer-citizen. In the case of the SCM, consultants have attempted to promote privatisation of the city, pushed interests of technology corporations, and altered governance in the endeavour to make the state smarter, as the next sub-section demonstrates.

5.2.2 BRINGING SMARTNESS TO INDIA AND TO THE WORLD

As noted earlier in Chapter 1, the SCM seems to parallel IBM's Smarter Cities programme in design. Like IBM, India too, organised a 'Smart Cities Challenge' in which 100 cities were selected, offered funding from the national government, and utilised consultancy services to design smart city projects. The national government even announced a list of 48 pre-approved consulting firms, for different states/regions in India, that the local governments of cities participating in this competition needed to hire to draft a Smart Cities Proposal for the Smart Cities Challenge. Unsurprisingly, the 'Big 5' consulting firms (as mentioned earlier) feature in numerous government contracts and are clearly mentioned in this list as well (see Appendix-IV for the full list of approved consulting firms for the SCM.)

The Integrated Command and Control Centre (ICCC) which parallels IBM's 'Intelligence Operations Centre' in purpose was pitched to the Ministry of Housing and Urban Affairs by PwC (Interview with Shweta, PwC consultant, 12/2/23). Moreover, McKinsey & Co. were one of the main partners in conceptualising the SCM in the first place (Aurora, 2015). In an interview with a consultant working at the National Institute of Urban Affairs, an organisation that works closely with the Government of India on its urban development programmes, the nexus between IT companies and consulting firms was explicitly identified:

> Smart city was used by Cisco and Siemens to push their product. They are the benefactors of this project. The second big benefactor are the consultants. Around 18,000 crores [~2 billion USD] have been spent on consultants too in SCM. Bloomberg Philanthropies made a documentary of sorts when Modi came to power. Smart cities were an international bandwagon that India did not want to miss out on. – Interview with Rishabh, consultant, National Institute of Urban Affairs, 29/3/23

In saying that India did not want to be "left behind" on an international bandwagon of smart cities, my informant signalled the aspirations to global power and legitimacy that continually emerge. There is a temporal element here as well—the desire to not revert to a past of underdevelopment, while other nation-states move linearly towards the future, towards a more progressed stage of development brought about through technological advancement. A partnership with international consulting firms is a strategy in this pursuit. Unsurprisingly, while pitching themselves to governments, these firms often highlight their global reach (see Figure 19).

Figure 19: PwC's work on smart cities across the world, as exhibited in their presentation on smart cities in India



We bring our experience in Smart Cities from across the world

City	PwC Role
Paris,France	Conducted a benchmark study for Paris to assess Smart City status and gather best practices
Cantabria, Spain	Trend analysis and forecast of the ICT Sector, prioritizing action areas and definition Smart Cities actions plans as well as business cases to implement.
Bahrain	Design and implement an e-Government for the Kingdom of Bahrain
Malaysia	Presented the smart communities concept and facilitated the contributions of major municipal solution providers such as IBM, GE, Philips, Verizon and Cisco to provide best practices in developing smart communities
Nice, France	Defined the Smart City strategy of Nice Cote d'Azur. Conducted a diagnostic of the local digital Ecosystem. Managed the launch new services.
Rio Negocios, Brazil	Identified the priority economic sectors and the opportunities for foreign/ domestic investments
Oslo, Norway	Partnered with Siemens to conduct an analysis of potential for producing less emissions of greenhouse gases, and using energy more efficiently through available and smart solutions.
New York	Created a broadband adoption plan to increase the use and penetration of broadband among city residents.
Skolkovo, Russia	Analysed & developed city management topics, including the development of the Transportation Strategy for Skolkovo city
Chicago, US	Launched a new payment system that allows riders to use a smart card, linked to a bank account, to board public transit. The team also launched smart phone and web applications
Beijing , China	Beijing city wanted to know what policies to pursue in order to become a world city by 2050
Bavaria, Germany	Programme management office for roll-out of new Broadband strategy for the region
Astana, Kazakhstan	Smart City Vision, KPI's, readiness assessments and roadmap to become a leading smart city
Naya Raipur, India	Prepare the Detailed Project Report, ICT Master Plan and assist with procurement of smart city solutions

PwC

Source: PwC India, 2015

This pursuit of global power is intended for a particular global audience—international development banks, development assistance from countries such as the UK, USA, Japan. In Chapter 1, when I discussed the programme design of the SCM, I highlighted how financial assistance and technical assistance from Global North countries and agencies in the form of "handholding" have been woven into the programme design itself. Further, the directives to raise foreign finances from multi-national corporations (also constitutive of this global audience being referred to above) for the SPV's functioning are included in the programme design as well (MoUD, 2015, p.10). Finally, this pursuit of global power also caters to citizens situated domestically who either aspire to or are already enmeshed in global capital flows. For example, in 2016, a Memorandum of Agreement was signed between the Pune SPV and the European Business and Technology Centre (managed by the Association of European Chambers of Commerce

and Industry). On this agreement, the then-CEO of the Pune SPV commented, “It will… empower our Smart City initiatives through access to European Union standards of expertise, policy frameworks and also European funding bodies” (Express News Service, 2016). Moreover, in Pune, as the previous chapter demonstrated, most of the SCM projects have been concentrated in a small area geographically proximate to the IT industry in the city, consisting of offices of several multi-national technology firms.

Not just in India, consulting firms have had an important role in bringing smart cities which are perpetually set in the future to several other countries. In Kenya, a greenfield smart city called Konza City was proposed in 2008 as a groundbreaking city that will be a source of national pride, with cutting edge technology and international investment. The entire Konza City plan was developed by McKinsey & Co. for the Government of Kenya, selling it smart ambitions and visions. As of 2021, the city was not even close to being developed, having faced numerous legal and logistical challenges since its inception (Baraka, 2021). This is another instance of a smart city that exists in perpetual futurism.

Similarly, in 2017, Mohammed Bin Salman, Crown Prince of Saudi Arabia announced his plan for the development a city from scratch called ‘Neom’, which would be built over 10,000 square miles, and be a technology-driven futuristic utopia (or dystopia, depending on one’s perspective). The plans for this city included creating cloud-seeders that will bring artificial rain to this desert area, drone taxis in which people could fly to work, glow-in-the-dark sand, and an artificial moon that would light up each night (Mata, 2023; Scheck et al., 2019). The plans for this city were developed by three management consulting firms—Boston Consulting Group, McKinsey & Co., and Oliver Wyman. To create the fake moon, consultants from Boston Consulting Group even suggested that the Saudi government partner with NASA to make it the ‘biggest in the

world'. As evident, the smart city here as well is not simply about enhancing the speed of the city and facilitating real-time communication and action, but coded with both developmental aspirations and the Saudi Arabian national state's aspirations to global power. The initial cost estimates of this project were at least 500 million USD and remains hugely controversial, most notably because it involves creating this futuristic spatio-temporal bubble through the forced displacement of over 20,000 people belonging to a native tribe who inhabit the land on which this city has been proposed (Michaelson, 2020; Scheck et al., 2019).

But what makes cities, or rather the idea of a city, so compelling for consulting firms when it comes to imagining these digital futures?

5.2.3 CITIES AS STRATEGIC SITES

Numerous reports published by different consulting firms on smart cities begin in the same way—by highlighting that urbanisation is taking place at a break-neck speed and that the majority of the world's population is expected to live in urban areas in the future, with countries in Asia and Africa urbanising at the fastest pace (the future here ranges from any calendar year between 2030-2050) (Deloitte Insights, 2018; KPMG, 2021; McKinsey Global Institute, 2018; PwC, 2015; 2017).

This trend of rising urbanisation in the 21st century, particularly in South Asia and West Africa was also highlighted at the beginning of this thesis (see Figure 1, p. 28). These territories, where a majority of the globe's population will be concentrated, are imagined as future hubs of economic activity. For businesses then, cities become key sites to expand, and the task of entrepreneurial city governments is to tap into this future economic potential and facilitate businesses to secure development. This expected urban growth holds potential, both for opportunities and challenges, and this potential is

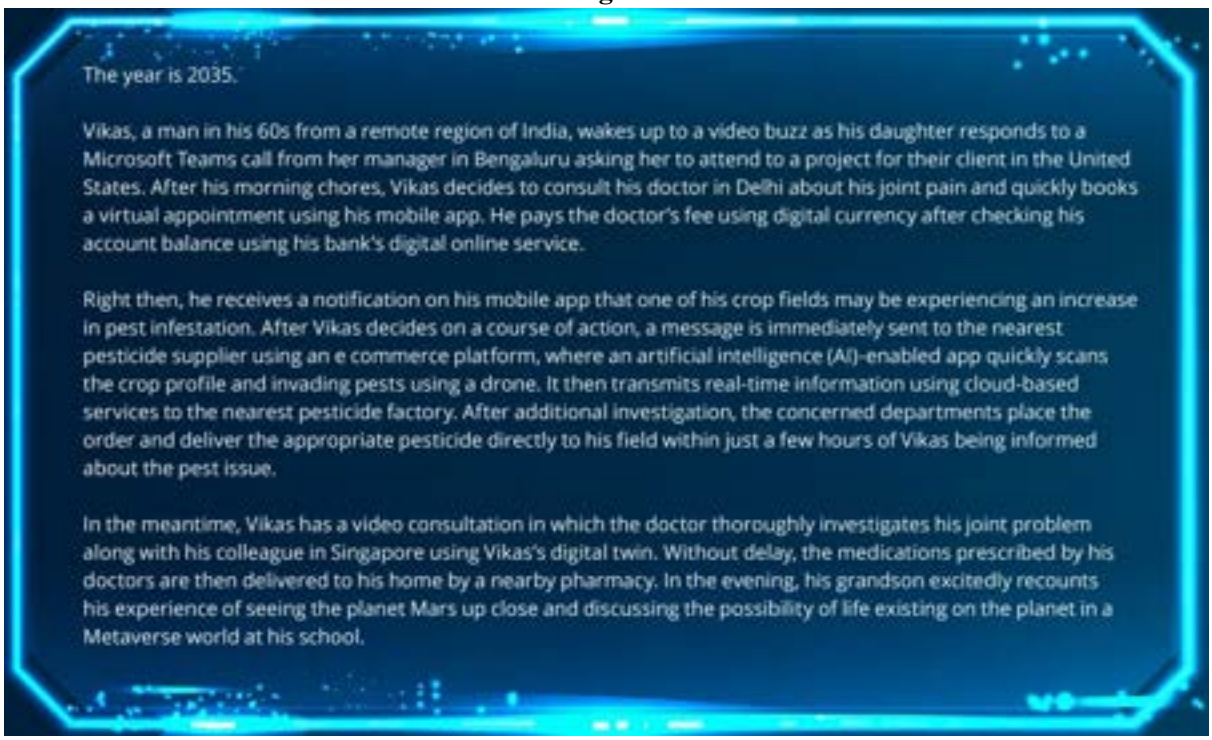
articulated in varying ways. For consulting firms, rapid urbanisation in the future is anticipated to give rise to numerous challenges from physical safety, water scarcity, waste production and management to environmental pollution. These challenges are imagined to be successfully overcome through the innovative use of new technologies and digitalisation, akin to James Merrciks White's (2016) analysis of smart cities as imagined utopias designed to counter imagined dystopias. Evidently, in this scenario the future is recruited in a way that directly benefits the technology industry, generating potential future markets for it. Thus, as the brokers of strategic interests of the technology industry, consulting firms play a key role in propagating a perpetual futurism, witnessed through the Future-Future of the smart city.

Consider Figure 20 provided below. It is extracted from a 2023 report produced by the Confederation of Indian Industries and the consulting firm, Deloitte. The report has been jointly produced to ideate on how India can harness the proliferation of internet users in the country and growth in digital technologies for the country's development. The tone of the excerpt provided below resembles that of a utopian vision, rather than any evidence-based projection. This future articulated for the year 2035 is also dis-embedded from any contextual factors—geographic, socio-economic, political or temporal.

In this excerpt, Vikas is imagined to be a farmer living in a remote, rural part of India. He is able to live a life of convenience, efficiency, and relative comfort as a result of digital technologies that compress time and space and create a network of smooth and swift information dissemination and processing. The word '*vikas*' itself means development in Hindi. Thus, India's digital future here is imagined as a techno-utopia wherein having the right information solves challenges to bring about development. This is an instance of the future being envisioned as a blank canvas, that can be painted (rather

whimsically in this instance) without any consideration of ethics, responsibility, or material realities of the past and present.

Figure 20: Deloitte and Confederation of Indian Industries' (CII) prediction of India's digital future



Source: Deloitte and CII, 2023

In a similar vein, the idea of a perpetually future-inhabiting smart city was pitched by consultants in Aurangabad smart city, another city in Maharashtra. However, in this case, the chosen Project Management Consultants were removed from the programme altogether after the initial stages of project formulation and selection, precisely because their ideas of the smart city were completely out of touch with the ground realities. To quote the report on the same, "There was some tension between how the consultants had imagined the city and the projections they were making versus how things were actually on ground" (INHAF, 2022, p. 9). I previously mentioned the example of Konza City in Kenya which suffers a similar fate of being the bearer of imminent yet unreachable ideal urban living, but numerous other examples can be found, including Songdo in South Korea—one of the first smart cities. Whether greenfield or brownfield, these imagined

cities of the future are created on the present of people who occupy the land on which they are to be built. The fact that there are unmet promises and unrealised visions have not served as hindrances to the preponderance of smart city models across the world, for how can you critique something that has not even taken place yet?

So far, I have discussed the role of the consultants in the SCM at a broader level. I have explained who consultants are and the strategies they use to embed themselves in the state. I have discussed their role in propagating the futurism of smart cities to governments in India and elsewhere, their promotion of speculative urban development and the endeavour to make the state 'smarter' in that process. I have also examined states' rationale in partnering with consulting firms and the role that developmental visions and ambition for global power play in it. I now focus more deeply on their role in the implementation of the Smart Cities Mission, particularly in Pune. The next section of this chapter details this.

5.3 CONSULTANTS IN THE IMPLEMENTATION OF THE SCM

5.3.1 IN PROGRAMME DESIGN/ARCHITECTURE

> "The corporation [Pune Municipal Corporation] has always followed "TOD" – *thekedar-oriented development* [contractor-oriented development]. 50% of the funds for development work would go to the contractor. After smart city, this changed. In smart city, McKinsey, an international firm was the consultant – *alag style ka TOD ho gaya phir* [a different form of contractor-oriented development came about]. Instead of local contractors, these multinational companies started playing that role." – Interview with Ravi, journalist, 12/12/22

Ravi is a journalist at a local newspaper who proudly told me that he had a role to play in the removal of McKinsey & Co. as the Project Management Consultant (general managers) in the Pune SPV, by asking questions about their fees and their contribution to the SCM. However, before he delved into any of that in our conversation, he mentioned the above. In doing so, he not only highlighted the role of business interests in

development projects in Pune but also mentioned a change in actors whose interests are playing a key role—from construction/building contractors to international consulting firms—an *alag style ka TOD* [a different form of contractor-oriented development]. Thus, the smart state is not as apolitical as it is presented to be.

Ravi's remarks stem from the ubiquitous role that consultants have played in the SCM from its inception to execution. Back in 2014-15, McKinsey & Co. "unofficially" helped the Government of India come up with the blueprint and design of the programme nationally, by lending their services *pro bono*. A consultant from the firm even authored the document inviting tenders from consulting firms to work with the then Ministry of Urban Development for the SCM. Having played a role in authoring the tender document, McKinsey & Co. then started preparing its bid to win the said tender as well. However, this information became public and after several complaints that raised the issue of conflict of interest, this tender was scrapped (Aurora, 2015).

Once the programme was officially launched, consultants' role in it was institutionalised. At the city level, the smart city SPV hired consulting firms in various capacities, but they necessarily hired a consulting firm to be the general managers to oversee projects in the city. The presumed expertise and speed of consultants was supposed to enable faster decision-making (without much debate) on the type of projects, number of projects, and estimated budget that was to be put in the proposal, given the tight deadlines.

At the national level, several big consulting firms have been involved, operating from *Nirman Bhawan* itself, the building that houses the national Ministry of Housing and Urban Affairs (MoHUA; Interview with Reena, former Indian Smart City Fellow[20],

[20] As a clarification, the MoHUA started an India Smart Cities Fellowship in 2019, a one-year programme to involve young professionals in urban development and governance to generate 'innovative solutions'. These

24/3/23). Cities are required to report data that is being collected from projects in the SCM (such as from environmental sensors, or the use of water meters) to MoHUA. Consulting firms operate as Technical Assistants to the Programme Management Unit set up at the national level. For example, PwC collects the data coming from the cities, cleans it, and analyses it. They even create the templates for collecting data and the assessment frameworks for the programme (Interview with Shweta, PwC consultant, 12/2/23). Deloitte creates a repository of all the projects being carried out in the country in different cities (Interview with Reena, former Indian Smart City Fellow, 24/3/23).

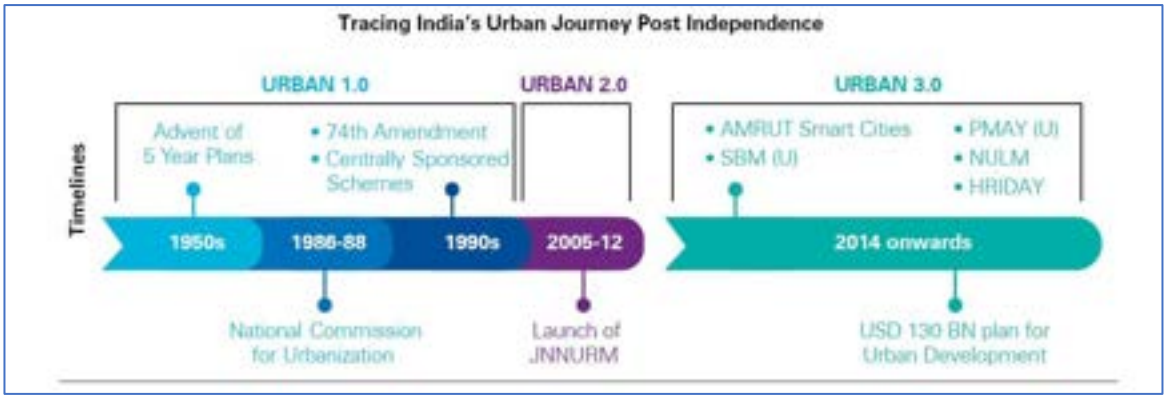
Thus, consulting firms in the SCM are increasingly indistinguishable from government officials in the work that they perform. Furthermore, they seem to be most closely affiliated with the national state as they were entrenched into the design of the SCM from planning to implementation by the national government of India. Secondly, all the 'Big 5' consulting firms are working in the Programme Management Unit for the SCM at the MoHUA. I argue that the embedding of consultants in the state is most predominant at that national scale of the state because the intensity and pressure to compete globally is felt most acutely by state actors at that scale. Especially so, in a programme like the SCM where nationalist developmental aspirations are encoded into the idea of having a '100 smart cities'. This in turn, is reflected in the work and language of consultants themselves. When I asked the consultants I interviewed, on what motivates them to work in governance consulting, a common response I received was that they want to participate in nation-building or give back to the nation.

fellows work on fixed-term contracts with the ministry. They spend half of their fellowship working in Delhi with government officials at the MoHUA and consultants involved in the SCM at the national level, and in the other half, they are posted to a smart city to work with the SPV.

What constitutes ‘nation’ or ‘nation-building’ in their imagination? While I cannot fully answer this question (as it is not my primary research focus), what can be inferred from their reports and my data is that in the SCM, the nation, or rather the existing and imagined cities of the nation, are constituted of a predominantly professional middle class entrenched in networks of global capital. The informal life of the city, either through workers engaged in the informal economy, or informal networks of governance, find no substantive thought or consideration. This is one reason why their ‘global’ models falter when implemented on ground.

Furthermore, as profit-driven multinational enterprises, ideas of ‘nation’ that are politically profitable, and therefore, economically beneficial (in matters of governance consulting) are endorsed. As an example, a KPMG (2021) report on smart cities in India, rather oddly categorises three phases of urbanisation in India, with the third being the most ambitious and advanced (and ongoing) phase, which is situated 2014 onwards, with the election of the BJP-led government, and the programmes/policies that they announced. Everything from the independence of the country in 1947 to 2005, including the landmark *74th Amendment Act* that provided a constitutional status to ULBs, is placed in Phase I instead (see Figure 21). As mentioned earlier, this “third phase” is also the one which has seen a boom in government spending on consulting firms, clearly showing that their supposed objective and expert analysis is also underpinned by political incentives and economic rewards, undercutting the expertise-driven, depoliticised notion of the smart city consulting firms seem to peddle.

Figure 21: KPMG's chronology of urbanisation in India through government programmes/policies



Source: KPMG, 2021, p. 7

Coming back to cities, there has been significant pushback to the deployment of consultants from local actors in Pune as there is no significant observable impact that they have created qualitatively, as the next sub-section will show.

5.3.2 CONSULTANTS IN PUNE

In Pune, the journey began with McKinsey & Co. being hired to help create the Smart City Proposal in 2015. Despite standard government practice being to hire vendors who make the lowest bid, McKinsey & Co., whose consulting price was more than double of the lowest bid at around Rs. 2 crores (~ 240,000 USD) was hired by the PMC in 2015 (Times News Network, 2015). They were hired for their 'reputation', 'size', 'initiative in urbanisation in India and globally', and to ensure that Pune gets selected in the City Challenge as a potential smart city—a reference to being ambitious by working with an international consultancy to create a prosperous world city of the future (Gadkari, 2016; Times News Network, 2015). McKinsey & Co. helped PMC create their smart city proposal, which ranked number two in the City Challenge in terms of its overall score out of all the entries. Once Pune was selected in the programme, and the SPV formed to

implement projects, McKinsey & Co. were hired to be the Project Management Consultant in 2016.

They occupied this position till 2020, when journalists and elected representatives started raising objections to their involvement, the fundamental one being: is Pune getting its money's worth by spending crores on consultants? (Interview with Ravi, journalist, 12/12/22; Thevar, 2020). A reported 35 crores (roughly 4.2 million USD) were spent on them, with a payment of another 9 crores rupees (~1.08 million USD) expected to be made to them for their consulting services to the Pune SPV at the time this issue was raised, with further payments to them halted till a review of expenditure was conducted. As per my interview with Ravi, a journalist who was amongst those who questioned the expenditure being made on consultants, McKinsey & Co. cut their losses amidst the objections being raised and left without receiving the remaining payment of 9 crores rupees (~1.08 million USD) that they were expecting.

Interestingly, in my interview with the manager who headed McKinsey & Co.'s team working for the Pune SPV, the departure from Pune was painted in overwhelmingly positive terms. He claimed that they left because their contract was for a stipulated period which had ended, and that in his mind, their work in the city had been a 'big success' (Interview with Abhinav, Associate Partner, McKinsey, 9/12/22). There was no mention of any monetary issues, highlighting this constant futurism in which present-day outcomes hold limited significance, for the smart city has not arrived yet. Success of the smart city lies in testing, demonstrating, proto-typing, or even in just creating an ideal-type.

This brings us back to the point mentioned earlier in this chapter, that consulting firms help deliver the performance of smartness. They work closely with the national state, and as discussed in Chapter 4, at the national scale, the SCM resembles an exercise

in marketing—one that showcases and sells the idea of upcoming world cities in India that offer a lucrative future. This is primarily intended for a global audience, especially potential investors for whom the likelihood of success and confidence on future returns is of greater primacy than immediate, substantive changes to the lives of urban dwellers. Being the bridge between the national and global, consultants play a role in the marketing of smart cities.

Following McKinsey & Co.'s departure, PwC became their successors in the Pune SPV. They claim that McKinsey & Co. were asked to leave because they overcharge and do not understand the complexity of the governance consulting landscape in India, of which PwC is apparently an expert. Note here, that as mentioned earlier, PwC currently holds the greatest number of contracts from the Government of India, and they continue to work as the Project Management Consultants in the Pune SPV.

> There were issues around high costs and McKinsey's consultants hadn't really worked with governments before, and they did not really know what they were doing. The tenders they had issued were defaulted on. There was no documentation for the auditors. The Board of Directors took notice of this and removed them. McKinsey is also really expensive. *There is a joke amongst us that one email with a PDF report from McKinsey costs 25 lakh rupees [~30,000 USD].* – Interview with Vijay, consultant, PwC, 8/9/22; emphasis added.

This signals an internal competition amongst the 'Big 5' consulting firms themselves in entrenching themselves in the state—clearly some become more successful than others in achieving this, even within this monopolistic competition. What strategies and conditions allow some consulting firms to be more successful than others even within this monopoly, would be an interesting avenue for further research, as it would shed more light on this black box of the pervasive presence of consultants in the Indian state.

BUT WHAT DO THEY DO IN PUNE SMART CITY?

First and foremost, they coordinate amongst various state bodies. As has been documented, urban governance in India is highly fragmented with various state agencies with similar functions operating in the same jurisdiction (Sami, 2012; Weinstein et al., 2014). With networks that span across scales, from national to local, they can secure information and connections that allow them to coordinate amongst multiple state actors. These multiple state actors and institutions occupy varying temporal spaces, from the backward local corporation to the advanced SPV (Chapter 7 explores this temporal contestation in more detail). Consultants assist in the process of translating ideas across the temporal distance within the state itself and in the process, perform a key role in embedding ideas and practices of the smart state.

In the SCM, the consultants are the only actors that work across the scales of the state—from the national to the local. To quote a PwC consultant working in the smart city office, "Consultants help in collaborative storylining to the right stakeholders. They are people to focus only on that job. Individual departments cannot do that" (Interview with Vijay, PwC, 8/9/22). Here, 'collaborative storylining' speaks to the affective, nebulous, and aspirational element of smart cities—of an efficient and developed future that awaits through the usage of smart technologies. The reference to 'right stakeholders' reiterates once again that the SCM is intended for a targeted audience. Further, this highlights that consultants exploit the states' internal differentiation and pluralisation of governance for their entry and entrenchment in the state apparatus—a point mentioned at the beginning of this chapter. The following quote from Shweta, another PwC consultant, provides an instance of how consultants work across the scales of government and work on this 'collaborative storylining':

> [Responsibilities I had were] Making the city administration (Data Officer or Data functionary in the municipal corporation) understand why we are doing this and why it is important. What the local corporations would prioritise in work is what would get them recognition and awards. So, we had to tell them why this [smart city] work is important as well… If a city needed collaboration with another city (peer learning based on twin-city pairings), we would help facilitate that. For example, Bihar Sharif and Pune collaborated. – Interview with Shweta, consultant, PwC, 12/2/23

This consultant worked in the MoHUA in the national Programme Management Unit of SCM and looked over the implementation of projects pertaining to data collection and management in municipal governments in several cities. She coordinated between city governments in various States, and between city governments and the national ministry to make interests of various state agencies align. This is significant because it gives the role of the 'clincher' to the consultant, taking us back to the 'fourth lion' analogy and imagery I was given, and I started this chapter with.

It is important to highlight here that consultants are not sworn into the state as people's representatives via an election, neither do they go through the elaborate recruitment process which bureaucrats go through. They are also not bound by any publicly available code of conduct that bureaucrats are bound by. Furthermore, as they are not a part of the 'official' state apparatus, they are excluded from the ambit of legislation that is aimed at bringing transparency and accountability in government processes (such as the Right to Information, or the *Lokpal and Lokayuktas Act, 2013*).

As mentioned in Chapter 4, Pune has a strong municipal corporation with a historic legacy. The PMC's origins go as far back as 1858 when it was established as the Poona City municipality in the colonial period (PMC, n.d.). There is also an active civil society in Pune, keeping with the legacies of active political engagement and social movements in Maharashtra (Deshpande & Palshikar, 2016; Mathew, 1986; Roy Chowdhury, 2018; Waghmore, 2012). Maharashtra is also one of the federal states that has

implemented decentralisation of power and administration relatively effectively (Jadhav, 2019). Therefore, there was sustained and independent opposition to 'external' consultants in the SCM, with the involvement of McKinsey & Co. being put under scrutiny.

In 2020, a powerful local BJP politician, Girish Bapat,[21] raised questions about McKinsey & Co.'s involvement and the payments made to them. Bapat used to be the Standing Committee Chairman of the PMC and was elected as a Member of Parliament from Pune constituency in 2019. With his pressure, the Board of Directors of the SPV decided to review McKinsey & Co.'s work and the hefty payments that were made to the consulting firm, leading to a non-renewal of their contract with the Pune SPV (Thevar, 2020). Thus, pressure put by political representatives and journalists such as Ravi ultimately led to their departure.

But has the same been the case in other smart cities? It appears not. In other selected cities where the existing municipal corporation has been relatively weak or absent, consulting firms have been able to exert greater influence over the SPV, and the SPV, in turn, has been able to push the firms' agenda forward with little resistance or opposition. Consider the following two quotes:

> In Indore and Surat, where the SCM has worked well, there was also a tussle between the ULB and the SPV, but then the two were integrated and *the ULB became the working arm of the smart city.* – Interview with Vijay, consultant, PwC, 8/9/22; emphasis added

> KPMG holds all the data that smart city produces in Nasik, and to get that data is also a *tedhi kheer* [difficult task]. *Sab kuch woh hi control karte hain* [They control everything]. And I think that is true for most cities that don't have a powerful municipal corporation or SPV. In such cases, the consultants have the scope to do more things. – Interview with Reena, Indian Smart City fellow, 24/3/23

[21] Real name has been used here as this is public information.

Both these quotes highlight that the relative strength of the local state determines the extent to which consulting firms can control the urban governance landscape. As the examples here indicate, the stories in Indore, Surat, and Nasik smart cities appear to have been different. While consulting firms' entry in the state apparatus is enabled through the state's internal differentiation, their entry does not create any kind of pragmatic cohesion in the state's workings or structure. Instead, what the SCM brings to light is a disjuncture within the state, between the smart state and older state formations—something I analyse in detail later in Chapter 8. Any cohesive narrative that is created and projected through the 'collaborative storylining' mentioned earlier and the marketing exercises mentioned in the previous chapter, is geared towards attracting capital by publicising smart cities as lucrative destinations for investment with their futurism and smart governance structures, thereby facilitating capital's territorial expansion.

From propagating smart cities to formulating projects and plans, and executing them on ground, consulting firms have had a role. Uttara Purandare (2023, p. 4) through her fieldwork in Pune and Surat smart cities also finds that in the SCM, "the government requires consultants to be present in every part of the policy process from design to procurement, implementation, to review". Through this process, they are able to create the conditions that facilitate their further involvement. This brings the question of democratic accountability of consultants in governance—a concern that reverberates throughout literature on consulting firms (Bogdanich & Forsythe, 2022; Birkinshaw & Srivastava, 2023; Hurl & Vogelpohl, 2021; Mazzucato & Collington, 2023; Purandare, 2021; 2023; Sami & Anand, 2019; Vogelpohl & Klemp, 2018).

LOCAL PUSHBACK TO THE GLOBAL CONSULTANT

In Pune, this heavy-handed involvement of consultants has not been received well at all and has been significantly questioned. Elected members of the PMC from the ABB

areas, viewed the involvement of consultants as an encroachment on their domain—both in terms of knowledge and in terms of running state affairs. As the following two quotes demonstrate, there seemed to be a disdain for consultants, for they were perceived as being airy 'outsiders' that made inroads based on their global reputation, but seriously lacked substance and knowledge about the local context.

> "Yes, initially they got a big company, McKinsey as the consultant. *Par woh itne faaltu hain. Hamare office mein baithkar, humse poochkar, hamare suggestions lekar apni reports mein present kar dete the*. *Unki koi zaroorat nahi thi* [They are so useless. They sat in our office, asked us for suggestions, and presented them in their reports. They were not needed.]
>
> Crores of rupees have been wasted on them. They were 100% a failure. They brought in no new concepts, just used our suggestions to put in their own presentations. *Naam bade lakshan chhote. Bas bada paisa lekar chale gaye* [They have a big name, but little impact. They just took the money and went away]. They're just a Hi-Fi company who came in their *suit-boot* and charged crores for it." – Interview with Pradeep, local politician, Pune, 20/2/23

> "I think spending on consultants is a waste of money. We have engineers at the PMC. What about their knowledge? Why not utilise them? The consultant comes and is put in charge of all the planning and a contractor is hired to execute the projects. The consultant also does the quality checking of the work. What will the PMC do then? Just move around papers [files] from one office to another?.... They are paid a lot of money also. If they are being paid so much, we should see a difference in the speed of the work, the quality of the work as well. The work that they do should be different from traditional work, should be smart. We should have seen that." – Interview with Vikram, former corporator, Balewadi, 6/2/23

There was a clear sense that state resources were being wasted on consulting firms. Ironically enough, following from NPM, the use of consultants is often justified through the rationale that it will make the state more efficient in its functioning and utilisation of resources. By saying that the consultants' work should have been different from "traditional work" and should have been "smart" in the above quote, Vikram highlights that as the smart actors and institutions of the future, who are supposed to bring about an advanced thought process, the consultants were expected to create a prosperous smart city,

and do so with speed. However, their work in Pune showcases a different story, as the work they performed was similar to the work the local corporation was already doing.

Contrasting and contesting the narrative that is oft repeated in global and national discourses that ULBs lack capacity or knowledge, corporators actually turned the allegation around and claimed that the incapacity lay with consultants. The image painted to me by former members of the local government was that the work that consulting firms did in the Pune SCM was hollow. Thus, the embedding of consultants in the state apparatus appears to be another source of contestation between the PMC and the SPV.

> All they said is 'Escalate this to the next level' and they took 1.2 crores [rupees] for it. *Khoon paisa hamne lagaya hai* [We have put in the hard work and money]. We only work with the government, and we know how things are done on the ground, and we were the ones doing the actual work. – Interview with Dilip, Architect, Pune, 24/3/23

Local actors involved in implementing the SCM in Pune, apart from the SPV, criticised the use of consultants (as shown in the above quote), particularly for their lack of ground-level understanding of the city. Interestingly enough, the global consultants I encountered in my fieldwork and ones that work in the Ministry of Housing and Urban Affairs in Delhi are very much from India. As mentioned before, they also highlighted that they were involved in governance consulting to contribute to the 'nation'. Evidently, making global smart cities is seen as a pathway to nation-building—to attract foreign investment, capital, and people. As highlighted earlier, there are developmental logics encoded into ideas of a smart city and its promise of digitalisation. However, the way that the programme has been pitched since its inception is that it is about creating a sustainable and inclusive city that is for the local people and privileges them and their needs. There is a palpable contradiction between the two and these contradictions reverberate throughout my empirical data. They are evident through the disjuncture between the ideational futurism of the smart city and its grounded execution in the present, informed further by

the legacies of the past. The ‘nationalist global’ consultant might function as a bridge between the national and the global but fails to be one between the national and the local in the case of Pune smart city, even if the attempt has been to make them into one.

At the start of the SCM in Pune, there were meetings conducted with citizens’ groups in Aundh, Baner, and Balewadi. An incident a few residents recounted to me was that in one of these initial meetings concerning the pilot projects, citizens had a lot of objections to the proposal that was shared with them. However, instead of any government official fielding their questions, a consultant from McKinsey & Co. was pushed at the forefront, who gave them a ‘sales pitch’ and was asked to answer all the citizens’ questions, infuriating them even more (Interviews with Rakesh, resident, Baner, 7/12/22; Radhika, resident-activist, Aundh, 22/11/22).

This incident is noteworthy for several reasons. Firstly, in this instance, the consultant became the face of the state so to speak, reinforcing the blurring of state boundaries that was referred to before, and demonstrating the entrenchment of consultants in the state apparatus. The ‘expertise’ of the consultant was deployed in a bid to contain and co-opt the messy and political process of public deliberation, reiterating the depoliticised vision of a smart city.

Secondly, through this instance, what can be witnessed is a glimpse of fundamental changes taking place in the Indian state, and the emergence of a smart state that operates on different logics, and for different purposes than traditional state formations. While Chapter 8 comments on this in more depth, it is important to reiterate here that consultants are not elected by the people or accountable to them in any way. The state is supposed to be accountable to its citizens in a democratic setup, as the state represents the institutionalisation of political power in society, bearing authority and

legitimacy. When consultants are hired for everything, a lot of the responsibility for planning and decision-making is passed on to them, undercutting the traditional state-citizen contract, and the checks and restrictions on the exercise of power and authority that exist by virtue of that.

Finally, this instance also demonstrates a rejection of the 'citizens as recipients of services' model that the smart state pursues, by citizens themselves. It might serve the interests of capital to alter the state-citizen social contract through programmes like the SCM and make the state into a service-provider functioning like a business, but on the ground this model has not found wholesale acceptance amongst citizens themselves—even amongst the wealthier citizens of the ABB areas.

Consulting firms might be propped up as the 'fourth pillar' of the state, but they are tied to their own pursuit of profit, and to the strategic interests of capital above all else. Their work is shadowy—both in terms of being largely obfuscated, but also in terms of looking like they are performing the work of government, but that is not really the case. All it takes is to shine a light to clearly see the shadow.

Manifestly, in Pune smart city, the smartness of consultants has been questioned, at the very least. Another point of contention which was highlighted across several interviews with residents, journalists, and local corporators was the 'outsider' status of the consultants. There was resentment against the use of 'international' consultants who are not from the city or familiar with the city at all, as opposed to using local experts in making and implementing smart city plans. There was a sense of disconnect with them, and even the SPV that hires them in the first place. It was reiterated in several interviews that after the first few meetings, Pune Smart City Office halted contact and

communication with citizens altogether. Consultants' presence and ideas were seen as an unnecessary imposition. The quote from a local journalist below illustrates the same:

> Was the consultant from this city or outside? They had brilliant ideas, but why '*thopofy'* [impose] ideas on people – ask people what they want. If you knew the metro was coming up in these areas, why make footpaths that would need to be broken down. – Interview with Tejashree, journalist and resident of Aundh, 14/12/22

With significant local opposition to smart city projects, consultants could not even deliver the speed which they supposedly bring on the ground. In my interviews with consultants, the lack of cooperation from the local municipal corporation, and the lack of coordination between the city government and national state agencies were highlighted as some of the challenges that they faced in their work. They emphasised that it took a lot of effort to 'convince' local municipal officials of the smart city projects to get them implemented—perhaps an endeavour in bridging the temporal distance within the state. However, my empirical data shows that this endeavour was also unsuccessful and perhaps could never be successful by any conventional assessment based on outcomes, for the smart city is always in the process of becoming, never being.

5.4 CONCLUSION

In this chapter, I have discussed the role that consultants play in propagating the abstracted notions of smart city and their role in the implementation of the SCM. For these consulting firms, the smart city exists in a perpetual future which is divorced from all other contextual socio-political, geographic, historical, and economic factors. This Future-Future of the smart city serves to create a spatio-temporal bubble that can promote entrepreneurial governance, privatised, elitist visions of the city, and become a lucrative site for capital's territorial expansion.

The state seeks to partner with these consulting firms for their reputation, expertise, global networks, and supposed foresight, in a bid to be ambitious and enhance its own position and power in the international sphere. As a result, the proximity between consulting firms and the state is most evident at the national scale where the pressure to compete internationally in this era of globalisation is felt most acutely.

In the SCM, consultants also help the state deliver the performance of smartness in various ways from assisting in marketing smart cities to 'selling' them to citizen-consumers. In this chapter, I discussed how consulting firms attempt to entrench themselves across the state apparatus. I argued that consulting firms utilise the pluralisation of governance and the internal differentiation of the state to enter and entrench themselves across the state apparatus. As the sole common actor working across the scales of the state for the SCM's implementation, consulting firms are able to leverage their unique position and seek to establish themselves as another 'tier' of government. In the SCM, consulting firms have performed core governance functions—from formulating policy designs at the national scale to overseeing their implementation in various cities. However, their performance of governance roles should not be mistaken for consulting firms becoming the 'fourth pillar' of government. Paradoxically, the state apparatus that opens spaces for consulting firms to enter also becomes a source of resistance to them. In Pune, elected municipal officials contested their involvement, arguing that it took away from their work and citizens questioned the 'expertise' or 'smartness' that consultants bring to the table.

While consultants' work may not have produced substantial differences in the execution of the SCM projects, they embed logics and practices of making the state 'smarter', in ways that create a disjuncture with ideas, practices, and obligations of traditional state formations while raising questions of accountability. When it comes to

smart cities, in India and elsewhere, consulting firms have been pivotal in promoting the interests of capital, particularly those of the IT industry. Thus, through this chapter and the previous one, I have answered the first core question informing this thesis on what smartness really is and whom it serves.

In the next chapter, I analyse the area-based development component of the SCM, demonstrating how it has served to further speculative urban development in Pune. In doing so, I explore the future of the smart city that is projected and planned from the present—its Present-Future. In Chapter 7, I analyse the temporal contestation between the PMC and the SPV in Pune, exploring the future of the smart city that is imagined from the past in the process (Past-Future). In Chapter 8, which is the concluding chapter, I tie up the findings from all the empirical chapters to provide a cohesive picture of the deeper transformations underway in the state in India in the contemporary moment.

CHAPTER 6: SMART FUTURES: SPECULATIVE URBANISATION THROUGH THE SCM IN PUNE

"ABB [Aundh, Baner, Balewadi] is a classic case of how real estate development happened under the name of smart city. Aundh was the cover page, but Baner and Balewadi were the meat of the thing. They had the highest number of land parcels to be developed. There were real estate decisions and interests involved in the selection of these areas. Half of the city developers are involved with politicians, hand-in-glove with the bureaucrats too… Before the smart city development was started, real estate rates went up. The developers got a bargain in the whole deal. It [smart city] was a conscious decision to serve a certain industry. Since then, carpet area of properties has increased manifold, and real estate prices in that area have doubled. Land-owners and developers have also benefitted. Local politics has played a role too. Most politicians are builders, and bureaucrats are involved with them too."

- *Interview with Rakesh, resident-activist, Baner, 7/12/23*

On a rather pleasant December morning in Pune, I paid a visit to the office of an active civil society member in the city—Rakesh. He had been involved in the SCM in its initial phases of implementation, being a member of a citizen's group representing Baner, one of the three areas chosen for area-based development in Pune under the SCM. At the beginning of our interaction, he added the caveat that he considers himself a 'socially active citizen', and his views are coloured by that position. Having worked in the IT sector as a corporate professional for a few years, Rakesh had made a switch to the social sector, setting up his own non-profit organisation. In many ways, Rakesh's unique position paved the way for a long and rich conversation. Having been in the IT sector, he was quite familiar with the smart city discourse; as a 'socially active citizen' who had engaged closely with government, he was a participant in early discussions with the Pune SPV when smart city projects were being proposed, and as a resident of Baner, he had lived through the changes in his locality after the SCM had been implemented.

While my initial fieldwork observations had made it apparent that Baner and Balewadi had experienced few changes by way of the SCM and had instead become areas of rampant real estate development, my conversation with Rakesh was the first one that brought to light the hard contours of this aspect of the smart city generated development.

The above quote demonstrates how this happened specifically in Pune. From the selection of these areas under the SCM, to their actual development, there seems to be an eye towards real estate development under the garb of smartness. This is the future of the smart city that is imagined and projected for the present, for the gains to be made in the present. In other words, this is the Present-Future of the smart city, akin to Adam and Groves' (2007) conceptualisation of the same discussed in the literature review in Chapter 2. The suggestion here is not that Baner and Balewadi's rampant, rather unsmart, environmentally unsustainable development was entirely pre-meditated. Rather, a curious mix of the vision and design of the SCM with the politician-builder nexus in Pune, and the associated political economy produced the outcomes I witnessed during my fieldwork.

In Chapters 4 and 5, I discussed the Future-Future of the smart city. I examined the role of urban aesthetics in driving the construction and execution of those ideas of futurism and the role that consulting firms have played in the SCM. I also discussed how smartness is a performance intended to attract capital and facilitate its expansion, and that consulting firms assist in the delivery of that performance. Building upon this, in this chapter, I further interrogate the futurism of smart city by analysing the area-based development approach of the SCM and examine its implications for the actual development of Pune's cityscape. In the process, I identify a second kind of futurism of the smart city—its Present Future (refer to Table 2 in Chapter 1 for a snapshot of the three futures identified).

In particular, I argue that the SCM promotes the creation of certain spatio-temporal zones within the city, which I refer to as 'time enclaves'. These zones, while geographically contiguous to other parts of the city, are envisioned to operate in a future time. The temporal exceptionality of these zones serves to further capitalist expansion and facilitates speculative real estate development, as the rest of this chapter will demonstrate.

Thus, by exploring the material reasons behind it, this chapter answers the second research question posed at the beginning of this thesis, on why the smart city is always envisioned at a point inhabiting the future. Finally, these time enclaves exacerbate urban inequalities and alter existing spatio-temporal relations amongst areas within the city. They also fragment urban governance further, as the next chapter will demonstrate.

As argued throughout this thesis, smart cities are set at a point in the future that has not yet arrived, creating an ideal cover for circumventing any critique directed towards its workings. The depoliticising agenda of the smart city in its conception makes it possible to dis-embed it from material realities of the present. Smart city is framed as an abstract and clinical form of developing cities, guided by technocratic expertise. The areas chosen for development under the SCM are referred to as 'test labs' or 'living labs' that are experimenting with innovative solutions which can guide urban development in other cities, by working as 'lighthouses' (MoUD, 2015; UN Habitat and MoHUA, GoI, 2023).

This chapter shows that despite a failure of the SCM projects, the tag of 'smart city' has furthered speculative real estate development in Baner and Balewadi because of their envisioned occupation of a unique temporal space of future prosperity, future opportunity, and futuristic living. As Rakesh astutely analysed in the quote I opened with, Aundh served as a 'cover page'—it was an area that had already been largely developed previously. Aundh constituted an outer limit of Pune in the 1970s and 1980s and served as an entry/exit point to the Mumbai-Pune highway.

The adjoining areas of Baner and Balewadi were village areas that were included in the municipal limits of Pune in the late 1990s. These areas were also included in the city's limits once the geographically proximate area of Hinjewadi saw the growth of an IT industry from the 1990s, after Narayan Murthy started his now multi-million-dollar

company, Infosys, there. Several pieces of land were acquired by builders, some of which were handed over to the PMC in the ABB areas to develop 'amenity spaces' for the public. The farmers cultivating the land there were paid to vacate it, creating the presumed sterile 'test labs' on which smart city projects were to be executed. My interviews with various respondents indicated the same, with some excerpts provided below:

> Pune was to hold the National Games over 20 years ago. For the games to take place, a stadium had to be developed in which all kinds of sporting events could take place. This stadium was in Balewadi. To create connectivity to the stadium, a road was created that passed through Aundh and went till Balewadi. Earlier, Aundh had just a few institutes and just farmland in the area, but once the road was created, houses and markets started developing in the area. – Interview with Reetika, journalist, 9/9/22

> My family originally belongs to Pune; my ancestors were farmers in this Aundh area only. Their land was acquired by the government in the 1960s-70s and they were offered compensation. – Interview with Vinayak, resident, Aundh, 7/12/22

> Aundh and Baner had been developing since 2005—local corporators had used their funds to develop these constituencies. Balewadi was chosen last. There was scope in these areas to do smart city work. Development also happened because of its proximity to Hinjewadi. A migrant settlement society—Sindh society has been there in Aundh since the 1970s. At that time, Aundh came on the city fringes and University Circle constituted the city limits. – Interview with Tejashree, journalist, 14/12/22

> Baner-Balewadi were included in the PMC limits in 2002. Before that, they were under a *gram sabha* [village council]. These plots were farmlands. The land was acquired by builders, who gave a compensation to the farmers for surrendering their land. – Interview with Niharika, former corporator, Balewadi, 3/2/23

These three areas were in some senses pre-identified beforehand for smart city development in the city as a result of parameters set for the selection of smart city areas by bureaucrats and politicians formulating the SCM at the national level. Interestingly, the people who mentioned this to me were closely embedded in Pune's local politics, some of whom have been quoted as below:

> Arushi: Why were Aundh, Baner, and Balewadi chosen as the areas for area-based development?
>
> Sushant: That is what our question is. This selection has come from the top. The corporation gets 100 crores rupees per year for smart city work. If they just wanted to show that they have given some money to do work for showcasing, they could have shown Magarpatta City [a township near Pune]. – Interview with Sushant, former corporator, Aundh, 30/1/23

> In 2015-16, Balewadi area was not very developed. It was upcoming. It was [an] urban village before. So higher-level bureaucrats and politicians had incentives from the private sector [to develop it]. – Interview with Radhika, resident-activist, 22/11/22

> There was a city survey conducted based on the Central government's guidelines and the criteria they had set. ABB were selected according to that. – Interview with Pradeep, politician, 20/2/23

These respondents highlighted that the local corporators who represented ABB had no key role to play in identifying these areas for smart city. While this could be an expression of disgruntlement from being excluded from the SCM, in many ways, it reiterates yet again, the clash and contestation between the SPV and PMC that has characterised the SCM's implementation in Pune. When I asked officers and consultants in the Pune SPV about the selection process, I received a by-the-book response that it was done based on a citizens' poll, which as I established in Chapter 4, was a largely hollow exercise with limited participation, scope, and meaning.

Returning to the areas chosen as lighthouses, from the 2000s till 2015, several plots of land remained 'empty' in Baner and Balewadi, having been acquired by the PMC or by real estate developers. But since the SCM was started in 2015, real estate development has increased exponentially in these areas. See Figure 22 below for instance, which captures the changes in Balewadi through Google Earth's Archives. While many fringe areas of Pune have experienced real estate development in the last couple of decades as a result of the ongoing agrarian to urban transition, Baner and Balewadi have

experienced this at a much faster pace relative to other fringe areas. Baner in particular has repeatedly recorded some of the highest real estate sales in the last few years, in both commercial and residential sectors, in the entirety of Pune (Knight Frank, 2017; 2023).

Figure 22: Satellite imagery of Balewadi in 2012 (above; pre-SCM) and 2024 (below; post-SCM)



Source: Google Earth Archives

I explore these themes in the rest of this chapter as follows: first, in section 6.1, I unpack the lighthouse approach of the SCM and the selection of ABB under area-based development in Pune. Then, in section 6.2, I examine the implication of this approach along with how and why it has spurred on real estate development that seeks to create these zones of future prosperity for gains to be made in the present. I also look at the local politician-builder nexus in this process. I close in section 6.3 with briefly examining how the SCM has altered the spatio-temporal order between the 'old city' and the 'smart city'

in Pune. Here, 'old city' refers to areas that are more centrally located in the city's geography and have been a part of Pune historically. In the next chapter, I build upon this and analyse how the altered spatio-temporal order of the city can be mapped on to the local state in Pune, revealing how the SCM has spatialised the state across temporal space, shaping the governance it delivers as well.

6.1 CREATING 'TIME ENCLAVES': THE LIGHTHOUSE APPROACH OF THE SCM

> "The Smart Cities initiative is like a test lab where in 3-4% of the area of the city, initiatives like placemaking, Adaptive Traffic Management System (ATMS) are developed. The urban local body works hand-in-hand with the Special Purpose Vehicle to identify places for replication. The smart cities projects are lighthouse projects to guide other cities and areas for their development."
>
> – Interview with Chief Knowledge Officer, Pune SPV, 7/9/22

The lighthouse approach is a unique feature of the SCM—it combines notions of the entrepreneurial city with logics that inform zones of exception, like special economic zones (SEZs). While inter-related, both these notions are distinct. The entrepreneurial city agenda aims to create a 'good business climate' and tasks city administrators with it, through the design of policies and programmes that are speculative in nature and can attract capital (Harvey, 1989; Jessop, 2002). Zones of exception[22], on the other hand, also aim to create sites that are lucrative for capital's expansion and provide a territorial fix to it, but unlike city-spaces, are usually free from ordinary forms of governmental regulation (Slobodian, 2023).

The area-based approach of the SCM draws from the two in its vision—by selecting certain sites within the city-space as exceptional spaces, separate from the rest of

[22] The idea of a 'zone of exception' as applied spatially, comes significantly from Giorgio Agamben's (1998, 2005) work in which he argues that a state of exception is not a mere temporary state of suspension of law, rather a feature of the structure of governance of modern states. In zones where this state of exception exists, individuals are excluded from normal legal order and exist in a dis-embedded state between law and lawlessness, stripped of citizenship rights, such as in refugee camps. Scholars like Ananya Roy (2009) and Aihwa Ong (2006) have applied this concept to peri-urban fringes, industrial corridors, and SEZs to discuss how these zones are created through dispossession and to facilitate capital's expansion.

the city, but retaining the entrepreneurial, speculative development character. The exceptionality of the areas selected under area-based development does not lie in that they are governed by a different set of regulations, but that they are envisioned to occupy a different temporal space from the rest of the city, despite being geographically contiguous to it. However, there exists another governing body for them in conjunction to the local corporation—the SPV. While the legislation and legal norms governing the lighthouse areas are not different from the rest of the city as may be the case in an SEZ, the SPV is representative of an emergent smart state that is not necessarily exceptional, as much as it is distinct from certain practices and logics that govern traditional state formations. It is important to underscore here before proceeding further, that this is the vision of the lighthouse approach of the SCM, not necessarily its precise manifestation in execution.

Returning to lighthouse areas, their exceptional quality positions them in a space of perpetual futurism, at least notionally. Thus, they are 'ahead' of the rest of the city, following linear developmental logics discussed earlier in this thesis, particularly in Chapter 1. Their exceptional positioning in a future space is a result of the supposed expert-driven experimentation and innovation that is driving their creation. The reference to the 'test lab' that the Chief Knowledge Officer makes in the above quote reflects that. This is also akin to Halpern and Günel's (2017) idea of the 'living labs' of smart city that are always in the prototype mode, which was discussed in the literature review chapter. As Chapter 4 established, in Pune, Aundh, Baner, and Balewadi were considered to be easy sites for the SCM to be implemented in—the smart students in class that were being selected to become smarter as some of my respondents noted (Interviews with Ajai, civil society activist, 10/10/22; Reetika, journalist, 9/9/22). Here, the reference to already being smart is a reference to these areas already being developed with certain amenities in place,

and possessing a proclivity to being modernised further by virtue of the proximate IT industry.

There is one key element that characterises the idea of a lighthouse—replicability. As the vision document of the SCM states,

> The Smart Cities Mission of the Government is a bold, new initiative. It is meant to set examples that can be replicated both within and outside the Smart City, catalysing the creation of similar Smart Cities in various regions and parts of the country (MoUD, 2015, p. 5).

It is intended to work as an exemplar, because it is experimenting with futurity in the present—bringing ideas and projects of a prosperous world city to the under-developed city of the present, encumbered by histories of colonisation. To illustrate this further, I provide a longer excerpt below, from an interview I had with Varun, a senior PwC consultant working on SCM projects, especially on the IT projects, in several smart cities across India:

> *Arushi:* Why do you think something like the SCM was started when we have other urban development programmes like AMRUT [Atal Mission for Rejuvenation and Urban Transformation] also in place?
>
> *Varun*: Multiple reasons. *One of the reasons was that the government wanted a demonstration effect.* They wanted to show that it can be done. *They picked one area under area-based development. Can you demonstrate that it can be done? Then there can be follow-on projects*. For example, the concept of 'smart roads' was not just about making the road itself but to have an integrated development of the road, from below the road, to above it. It is very expensive and difficult to do for all of the city. *However, if people start liking it, then funding can be secured for all other areas of the city, and even other cities*. Smart city was to work as a model.
>
> *Arushi:* For whom is this demonstration effect for?
>
> *Varun:* It is for everyone—politicians, officers, engineers, and citizens. *Conversations change when people see the ideal type in practice*. *Sab ko lagta hai ki yeh ho sakta hai [Everyone thinks that it is possible for this to be done*.] ULB engineers think that this is possible—it can be done. *They can then think far ahead. They can have a vision and no longer stick to just small tenders*. They are more aware of new ideas, possibilities. Everyone benefits.
>
> The PM inaugurated the Varanasi Temple project and the Ujjain Temple project. Nobody thought that this could be done. But now that it has, the benefits to the

> local economy are tremendous. The temple capacity has increased 10-15x, people's aspirations have increased. It has even given benefits to nearby towns and cities.
>
> Similarly, one bicycle road has showed stakeholders what can be done. *Children can bike on it and children from other areas can raise a demand to have a bicycle lane in their own areas and fight to have it. Engineers and politicians see something new.* – Interview with Varun, consultant, PwC, 24/6/23, emphasis added

Varun attributes the uniqueness of the SCM to its area-based development approach that seeks to create models that can provide a demonstration effect: the government wanted to 'show' that it can be done—that the ideal type can be put into practice. There is a fundamental dissonance that this statement and the concept of a lighthouse carry, which extend beyond the issue of semantics.

'Ideal types' by their very definition are ideal—they exist in the realm of thought and abstraction. Practice, on the other hand, is unsanitised and embroiled in the pulls, pressures, and mutability of material realities. Ideal types, when brought into the fold of practice, inevitably lose that pristine quality. Similarly, a future time existing in the present, does so by being embroiled in the latter. This may be a seemingly obvious, innocuous, and intuitive awareness that everyone carries. However, in holding up these area-based development projects as ideal types that are produced are in sterile lab-like conditions, what is missed are the relations of power that run behind perpetuating these notions. What is erased, why, where, and how, which 'futures' are pursued and experimented with are politically driven decisions. As Pradeep, a local politician of Aundh said when asked about the selection of ABB as lighthouses:

> There was a city survey conducted based on the Central government's guidelines and the criteria they had set. ABB were selected according to that. The criteria directed that the selected area should have a slum in it, should be a developing area, should be a place where there is open land, [and] which is easy to develop. – Interview with Pradeep, politician, 20/2/23

The decision to include a slum area, as the case of Pune shows, was evidently a tokenistic inclusion driven by pressures of democratic politics to extend beyond the elite-centric nature of the SCM; the emphasis on 'open areas' and 'developing areas' was to cater to the national state's entrepreneurial, world-city making ambitions, and encourage speculative development. The lighthouse approach itself lacks inclusivity and democratic participation, evident in the selection of a minor area of the city where a majority of public resources are concentrated. A common refrain amongst my research participants was that 'who would not want their area to be smart?' There is also an assumption that if one area of the city progresses to this future developmental state, the other areas will automatically follow, yet again exhibiting how abstract the ideas of smart city in this programme are. This approach carries the seeds of the smart state's practices but sits at odds with the political obligations that the state is typically expected to contend with. The inclusion of a slum redevelopment project, or the tussle between the PMC and the SPV stem from this dissonance.

The SCM, in its operation, reveals another facet of the anti-politics machine, the temporal one—another modality by which power conceals its own workings. The futurity of the smart city converts geographically proximate spaces into distant ones, widening disparities. In doing so, it creates even more space for capital's expansion, for if a space perpetually exists in the future, it holds a perpetual promise of profitability. Through practices and processes of speculative urbanisation, capital is not seeking just a fix in geographic space for its expansion, it is also seeking a fix in temporal space. Here, I refer to a spatial fix in Harvey's (2001) second sense of the term: the opening of fresh sites for capitalist accumulation to take place. I argue that this represents a new modality for the accumulation and expansion of capital.

Take for instance, the statement that Varun makes in the above excerpt, "However, if people start liking it, then funding can be secured for all other areas of the city, and even other cities". In the case of the SCM, it would be people liking the cloud-backed CCTV cameras, the public Wi-Fi units, or the smart roads in the future because they want to emulate what these time enclaves are creating through their experimentation and supposed advancement. This reiterates the entrepreneurial character of the SCM but also highlights a key feature of the smart state that I will discuss in depth in Chapters 7 and 8—that it is not simply aiming to create a 'good business climate' to facilitate capital's expansion through this programme but actively aiming to generate 'demand' for the business. While so far, neoliberal policy agendas and concomitant structural changes in the Indian economy have made businesses co-producers in public policy (Mathur, 2014), the SCM highlights how the state seeks to become a co-participant in enterprise.

This brings us to the role of business in politics: the growth of politicians who are hand-in-glove with real estate developers or own real estate businesses themselves. The close nexus between real estate developers and politicians has developed most prominently after economic liberalisation in India, with land becoming monetised through changes in governmental regulation that liberalised land markets and transformed land into a tradable real estate asset (Balakrishnan & Pani, 2021; Shatkin, 2018; Sami, 2012).

In Maharashtra, especially western Maharashtra, this growth in real estate politicians is closely linked to the agricultural transformations that took place in the region 1960s onwards. The surplus capital that was generated through sugarcane cultivation after the Green Revolution[23] was either invested into real estate by farmers themselves, as evident in Magarpatta City (a private township outside of Pune), or the land was sold to

[23] Refer to Chapter 2, footnote 12 on page 82 for a brief explanation of the Green Revolution.

developers and wealth consequently generated was funnelled into launching political careers. The Nationalist Congress Party, with Sharad Pawar[24] as its leader played a key role in bringing this rural agrarian capital into Pune's politics and development as well (Balakrishnan, 2019; Sami, 2012; Interview with Pramod, academic, Pune, 19/10/22).

Liberalisation also created a fertile ground for speculative real estate ventures. Small-scale manufacturing firms and even state enterprises began monetising their land assets rather than focusing on production. This trend led to the displacement of industrial activity in favour of high-value real estate developments, such as gated communities and commercial hubs (Balakrishnan & Pani, 2019). Lavasa Lake City, another entirely privately built and managed township outside of Pune is an example of that, with the city being developed by Lavasa Corporation Limited, a subsidiary of Mumbai-based firm, Hindustan Construction Company (Parikh, 2015).

Lavasa was conceptualised as a mix of Davos in Switzerland, Cambridge in Massachusetts, and Portofino in Italy and developed as a lucrative and attractive destination for international capital. As Searle (2010) argues, real estate relies on speculation for profit, which is supported through the creation of alternate futures. These imaginaries of an alternate future are characterised by uncertainty as they are premised on conjectures. In imagining another future, they represent a "negation of existing conditions" by rejecting and seeking to reform the very societies that they emerge from. (Holston, 1989, as cited in Parikh, 2015). Thus, speculative real estate development is an endeavour that produces a certain kind of temporal space, for the expansion and accumulation of capital.

[24] Real name being used here as he is known public figure.

So far, in this chapter, I discussed the lighthouse or area-based development component of the SCM. I argued that through this approach, the SCM intends to create time enclaves within the city, which are marked by an exceptionality, as they are envisioned to operate perpetually in the future, disassociating them from the rest of the city-space through temporal distancing. In supposedly experimenting with futurity, these time enclaves further speculative real estate development. Thus, the SCM reveals how temporal distancing of the smart city is also a political endeavour. The unreachable utopia of the smart city opens temporal space for capital's expansion and accumulation. In the next section I discuss the material consequences of the lighthouse approach, as evidenced in Pune.

6.2 LIGHTHOUSES: ZONES OF SPECULATION AND REAL ESTATE DEVELOPMENT

> Arushi: A common thing I have heard from citizens is that they want smart city development in their areas as well. They are unhappy that the projects have only been restricted to the ABB areas.
>
> Pratap: Yes, I have heard a similar thing too. The thing is that Baner and Balewadi areas have rapidly developed in the past four years due to smart city projects. As a result, builders have developed more flats etc. there and they are all sold out. Property prices have gone up. Seeing the rapid development in these areas people want smart city projects in their areas too. *Par jo central policy hai usi se chalega* [But things will work according to the central policy]." – Interview with Pratap, Engineer, Pune SPV, 29/11/22

It is undoubtable that the SCM has accelerated real estate development in Baner and Balewadi, through its tag of 'smart city', which ear-marked these areas as prominent and upcoming ones. Figures 23-25 below capture some of the rampant real estate development underway in these areas. According to the multi-national real estate consultancy, Knight Frank, in 2017, the west Pune 'micro-market' which comprises ABB and adjoining Hinjewadi and Pashan areas, was the most lucrative in the entire city for setting up office spaces. To quote them,

> According to recent media reports, a potential deal involving large office space assets in the western region of Pune is being negotiated at yields north of 7%, which was unimaginable until a few years back. This deal can set a benchmark for future deals in office space acquisitions (Knight Frank, 2017, p. 136).

Knight Frank publishes its 'India Real Estate' report each year, and year-on-year, west Pune has emerged as the top contender for real estate investments. In fact, in the first quarter of 2024, Pune witnessed a 56% rise in sales value of residential real estate from the previous year to Rs. 17,837 crores (approximately 1.98 billion USD) and a breakdown of sales in specific locations in the city showed that Baner recorded the highest number of residential real estate sales worth Rs. 880 crores (roughly 97.6 million USD; Punekar News, 2024).

Knight Frank, like the consulting firms I discussed in the previous chapter prides itself on its global expertise in real estate, providing property valuation services, investment advisory services, and market intelligence services, amongst others. Unsurprisingly, the firm has also been critiqued for furthering uneven development, by catering largely to a high net-worth clientele for whom it identifies these speculative, investment opportunities (Nethercote, 2022).

In the previous section, I had explained how through the SCM, the smart state is not simply aiming to facilitate the private sector, but has aimed at some level, to generate demand as well, perhaps also evident in the mandatory deployment of multi-national consulting firms across the board. The quote from Pratap, a PSCDCL engineer, mentioned earlier, further suggests that through the SCM, the state is encouraging speculative development, as he mentioned that other areas in Pune want smart city projects too, but that these decisions are governed by national policy directives. Through the programme design, the distance and distinction of smart city areas from other parts of the city is

maintained, enabling speculation. Note here, that the selection of ABB as the lighthouse areas was also a result of national directives (as mentioned in the previous section).

Figure 23: Advertisement for an upcoming commercial high-rise building in Baner



Source: The Author

Figure 24: Billboard advertisement for a multi-storey residential complex in Balewadi



Source: The Author

Figure 25: An under-construction building in Balewadi



Source: The Author

As Prasad, Alizadeh and Dowling (2022) have argued, the SCM has promoted bubble urbanism, which has produced fragmented urban landscapes through its area-based approach in Pune. The gains intended to be generated through the creation of these time enclaves rely on their exclusionary nature and temporal distance from the rest of the city, revealing the Present-Future of the smart city, where its exceptional future is projected for gains to be reaped in the present. Evidently, the speculative real estate development spurred on in these enclaves is also intended for the middle class-consumer-citizen, and not for the working classes or the nearly 30% of Pune's residential population that lives in informal settlements (Punekar News, 2022; Interview with Sahil, journalist, 10/11/22).

On a walk with the chief architect of the SCM, Dilip, along the pilot road of smart city in Aundh, he mentioned how it was his dream to buy a shop in the commercial areas that flank both sides of the road, but that his dream will now remain unrealised because of

how much property prices have appreciated after the construction of this smart road (Interview with Dilip, Architect, Pune, 24/2/23). The commercial value has accelerated in the areas alongside this road, and now the shop-owners are able to sell or lease their property in the area at double the cost, or even greater than what it was before the SCM.

According to Dilip, the cost of developing this 1 km stretch of smart road was Rs 14 crores (~1.57 million USD), and the cost of refurbishing that road now that 7 years have passed would not be less than Rs 5-7 crores (669,441 USD, on average). The PMC has also benefitted monetarily from the escalating commercial value that the development of this smart road in Aundh has created. The smart city hype has fuelled the development of more offices, residential buildings, and marketplaces in and around the area. As a result, PMC's income has increased through the revenue it receives from Building Construction Charges and property taxes (Interview with Revati, Chief Finance Officer, Pune SPV and Chief Accounts and Finance Officer, PMC, 12/9/22).

As I highlighted in my previous chapters and shall discuss in the next one as well, the SCM's implementation has been shaped by a power tussle between the PMC and the Pune SPV. While the PMC handed over land to the Pune SPV to formulate and execute smart city projects, it is not obliged to share any revenue generated from the development of the projects with the SPV, as the local corporation is the constitutionally mandated body for running the city, not the SPV. Moreover, the PMC frequently dismisses the smart city projects falling outside of its turf, and thus, does not necessarily take responsibility for the long-term maintenance of any infrastructure developed through it. This brings us to another facet that has shaped real estate development in Aundh, Baner, and Balewadi, which is the nexus between local politicians and builders in Pune.

6.2.1 THE POLITICAL ECONOMY OF REAL ESTATE DEVELOPMENT

In Chapter 4, I opened with an excerpt from an interview with Pradeep, a politician-lawyer-builder, whose political office tripled as his advocacy office and his real estate business office. In Aundh, the development of smart city projects has happened because of Pradeep's personal interest to make Aundh the "top suburb in India", and his strong political position within the city, especially as a member of the ruling party (Interview with Pradeep, politician, 20/2/23). When asked about the lack of any notable smart city projects in Baner and Balewadi, like the Aundh pilot road, Pradeep was quick to add that the politicians representing those areas did not have the 'will'.

The text and quotation originally presented here cannot be made freely available via ORA because it contains sensitive information and may also affect the privacy of the research participant involved. The information contained in the text and quotation that have been redacted were sourced from the primary data collected for this thesis in Pune.

While I could not find any explicit personal connections between Pradeep's real estate business, and the construction company[25] making the smart road, the construction company has been frequently contracted by the PMC for its development projects.

This instance described above is noteworthy for two reasons. Firstly, it is an example of how a Present-Future is sought to be created. Pradeep is one of the individuals who stood to gain in the present from smart city's temporal exceptionality as a zone of future aspiration and prosperity. By developing the first smart road of the city in an area that he represents (by proxy as described in Chapter 4), Pradeep stood to benefit from it politically, as he could take credit for the smart road, which would perhaps translate into electoral gains. In fact, on this pilot road, there is an open gym created on the pavement with a sign that explicitly mentions that it has been created through the funds and support of the local corporator. In my interview with Pradeep, he mentioned that he hopes to

[25] For reasons of protection of privacy, the construction company is not being named here.

continue his dream of making Aundh the 'topmost suburb in India' if people elect him to power again. For individuals like Pradeep, the perpetual futurism of the smart city is of less concern than an imagined future that serves aims and objectives in the present. This instance that he shared with me, that involved disregarding existing laws to create the smart road is an exercise in bringing the smart city out of its Future-Future to its Present-Future. This Present-Future is mediated by the existing local political economy, as the real estate development in the smart city areas exhibits.

Secondly, this instance suggests that like the other zones of exceptions, such as SEZs, the smart city perhaps also facilitates dispossession to an extent.

The text originally presented here cannot be made freely available via ORA because it contains sensitive information and may also affect the privacy of the research participant involved. The information contained in the text that has been redacted was sourced from the primary data collected for this thesis in Pune.

However, in both instances, it was driven by Pradeep's own drive to use the smart city's temporal exceptionality for his own gain. Equally, there are other instances wherein smart city projects were not executed because land acquisition could not take place as the property could not be legally acquired or was disputed in terms of ownership and therefore, a part of ongoing court cases. SCM projects in these cases continue to inhabit the realm of perpetual futurism.

Finally, this account reiterates some findings of existing scholarship on the role of the state in land markets and real estate development in India which highlight the state's informal, mediated, and sometimes predatory nature (Goldman, 2010; Shatkin, 2018; Sud, 2014a, 2014b). Moreover, as is extensively documented, informality is a key aspect of the workings of the local state in India (Bear, 2013; Chattaraj, 2019; Roy, 2009; Sami, 2012). As Sami (2012, p. 19), notes in the case of the development Magarpatta city outside of Pune,

> Private developers have drawn on their personal social networks to gain access to state-level government officials and politicians in order to obtain permissions and approvals for these township projects at a much faster rate than it would have otherwise taken to obtain permission from the city government through the formal planning process.

Thus, even in Pune's smart city-making, the extra-legal, shadowy, and informal network of the state has played a role. In some ways, the implementation of other smart city projects in their full scope did not take place because the local state with its attendant state practices were sought to be bypassed, including this local political economy of development. Pune's Smart Cities Mission would perhaps have looked very different, had the municipal corporation been at the helm of affairs, rather than the SPV. This is not to say that it would have necessarily been 'better', but it would have certainly not dealt with land acquisition and fund-crunch issues in the same way that the SPV did. Any further discussion of what Pune smart city could have been might digress into a 'speculation' of its own kind.

Therefore, returning to the real estate developer and politician nexus in the implementation of the Pune SCM: in every smart city, there is an advisory body to the SPV that was set up, namely the Smart City Advisory Forum (SCAF). This advisory forum was to be comprised of a mix of bureaucrats and political representatives from the state legislature and the national parliament, but not the local corporation. The elite governmental representation was to be mixed with citizens' representation through the inclusion of leadership from various associations (see Figure 26 for details).

Figure 26: Document snapshot detailing the composition of the SCAF



The Smart City Advisory Forum as per the constitution mentioned in Clause 13.3 of Smart City Mission Guidelines is required to include the below persons / entities as its members:

1. District Collector
2. Member of Parliament
3. Member of Legislative Assembly
4. Mayor
5. Chief Executive Officer, Pune Smart City Development Corporation Limited
6. Local youths
7. Technical experts
8. And one member from the area who is:
   a. President/Secretary representing registered Residents Welfare Association
   b. Member of registered Tax Payers Association/Rate Payers Association
   c. President/Secretary of Slum level federation and
   d. Member of Non-Governmental organization (NGO) or MahilaMandali/Chamber of Commerce/Youth Associations

It was stated that at present following were the Members of the Forum:

1. Hon. Guardian Minister, Pune
2. Members of Legislative Assembly
3. Members of Parliament
4. District Collector
5. Mayor, Pune City
6. Chief Executive Officer, PSCDCL

Source: RTI reply, 2020, Public Information Officer, Pune Smart City Development Corporation Ltd.

In Pune, the SCAF was set up in 2017. It consisted of the requisite representation from government figures, but when it came to the appointment of citizens' representation, the people who were inducted to the SCAF were two real estate developers. My research participant, Rakesh, being a 'socially active citizen', filed an RTI report[26] to find out who was appointed to the citizens' forum, as to his knowledge the members of the SCAF had not been made public. Based on the RTI responses he received, which were shared with me as well, the two non-government people who were appointed to this forum were prominent developers who had created townships outside of Pune. There was no other

[26] The RTI or the *Right to Information Act, 2005* is a law passed by the national parliament in India. This legislation aims at improving transparency in government processes, thereby improving the government's accountability and curbing corruption. As per this act, any citizen of India can request information from any public authority in the country in the form of government documents, records, and information available in other formats, barring information considered to affect national security.

representation as mentioned in the composition plan of the SCAF—neither from Resident Welfare Associations, nor slum-level federations, nor youth groups.

On one level, this is unsurprising as the vision of the development of 'lighthouses' is akin to the development of townships. Quite aptly summarised by a journalist in Pune whom I interviewed,

> Smart cities does not work for already existing cities. It can work for townships which are controlled by a small group of people. Townships are usually real estate projects and usually only those who can afford it go there. Smart cities concept and projects are easy to accept for the people living there and easy to implement as well. – Interview with Veer, journalist, 10/10/22

Perhaps, these individuals were appointed because they have the experience of creating these private cities which derive their value on the promise of a futuristic, prosperous lifestyle and profitable returns to speculative investment in real estate. On another level, these two real estate developers already have connections with powerful politicians in the city. I mentioned regional agrarian capital's channelling into Pune's development and real estate projects earlier, and the role of Sharad Pawar and the Nationalist Congress Party in the same. Both the real estate developers are known to have decades-long, prominent connections with Pawar, and even other powerful politicians in Pune (Joshi, 2010; Sami, 2012; n.a., 2021). In the smart city of Thane, also another city in Maharashtra, the Smart City Advisory Forum was found to have no representation from citizens' groups as well. However, in Thane, instead of real estate developers, politicians directly served on the SCAF itself. Unsurprisingly, the smart city tag fuelled speculative real estate development in Thane as well, with projects being concentrated in formerly agrarian areas that were recently incorporated into the city's municipal limits ('New Thane') as opposed to areas of the city that have been the most neglected and least developed for over two decades. These 'New Thane' areas are real estate development hotspots in the city now (INHAF, 2022a).

Returning to Pune, from the minutes of meetings of the SCAF, which were made accessible to me, what became evident was that rather than playing an advisory role to the Pune SPV, the SCAF functioned as a voice of opposition, and even audit, to the SPV, questioning its non-implementation of projects and the large amounts of money it was spending on management consultants. While this is a thread that I pick up again in the next chapter, what is important to note here is that the rampant real estate development in these areas, and especially Baner and Balewadi, is not purely a consequence of either the smart city drive or the political economy of real estate development of the area. Instead, a mix of the two has fostered the existing material conditions of this particular spatio-temporal zone. Thus, only by investigating liminalities, can we uncover a more comprehensive account of the workings of the SCM and contemporary urban transformations that are underway, more broadly.

As Aditya Ray (2020) argues, literature on urbanisation in India's megacity fringes, especially ones which are driven by growth of the IT industry and digital technologies, tends to examine the phenomena in adversarial terms by focussing specifically on binaries such as class (capitalist vs. agrarian) or spatial ones (global vs. local). These binary lenses continue to frame key discussions in scholarship on postcolonial urbanisation in India and the wider Global South. Thus, he argues for "the need to move beyond these binaries, to explore the vibrant afterlives of high-tech suburban clusters by understanding and exploring their continuous co-shaping by diverse, yet co-dependent local economies, infrastructures and civic and political actors" (p. 372).

With its feature of area-based development, the vision of the SCM was to create time enclaves that operate in a future time—never quite reachable as they are always 'ahead'. The intent was to create zones that would provide fresh openings for capital's expansion, especially international capital, through their positioning in a different

temporal space. While this was the vision, local/regional capital in Pune has sought to appropriate this state of exceptionality created through the tag of ‘smart city’ for its own gains, by attempting to bring the imagined future to the present. Thus, the Pune smart city exists in cross-cutting and overlapping spatio-temporalities. Time is networked, and the future of the smart city is created through the co-existing present and past of the space it is interwoven with. This is why smart cities largely do not work as envisioned. They carry an inherent temporal tension—they seek to overcome legacies of the past and usher in a groundbreaking, utopic future, but their implementation is mediated through the present, which is further informed by the past.

So far, in this chapter I have discussed the lighthouse approach of the SCM and how that has fuelled speculative development in west Pune, in conjunction with the local political economy of real estate development. I now briefly discuss how this has further altered the spatio-temporal relations between the ‘old city’ and the ‘smart city’.

6.3 SPATIO-TEMPORAL ORDER OF RELATIONS BETWEEN OLD CITY AND SMART CITY

While the threads of past and present run through the making of these time enclaves, it is undeniable that the SCM is altering the spatio-temporal order of relations in Pune, such that existing inequalities in the city are being exacerbated. In her analysis of the spatial temporality of the smart city of Shimla in Himachal Pradesh, as also mentioned in Chapter 2, Ayona Datta (2024) finds that the SCM spatialises time in a way to reproduce marginality between the smart city areas and the other parts of the city. Similarly, in Pune, the lighthouse approach of the SCM is geared towards spatialising time in a way that disassociates the selected areas from the rest of the city in a way that does not merely reproduce marginality but alters the existing spatio-temporal order of relations in the city.

In an interview with Pratap, an engineer at the Pune SPV, I asked why smart roads were not made in the older parts of the city, such as Swargate, an extremely busy area which hosts an inter-city bus transit point that dates back to 1940, or in Yerawada, a locality known in history books for housing the (in)famous colonial-era Yerawada Jail. This jail was where several leaders of the Indian National Movement were imprisoned but stands today as one of the most densely populated and poorest areas of Pune, with over a hundred thousand people living in informal settlements (Sen, Hobson & Joshi, 2003).

To that, he had replied, "*Purane city mein nahi ho sakta* [It cannot be done in the old city.] There the road area is only 18 m in total. It would be very difficult to create wide footpaths and lay down all the necessary infrastructure underneath that" (Interview with Pratap, Engineer, Pune SPV, 29/11/22). While Pratap's response was from a purely technical point of view as someone executing the SCM project, this technicality is also built on certain assumptions. Recall here, that Aundh's wide-pavement pilot road was also

built through the use of coercion and stealth. It was not the case that a ready-made open tract of land was available for the creation of these smart roads. But as a lighthouse area, Aundh was chosen to be a space of futurism and aspiration, and therefore, these projects were to be implemented there. In bringing Aundh's smart future to the present, an alignment of political and economic interests amongst powerful stakeholders played a role, shaping the material manifestation of this envisioned time enclave. But the old city is assumed to be too old for smartness.

The temporal distance between smart city and old city is far wider than their geographic distance, and with the SCM, the temporal order between the two has been inverted. Baner and Balewadi were once agricultural areas existing on the outskirts of Pune. In 1994, the largest sports stadium of Pune was built on Balewadi's soil, bringing some development to that area as a road was built, passing through Baner, to connect it to the core of the city. With the establishment of the IT park in Hinjewadi (see map in Figure 5, Chapter 1 for reference), these two adjoining areas acquired greater significance and were included within the city's municipal limits. Even in the early 2000s, these areas, along with Aundh remained as fringe areas to the core city. Baner and Balewadi, especially, were considered as undeveloped, semi-rural, and therefore, 'behind' the rest of the city. While the value of these areas increased with the growth of the neighbouring IT industry through the 2000s, the SCM is what sealed the deal with its speculation on the geographic importance of these areas.

Baner is now a real estate hotspot and represents a future moment of urbanisation, rather than its agrarian past. Figure 27 depicts a photograph of a billboard in Baner with an advertisement of an upcoming real estate project called Baner NX, with a slogan saying "The Future is Baner NX. Decoding Soon…" The imagery behind this slogan is that of the skyline of a megacity with orange-yellow light beaming through the gaps

between the skyscrapers from behind, as though the sun is rising, and a new day is beginning, ushering in a global city life and all its associated possibilities. The words 'Decoding Soon' are geared towards marketing the project to the intended audience, the IT professionals who work nearby, but perhaps also seek to signal the eminence of this class of professionals in the city, in its polity and economy—smart citizens of a smart city.

Figure 27: A billboard advertisement of an upcoming real estate project in Baner



Source: The Author

As another instance, a former resident of Pune, who lived in the city for most part of the implementation of the SCM, and whose family is also based in the city mentioned to me,

> In 2012, my brother bought property in Baner. At that time, nothing was there—even proper roads were not there. He knew that area was developing. After smart city, that area has developed, Balewadi High Street is there.. where my brother lives now. The area is lively and there has been growth in Baner, but the development has been haphazard. As an architect, I don't like it. If I go out to my brother's terrace, I can see high-rises of different sizes on different plots – Interview with Anjali, former resident, Pune, 1/10/24

Similarly, Balewadi has witnessed substantial commercial development alongside real estate development. ‘Balewadi High Street’, inspired from UK-style high streets which are often the primary market streets of a town or city, has developed in the area in the past few years (see Figure 28). The High Street is glitzy, and comprises high-end supermarkets, restaurants, and several notable international retail brands, and is always abuzz with young people, often seen live-streaming or taking selfies. Offices of the technology firm Siemens and other multinationals such as Cummins exist behind this street. From being areas that were considered as being ‘undeveloped’ and lacking in infrastructure, Baner and Balewadi have gone on to become the areas that at least symbolically (if not entirely tangibly) represent the future, with modern city lifestyles and wealth. In the spatio-temporal order of Pune, their relationship with the core city is changing.

Figure 28: Balewadi High Street



Source: The Author

6.3.1 MATERIAL CONSEQUENCES OF SPECULATIVE DEVELOPMENT IN ABB

As argued for earlier, the 'truths' of urban transformations exist beyond binaries, in the liminal spaces. The lighthouse approach of the SCM is geared towards creating these spatio-temporal bubbles that perpetually exist in the future, such that they create temporal space for capital's further expansion. In Pune, this future of the smart city has been mediated by actors who seek to imagine and appropriate this future for the gains that it can bring to them in the present, whether it be political credit or profit through speculative real estate development. Through a combination of both—actors and institutions who seek to create the Future-Future and the Present-Future of the smart city, the programme has departed significantly from the professed smart city ideals of creating a sustainable and inclusive city. I previously discussed how the SCM has widened inequalities in the city, and now I briefly discuss a few other material consequences it has produced in the lighthouse areas.

Firstly, smart city has led to greater concretisation. The underground utilities like optical fibre cables laid underneath the smart road have been built on a layer of concrete, preventing any rainwater from percolating the soil and augmenting ground water reserves, and contributing to surface-level waterlogging. The SCAF also questioned the smart city SPV on the same, alleging that 90% of the 21 'placemaking' projects were implemented with the extensive use of concrete. The advisory body expressed environmental concern over the same, especially on its potential to amplify the heat-island effect in the city, leading to greater warming[27]. Furthermore, while flood sensors have been installed through the SCM, their actual utility remains questionable, and so far, they have not been used by any administrative body in the city to plan for and manage flooding in the city.

[27] Based on documents shared with me on the minutes of the SCAF meetings by my research participant.

Aundh, Baner, and Balewadi routinely experience flooding, especially in the Monsoon season, with sights of roads being submerged under water being commonplace (Karale, 2024). Notable here is that prior to the SCM, these areas were not known to be prone to waterlogging because of the heavy rainfall that the Monsoon season brings (Khairnar, 2019).

On the other end of the spectrum, access to regular, piped water, especially in Baner and Balewadi remains an unrealised goal. In some areas of Balewadi, the water shortage is so severe that residents in the newly minted housing societies, do not even get 15 minutes of piped water supply from the municipal corporation in a day (Dolare, 2022a). Residents (who can afford to) frequently need to resort to paying for private water tankers to get access to water (Dolare, 2022b; Gadkari, 2022). Pune has a known 'water tanker mafia', which provides illegal water supply at inflated costs to the residents of the city. While this 'mafia' has no connection with the PMC, it is known to be well-connected politically (Bari, 2022a; Khairnar, 2018).

The speculative real estate development in these areas is unsustainable and driven by a relentless pursuit of profitability, over all else. A lot of the building and construction is unregulated or deliberately unregulated, as Roy (2009) suggests, owing to the politician-builder nexus. It remains contested, and is even resisted, evident with the residents of Baner and Balewadi routinely expressing disappointment and dissatisfaction, and even launching an 'Enough is Enough' campaign against the Pune SPV, questioning why they do not have access to basic civic amenities despite being smart (Bari, 2022b).

6.4 CONCLUSION

In this chapter, I discussed a unique aspect of the SCM, which is its area-based development approach. Taking the case of Aundh, Baner, and Balewadi, I unpacked what

the lighthouse vision of the SCM entails. This approach seeks to create zones of temporal exceptionality within the city-space. Their exceptionality does not lie in a different set of regulation that governs them as they fall under the local corporation's sphere of influence, although there is a different state body for the formulation and execution of smart city projects, namely the SPV. Rather, their exceptionality lies in their occupation of a future temporal space than the rest of the city—lighthouses are envisioned as expertise-driven 'test labs', experimenting with futurity and innovation, mediated through the promise of digitalisation.

Thus, through the smart city, capital is seeking a fix in temporal space, alongside the co-constituted geographic space. If a spatio-temporal zone always exists beyond the possibility of reach, then there are ever-more possibilities of profit-making. This could take the form of justifying the need for these 'test labs' through the rationale that they are experimenting with and innovating solutions to challenges of future urbanisation through the expertise and products of consulting firms and technology firms. It could also take the form of speculative profit-making in real estate, that hinges upon the exceptionality of the lighthouse, as the case of Pune demonstrates. In examining the material interests that drive the futurism of the smart city, I have answered the second core question informing this thesis, on why the smart city is always envisioned at a point inhabiting the future.

In Pune, the local political economy has shaped the material manifestation of this envisioned time enclave. There exists a strong nexus between real estate developers and politicians in the city, with several politicians owning real estate businesses themselves. The income generated through real estate finances expensive political careers, either individual ones of politicians or the political party that they belong to. In turn, their political positions help in undercutting regulation to generate profit for their business. To quote a prominent activist-turned politician of the city,

> Every new government works for its party funds and party *karyakartas* [workers]. This new scheme's [SCM's] funds were utilised for that. For instance, 'housing for poor' has been going on since the 1960s but the poor still don't have a house. Politicians have become builders – Interview with Naresh, activist-turned-politician, Pune, 24/11/23

While the phenomenon of real estate politicians in Asia has been discussed by scholarship already, in detailing the key role that they played in shaping the fates of Aundh, Baner, and Balewadi, I highlighted the role of temporality in mediating politics. The "actually existing" smart city, as Rob Kitchin (2015, p. 134) called for to be studied, exists in cross-cutting spatio-temporalities, and is defined through their interconnections and variance.

In this chapter, I also attempted to explore and analyse some of these sites of intersection. I argued that the SCM is altering the spatio-temporal order of relations between the old city and the smart city, and inverting the relationship that previously existed between them—the lighthouse areas that are now envisioned to occupy a future time, were considered to be steeped in the past and undeveloped. The old city on the other hand, is deemed to be too far behind for the experimentation and innovation involved in becoming smart, widening the temporal distance between the old city and the smart city. This is a dynamic and contested process, and by no means a solidified equation. Smart city as a concept carries an inherent temporal tension, which is reflected in the complex and often contradictory material development of Baner and Balewadi.

In the next chapter, I show how these temporal tensions of the smart city, can also be mapped on to the state-in-practice, showing how the state is also spatialised across temporal space, not just geographic space. The pluralised and internally differentiated state also occupies different temporal spaces, and through Pune's case, I illustrate how political dynamics are at play in shaping this spatialisation.

CHAPTER 7: FRAGMENTATION OF URBAN GOVERNANCE: TEMPORAL AND TERRITORIAL DIVISION OF PUNE

"*Prashasan belgaadi hai* aur smart city *mein yeh* Ferrari *ka engine lagaana chahte hain* [The government is like a bullock cart and with the smart city they want a put a Ferrari's engine on it.]"

– Interview with Naresh, local politician and former activist, 24/11/23

When asked about the role of consultants and the SPV in the SCM's implementation, Naresh, a local activist-turned-politician in Pune provided a quick response, and without mincing his words, added that it represented merely the "corporatisation of corruption" that brought no real advantage to either programme implementation or governance, because it was akin to a Ferrari's engine being deployed on a bullock cart. Here, the Ferrari, a reference to cars produced by the Italian luxury sports car company of the same name vividly captures the futurism and speed associated with notions of smart city. Ferrari produces sports cars with ultra-sophisticated engines and cutting-edge designs that allow the vehicle to go up to speeds of over 200 miles per hour (routine for race cars participating in Formula One championships), traversing vast geographic distances in the least amount of time, facilitated by the achievements of modern-day science and engineering. Interestingly, Naresh likened the SPV, with its collaborations with consulting firms like McKinsey & Co. and PwC (as discussed in Chapter 5), as the Ferrari's engine—a propellor of forward movement, a feat of technological innovation. The local state, or the *prashasan* of the city on the other hand, was likened to a bullock cart, inhabiting a time that is considered to belong to the 'past' and eons away from the innovation and modernity that characterise the epoch of the Ferrari. Thus, it is not just the envisioned smart city that occupies a future time, its associated governance apparatus also does as well.

In the previous chapter, I discussed how through the area-based development or lighthouse approach, the SCM seeks to create certain exceptional enclaves of futurity, and

how its implementation in Pune is leading to a spatio-temporal reordering of the city-space. In this chapter, I demonstrate how the same is reflected in the governance apparatus of the city. While it has been established that urban governance in India is deeply fragmented (Sami, 2012; Weinstein, 2014), I show that the introduction of the SPV in Pune creates a temporal contestation amongst local state actors and institutions, further fragmenting governance.

Furthermore, note that in Naresh's analogy, and in the notions of smart city futures that have been discussed throughout this thesis, time is conceived of linearly—mapping onto an equally linear development trajectory starting from the bullock cart and progressing towards the Ferrari. While discussing the temporal dimension of fragmentation in governance, I highlight how the SPV and the smart city vision, hold profound continuities with the postcolonial developmental state of the past, despite aiming to overcome historic underdevelopment. In doing so, I explicitly delineate the third and final imagined future of the smart city that is evidenced through the SCM—its Past-Future.

Specifically, the national state's drive to bypass urban local bodies instead of strengthening them, through the creation of more parastatals (such as Improvement Trusts, and later, Land Development Authorities) has existed historically (NITI Aayog, 2021; Weinstein et al., 2014). The reasons provided for this over the decades have always been similar—that urban local bodies lack capacity and are corrupt, completely glossing over the role they play in the larger political system—from constituency-building for local politicians to financing political parties through kickbacks obtained, as also evident through the data presented in Chapters 4 and 6. They are deemed as 'backward' and not 'smart' enough, necessitating the need for instituting other bodies charged with the city's development. Thus, extending Ayona Datta's (2024) notion of 'distant time', I argue that it

is not only exercised as a mechanism to produce marginality amongst certain sections of the citizenry and keep them at a temporal distance from the state, but that it is also at work within the internally differentiated and pluralised state. Finally, I argue that this marginality produced through the exercise of temporal power is also contested, both notionally and practically, with the local corporation using strategies to subvert the SPV's functioning and undercut its power.

The rest of the chapter is structured as follows: In section 7.1, I begin with discussing the SPV, analysing the role that bureaucrats and consultants play in its workings. I further discuss the temporal dimension in the SPV's form and functioning, unpacking notions of futurity associated with it and how this (re)produces marginality within the state. In the process, I tease out the Past-Future of the smart city. Next, in section 7.2, I discuss how the smart city and its inherent futurism produce fragmentation in governance, with contestations in both vision and implementation of the SCM in Pune. I also discuss how these contestations embody differing visions of the role and function of the state in the urban governance—the 'lighthouse', smart state of the SPV vs the older, municipal corporation. In other words, the implementation of the SCM in Pune reveals an axis of temporal contestation between different actors and institutions within the state—even at the same scale. Finally, in section 7.3, I discuss the material consequences of this contestation in Pune. Specifically, I examine how it is impacting the city's development and administration of governance, leading to a territorial division of Pune amongst state institutions.

7.1 THE SPV, FUTURISM, AND 'DISTANT TIME'

The SPV is a curious body. It is effectively a government entity that is, in theory, supposed to operate like a business. Technically, it is a company, bound by all the regulations of the *Companies Act, 2013*. Through the previous chapters, I mentioned that

the SPV is not simply a product of the turn towards urban entrepreneurialism and New Public Management, whereby the state is supposed to facilitate the expansion of private capital by creating a 'good business climate'. Instead, it goes beyond that, and what is evident through my fieldwork in Pune, is that through the SCM the state has also aimed to generate demand for businesses—technology companies and management consultancies in particular—through smart city projects. In turn, consulting firms have carried out what would be considered key government functions in this programme (as discussed in Chapter 5).

The nature and operation of the SPV offers insights about the changing nature of the state and statecraft in India. In this section, I focus on two key aspects: the entrepreneurial bureaucrat and the exercise of 'distant time' within the state, the latter referring to the deployment of temporal power to keep the urban local body in a position of marginality. In later sections in this chapter, I discuss how this exercise of 'distant time' is also deeply contested, and even subverted, in Pune. I build on these insights and tie them with findings from previous chapters in the next concluding chapter, to fully answer the third and final core question informing this thesis—on what the SCM tells us about the state in India in the contemporary moment.

To recapitulate what has been discussed in earlier chapters, the SPV was created as a dedicated body to implement smart city projects, as municipal corporations were considered lacking in efficiency and the wherewithal to implement a 'bold' programme like the SCM (MoUD, 2015). Consider the following two quotes from functionaries working at the Pune SPV:

> SPV was created to make decision-making simpler and increase the speed of decision making. There are limited personnel involved [in the SPV], namely the Board of Directors. There is limited accountability. In the Pune Municipal

> Corporation there are 300-400 members involved. – Interview with Ajmal, Company Secretary, Pune SPV, 7/9/22

> There was a vision for the SPV to become a parallel body in urban governance to the ULB. But there is no sustainability of the company. – Interview with Vivek, Accounts Office, Pune SPV, 7/9/22

In an already fragmented urban governance space, the SPV was brought in to become a "parallel body in urban governance" as the quote above states—a different governance apparatus for the different time enclaves; a lighthouse state for the lighthouse areas. As highlighted in Chapter 6, the SCM's area-based development or lighthouse approach is exclusionary and undemocratic, for it is premised on the assumption that one fraction of the city's area, can be developed as the ideal (with a disproportionate amount of government spending), for other parts of the city and other cities to emulate, disconnected from the actual needs and lived experiences of its residents.

The SPV represents the lighthouse state that is ahead in time, the smart state that operates with business-like efficiency. Unlike the postcolonial state, it is not afflicted by the perils of long-term planning. Speed is the name of its game, and it achieves the same by making decision-making simpler through the involvement of a smaller number of decision-makers, constituted through its fifteen Directors on the Board of the SPV. Another element that contributes towards the efficiency of the SPV is its concentration of, and reliance on 'expertise'.

The PSCDCL website claims that it envisages the SPV to be "a thin SPV with procurement from the market for all key positions including Heads of Departments" (PSCDCL, n.d.). Like the idea of a contextually dis-embedded and exclusive lighthouse, the SPV is not necessarily or deeply concerned with democratic decision-making. In fact, in Pune, elected local corporators had no place in the SPV's Board of Directors, as per the initial plans created for it in 2016. The Board was to be run by an officer of the Indian

Administrative Services (IAS)[28] who would be the CEO and include other members such as the Heads of various departments of the smart city corporation. The PMC protested and demanded the inclusion of elected corporators in the Board, and ultimately five of the fifteen places were granted to the "people's representatives" (Interview with Pranav, journalist, Pune, 22/11/22; Times News Network, 2016). However, since my fieldwork in 2022, municipal elections have been suspended due to a legal matter[29] and continue to remain suspended as the city is under administrative rule. Thus, from 2022, the only people on the Board of the SPV in Pune are bureaucrats.

This brings us to the key role that certain bureaucrats have played in driving the implementation of the SCM and its vision, to the extent that one of my informants said that the SCM represented the interests of "Central bureaucrats first, and then politicians" (Interview with Radhika, resident-activist, 22/11/22). The Mission Director of the SCM at the national level (at the time of writing this thesis), Rahul Khosla[30], was once the Municipal Commissioner and the CEO of the SPV in Pune. His 'success' with the Pune smart city is what led to his promotion to head the programme nationally. Across my interviews in Pune, Rahul emerged as a prominent person that nearly everyone knew of when it came to the SCM—whether they thought of him favourably or unfavourably.

---

[28] The Indian Administrative Service (IAS) is India's elite civil service, which forms the administrative backbone of the country. The service is a legacy of the colonial-era Indian Civil Service, evolving in form and function from then. Present-day IAS officers are recruited through the Union Public Service Commission and are deployed in both national and State governments. They are responsible for implementing government policies, advising various government ministers, and overseeing administration from the district-level to the national-level. Thus, they have a key role to play in the delivery of development programmes, governance, and even policy formulation to an extent. The service remains central to the country's bureaucratic governance architecture, holding considerable power and authority.

[29] This legal matter has been detailed earlier in footnote 16 (Chapter 4, page 121), which can be consulted for reference.

[30] Pseudonym being used here. On numerous occasions, I attempted to secure an interview with Rahul Khosla himself. After a few instances of rescheduling, I was finally called to his office, and when I reached there for the appointment, I was told on the spot that the interview has been cancelled and will not be taking place. Thus, unfortunately, I do not have Mr Khosla's interview for this thesis. His speeches, posts, and written work have been used as substitute sources of data instead.

Nearly in every major public event or communication regarding the SCM, Rahul has been the spokesperson advocating this 'test lab' approach when it comes to urban development, while his colleagues referred to the SPVs as 'start-ups' (Pandey, 2022).

The text originally presented here cannot be made freely available via ORA. It has been redacted to uphold the privacy of individuals involved. The information contained in the text was sourced from the primary data collected for this thesis in Pune.

Perhaps the 'entrepreneurial' drive of this key figure in the SCM is most evident through the following quote:

> When we presented to RK [Rahul Khosla] our projects.. there were 3-4 people in a team who were presenting their ideas. Some ideas, for example, there was this idea on 'carrying capacity', *jo mera bhi idea tha* [which was my idea as well]. Like how cities have a carrying capacity…*jaise Joshimath mein hua hai.. uski carrying capacity utni nahi hai jismein mein aap development kar rahe ho* [Like what happened in Joshimath, it didn't have the carrying capacity for the kind of development work that was being done]…that's the idea of carrying capacity. But he [RK] came up and said that *"Nahi yeh toh bahut communist idea hai, it is not what the market wants* [No this is a very communist idea, this is not what the market wants]. – Interview with Reena, India Smart City Fellow, 24/3/23

This excerpt is from my interview with Reena, who was a part of the national level fellowship for young people to participate in the SCM from 2021-22[31]. As a select group of fellows, handpicked from across the country, she was amongst the few who had close interactions with officials in Delhi heading this programme. Part of the fellows' job was to identify areas in which smart solutions could be created and develop a prototype product for the same. The fellowship is also a modality through which the state endeavours to become smart—infusing youth and utilising their talent and labour to create these smart cities, rather than utilising the established cadres in bureaucracy. The presumption is that the energy and vitality of youth consultants will assist in speeding things up as moving through the channels of institutionalised bureaucracy would be slower paced.

[31] Refer to footnote 20 (Chapter 5, p. 180) for information on the India Smart Cities Fellowship.

However, Reena believed that the fellows' involvement in the SCM was to give a tokenistic presence to youth, as their ideas were routinely overshadowed by the ideas of key entrepreneurial bureaucrats in the programme. In the above quote, Reena recalled the time she and her team had to give a presentation on the potential interventions they desired to make. The town of Joshimath that she references, is a small town in the Himayalan region of North India that has been slowly sinking for the past few decades, and more rapidly, in the past few years. This town has become a tourist and pilgrimage hotspot, spurring on development activity that has over-extracted ground water in the area for construction (Biswas & Gusain, 2023). As a result, the land underneath Joshimath has been sinking. Reena's pitch for projects on 'carrying capacities' that would foster environmentally sustainable development, should technically fall within the vision of smart city development. It is rather revealing then, when the pitch was rejected by the Mission Director on the grounds of being "too communist" and "not what the market wants".

While lengthy discussions on capitalism and environmental (un)sustainability go beyond the scope of this project, it is widely established that capitalist development with its relentless pursuit of profit has contributed to environmental degradation and the climate crisis. Moreover, the prevailing dominant approaches to development are largely unsustainable (Jackson, 2017; Klein, 2014). In 2009, a group of scientists established and quantified nine planetary boundaries, such as climate change, ocean acidification, stratospheric ozone depletion, amongst others, that if breached, would alter Earth-systems to an extent that they would cease to be a "safe operating zone" for human life (Rockström et al., 2009). Since then, social-scientific scholarship has critically examined various facets of these planetary boundaries, from what is driving a breach of sustainable boundaries, to who would be impacted by this breach the most, and why.

Moreover, the planetary boundaries identified by Johan Rockström and his colleagues are informed by processes which occur across scales, from regional to local, such as in the case of climate change (Steffen et al., 2015). What becomes evident through this research is that models of unfettered economic growth premised on extraction of resources and unsustainable patterns of production and consumption are driving socio-ecological destruction (Brand et al., 2021; Fanning et al., 2020; Sultana, 2023). Furthermore, it is not economic activities in the abstract, but "governments, states, and international political regimes" which have played a key role in escalating this transgression of planetary boundaries (Brand et al., 2021, p. 271). The abovementioned instance recounted by Reena reaffirms the same. As Farhana Sultana (2023, p. 4-5) argues,

> With international development and globalisation models, and increasingly media, pop culture and domestic policies influenced by international organisations and transnational capital, more and more poorer countries and communities across the Global South are being influenced to mimic the unsustainable Western and Eurocentric lifestyles and habits, of methodological individualism, hyperconsumption and disposal.

This quote also highlights the aspirational element of becoming a developed nation, something that the smart city model in the SCM carries. The models of development that many Global North nations followed, that were held up as the ideal in 20th century developmental discourses were premised on processes of extraction, exploitation, and ecological destruction. When the national state in India aspires to a Past-Future wherein it has achieved the levels of development that the Global North already achieved in the previous century, it is imagining and recruiting a very specific kind of future.

One, this future (and associated aspiration) is rooted in overcoming, perhaps even eroding, histories of colonisation that can never be eroded. Two, this conceptualisation of the future privileges capitalist production and consumption over concerns of sustainability and justice. In research conducted at the Potsdam Institute for Climate Impact Research in

2024, scientists argued that Earth has already breached seven out of the nine planetary boundaries that were established (Gayle, 2024). However, in the futures of smart city that have been discussed in this thesis so far, there is no conceptualisation of a future that exhibits substantive concern for sustainable development, or climate change adaptation, or modifying our socio-economic systems to promote the same. Instead, as was argued earlier as well, smart city with its futurism and nebulous conceptualisation, serves to create more temporal space for capital's expansion, with different futures serving different material interests, be it of technology firms, consulting firms, or real estate developers as in Pune's case.

The instance that Reena recounted, quoted earlier, in which the SCM's Mission Director desired to cater to what the market wanted, also indicates a shift in administrative personnel in the state and the roles and functions they see themselves performing. In the decade after independence, a powerful bureaucracy, a continuing legacy of the colonial state was considered the 'steel-frame' of the developmental state. Bureaucrats of the civil services, serving both in the sub-national States and the national government, held key positions working across the scales of the state, implementing development programmes and policies on ground that were largely formulated in the administrative-political capital of Delhi (Chatterjee, 1994). In many ways, the work of bureaucrats was considered pivotal in the postcolonial state's 'nation-building' project that included achieving the twin (also labelled as contradictory) goals of social justice and economic growth (Frankel, 1978; Rudolph & Rudolph, 1987)

What the SCM's working reveals to us is that, firstly, this contradictory pursuit of economic growth and social justice continues with the contemporary Indian state, described as neoliberal, entrepreneurial, among other things. Secondly, while continuities with the past exist, this contradiction has widened and morphed into a dissonance that

exists in a dynamic displacement across the scales of the state. On the one hand, is the postcolonial state of the past, deriving its purpose, legitimacy, and functions from performing politically driven functions of the allocation and provision of resources in society (Chatterjee, 1994). This state, as ample scholarship has argued, also exists in a close alliance with capital, as the politician-builder nexus in Pune also exhibits. (Bardhan, 1985; Chandra, 2015; Chatterjee, 2017; Kohli, 2006a; 2006b; 2009; Mazumdar, 2008; Sud, 2009; 2014). On the other hand, the SCM reveals an emergent corporate form of the state, that seeks to behave like an enterprise, seemingly rational and dissociated from the messiness of politics. It is concerned with economic growth and prosperity above all else (not political questions of distribution) and is characterised by a certain kind of belief in the market that might come close to matching the vigour of brokers inside a stock exchange.

The 'CEO' styling of government officials heading SPVs is also emblematic of this changing nature of the state. Figure 29 captures this dualism most vividly with a photograph of the official government vehicle assigned to the IAS officer heading the Pune SPV, which was parked outside the smart city office during my fieldwork. While the words 'Maharashtra *shasan*' or 'Maharashtra government' are emblazoned in Hindi, in red on the white car, there is also a flag at the front of the car which reads 'CEO Pune Smart City Development Corporation' in English. The traditional, constitutionally enshrined government—identified in vernacular—for the old city, but a corporation for an emergent, English-speaking, worlding, smart city. In the next, concluding chapter, I build on this insight, and those provided in previous chapters, and tie them together to provide a cohesive account of this dissonance within the state in India today.

Figure 29: Official Maharashtra government vehicle of the CEO of the Pune SPV



Source: The Author

In the endeavour to create smart cities, the entrepreneurial bureaucrats of the SCM have been closely involved with the 'Big 4' consultants who work at the Programme Management Unit in Delhi. The involvement of experts in formulating depoliticised, scientific plans for development has been there since the Planning Era when India followed five-year plans for development, created nationally by the erstwhile Planning Commission in Delhi. However, while in the past, experts were brought in for their technical expertise—to craft plans based on their possession of unique knowledge or skill sets, consultants are brought in for an additional reason—their supposed *foresight*. Consider the following two quotes:

> The 'Big 4' have the wherewithal to have an advanced thought process. A lot of time and energy goes before a big Mission is announced. Government departments don't have the skills and expertise to do it on their own. So, consultants come in.

> Government asks us *ki yeh bhi kar lo* [do this as well]. The big consultancies have a tacit knowledge of what is to come. – Interview with Varun, PwC, 24/6/23

> ULBs are still not capable to stand for themselves. Cities don't know what they want to do, and in such a case, the money for projects will go in the pockets of the people commissioning those projects on ground. In a meeting of the Karnataka Data Management Society, the IAS officer who was heading the society said that 'we don't have the people who have the brains to do the work' and requested for technically efficient people. The momentum to implement projects gets lost on the ground because the [municipal] corporation does not have the gravity to hold it. – Interview with Shweta, consultant, PwC, 12/2/23

As discussed in depth in Chapter 5, consultants are brought in to move the state on to a temporal space inhabiting the future. As the smart, global experts they are deemed to possess the know-how to move the state onto the said temporal space. Note here, that the above two quotes are both from consultants themselves. Both quotes mention the lack of capacity and foresight in the state to do the work of creating an efficient, world city. In the first quote, Varun mentions how due to the lack of capacity, the government delegates more tasks to them, telling them "*Yeh bhi kar lo*" [do this as well]. While I have previously discussed the entrenchment of consultants in the state, a significant point to mention here is that both bureaucrats and consultants are supposedly 'apolitical'. In the typical Weberian notion of bureaucracy, on which the civil services in India were modelled, the bureaucrat is a rational actor—an arm of the executive, disassociated from the messy, political processes of the legislature (Wilcox, 1965). Both are symbolic of 'expertise' in their own way—consultants working in the 'Big 5' firms are typically selected from the top-most universities globally, while bureaucrats in India are selected through a series of intense and rigorous examinations.

The addition of consultants in the SPV, mandated by the SCM's programme design, extends the approach of using temporal power and temporal distancing to create a veneer of depoliticisation to this state body as well, for the SPV is deemed to be more advanced and capable than the local corporation. City development is dis-embedded from

temporal space and cast as an outcome of the effective deployment of technology and abstract expertise. Figure 30 contains a poster circulated on the 7th anniversary of the initiation of this programme. It reads, "Let us celebrate the past, present, and future of the Smart Cities Mission". Interestingly, the outcomes of the Mission in these seven years are not what are showcased in this celebratory poster—what is being celebrated is the SCM's transcendence across temporalities, painting the ephemeral as the eternal. Beneath this caption, is a logo with "*Sabka Bharat, Nikharta Bharat*" [Everyone's India, Shining India] written in the English script.

Along this caption, are images symbolic of a smart city—generic skyscrapers mixed with symbolic replicas of more notable ones, like the Empire State Building in New York City. Trains, cars, buses, and some trees also find representation in this logo. In other words, these global engines of growth, i.e., the smart cities, are enabling India to move through time with Ferrari-like speed, ushering in development and prosperity for this postcolonial nation, reminiscent of the old and widely discredited 'trickle-down' theory of economic growth[32]. Notably, this poster was also released in 2022 by the national Ministry of Housing and Urban Affairs, when India was celebrating 75 years of independence from colonial rule with a grand, state-sponsored year-long affair called *Azadi ka Amrit Mahotsav* [Elixir of Energy of Independence[33]].

[32] Trickle-down theory, grounded in classical economics, proposes that encouraging investment and entrepreneurship through less governmental regulation, and measures such as tax breaks for businesses and tax cuts for the wealthy, will produce economic growth. Wealth thus generated, will eventually trickle down to the rest of society from wealthier individuals at the 'top.' For more insight into this theory, see Hayek (1944) and Friedman (1962). For some critiques, see Krugman (1994), Piketty (2014), and Stiglitz (2012).

[33] The English translation here is as presented and advertised by the Ministry of Culture, Government of India. More information here: https://cmsadmin.amritmahotsav.nic.in/about.htm#:~:text=The%20Azadi%20Ka%20Amrit%20Mahotsav,pledges%3B%20and%20elixir%20of%20Aatmanirbharta.

Figure 30: Poster for the 7th anniversary celebrations of the SCM



Source: Post from on Mission Director, SCM on X (formerly Twitter)

In the entire SCM vision and enterprise, there has been an evident attempt at recasting and reimagining the nation—a more developed and wealthier nation, that possesses greater power in the global sphere. It envisions its people as consumerist (typically Hindu) middle classes, and in this vision of globalised prosperity, the poor and marginalised find little to no place—they are reminiscent of a past the nation(state) is trying to leave behind. The newer nation-state is presented as smarter and more savvy, having moved away both from the exploitative and foreign colonial state and the slower, bureaucracy-heavy, patronage-based postcolonial state of the decades after independence. The local corporation, on the other hand is still associated with the latter iteration of the

state. It is visibly embroiled in the convolution of politics, occupying a temporal space of the past. Thus, the future of the smart city that is envisioned by the national state, and encoded in the programme design of the SCM, is deeply intertwined with the nation's historic legacies, and reveals the Past-Future of the smart city—a future imagined through the past, to overcome the past. To that end, the smart, corporate state is comprised of seemingly apolitical and forward-looking global consultants and entrepreneurial bureaucrats deemed as occupying a future time.

Recall here, from Chapter 4, the allusions to corruption in the SPV that repeatedly came up during my fieldwork in Pune, exemplified in my informant Radhika's metaphor of *chai* discussed in that chapter. Throughout this thesis thus far, I have consistently established that the depoliticised vision of the SCM is another mechanism for pursuing political agendas and capitalist development. I argue that this depoliticising vision is not only a way of producing and reproducing marginality outside the state but also *within* the state. Extending Ayona Datta's (2024, p. 5) notion of 'distant time' as a "metaphor of social and temporal power that creates imagined distances between the state and its marginal citizens", I argue that this temporal power also works across and within the scales of the state, keeping the urban local body at a temporal distance from the national state. The following quote exemplifies this:

> The decision to use the SPV was that of the Central government so as to not have political interference from the city's political establishment. The SPV has autonomy, and separate accountability to the Board of Directors. As citizens, we think it has failed badly. Public interest gets rolled into policy through the political system. Only political representatives get a big say. But because they are not really a part of the SPV, they have been handicapped in communicating their constituency's interests to the SPV. If they are not a formal part of the SPV, the corporators of the ABB areas do not get formal representation. – Interview with Rakesh, Resident-Activist, 7/12/22

Through the SCM, what we see again and again is that the smart state appears to be operating on a different state-citizen social contract than the older state. The smarter,

'lighthouse' state aims to transform the discharge of government functions as a service it is offering to its citizens, particularly the 'smarter' citizens this programme is aimed at. The ULB, on the other hand is still embroiled in older state conceptualisations and associated functions of provisioning goods and services in the public domain through political contestations and mediations. What Rakesh's quote mentioned above also captures is a kind of dissatisfaction, and perhaps even a touch of the sentiment of betrayal, on the state not living up to its end of the traditional contract. Another resident of Aundh, Vinayak, expressed similarly,

> We feel bad about the money that has been invested in this. So much money has been spent but only about 20% of the work [worth that money] can be seen. There should be an audit done…Even in roads and footpaths, the redevelopment of nine roads in Aundh itself was planned, but only two roads have been done. There is no connectivity. Only a perfect picture which they wanted to project was always projected. – Interview with Vinayak, Resident, Aundh, 7/12/22

The disappointment that both Rakesh and Vinayak (and other residents) expressed to me was over the promise of a smart Pune that never turned to reality, despite significant amounts of public funds that were spent to turn that future into the material realities of the present. While the smart state aims to rely on public-private partnerships in its workings, public funds still constitute a vast amount of its revenues. The 'seed funding' for the smart city 'start-up' projects comes from these public funds, especially in Pune, where the SPV has been wholly financed through government funds. Any experimentation in futurity that the SPV seeks to do, is perhaps premised on the assumption that the public funds are substantial enough to absorb the risk. While the smart, entrepreneurial state may take these risks to undertake the ambitious task of fast-tracking development, the burden of risk in this scenario, also falls on the citizenry, which is downplayed and never actively discussed when the SCM is talked about in public discourse. By any means, this ongoing

transformation in the state is not passively received and is actively contested, as the evidence from Pune shows, and has been previously discussed in Chapters 4 and 6.

Having considered the role of entrepreneurial bureaucrats and consulting firms in making the SPV 'smart', in the next section, I detail the contestation between the SPV and the PMC further. I elucidate how the municipal corporation in Pune contests the imposition of a spatio-temporal order which positions it in a temporal space of the past. I also discuss how this contestation further fragments governance in the city.

7.2 TEMPORAL CONTESTATIONS AND FRAGMENTED GOVERNANCE

Drawing from previous discussions in this thesis, what is evident is that the implementation of the SCM in Pune has been characterised by a power tussle between the PMC and the SPV, and a divergence in narratives surrounding the programme at the national and local levels. Consider the following posts on X, made by the Mission Director, and the quotes provided below from corporators in Aundh and Balewadi:

Figure 31: Posts by the Mission Director, SCM on the success of the programme



Source: Post from on Mission Director, SCM on X (formerly Twitter), 25/6/22

> Later on, there was no coordination between the PMC and the PSCDCL, once the posts of the CEO and the Commissioner were separated. Once that happened, the PMC stopped working. The contractor was also changed. They should have involved the corporators from the smart city areas in the SPV. We had no direct say in the [smart city] work. – Interview with Pradeep, politician and proxy corporator, 20/2/23

> We had said that if you are doing projects in our areas, you should involve us. But there was no rule under smart city that corporators had to be involved. – Interview with Niharika, corporator, Pune, 3/2/23

In the posts in Figure 31, what is emphasised is the SCM's envisioned quality of national development. However, there are two things which are striking about the posts. First, the post mentions the Mission projects as "being woven around local needs". The quotes below the posts, from local corporators in Pune, paint a contradictory picture, instead emphasising a lack of local input in SCM projects. Second, "a holistic imagination of the Indian city of tomorrow" that can serve as a "template of our own" is identified as an achievement of the programme in the posts.

While Figure 31 in conjunction with the abovementioned quotes restate the divergence of narratives within the state surrounding the SCM, the quotes from my respondents also shed light on why that is the case. The social media posts, from an entrepreneurial bureaucrat—a part of the smart state—display the vision of smart city which exists perpetually in a future time. The corporators, on the other hand, are a part of the older state which is deeply embedded in local politics. The compulsions of present-day politics are what drive these corporators and their envisioned Present-Future of smart city. Thus, there exists a temporal contestation amongst state institutions and actors.

This temporal contestation can perhaps be seen as an outcome of the attempt at designing institutions that can further the expansion of capital. In his intellectual history of neoliberal globalism, Slobodian (2018, p. 2) argues that the neoliberal project's preoccupation was to create institutions "not to liberate markets, but to encase them, to

inoculate capitalism against the threat of democracy". This finds a direct parallel with the decision and design of the SPV, which was charged with the execution of smart city projects, with the intent of bypassing the ULB and the pressures of local politics it finds itself embroiled in.

By positioning the SPV and the smart city in a future temporal space in a way that disassociates them from politics, politics itself is relegated to the realm of the past. Politics is what *slows* down the experience of time, with its contestations, pulls, and pressures, making it harder to accelerate like the Ferrari. The state institutions that are entrenched in politics and its messiness then, hark back to an older time, an older, underdeveloped nation. In this way, the attempt is to create an orderly, utopian space for capitalist expansion.

As argued in previous chapters, the smart city exists in a space marked by cross-cutting spatio-temporalities. The project of creating this isolated temporal bubble of capitalist utopia, exists in dynamic interaction with the past and the present. This maps onto the state apparatus as well. The 'lighthouse' state of the future exists in dynamic interaction with the local corporation of the present (and carrying legacies of the past). In Pune, the PMC actively rejected this relegation into the realm of the past and the attempt to bypass it. It has asserted itself in this temporal contestation in various ways.

First, it tried to make in-roads with the SPV, by getting the SPV rules modified such that the presence of five corporators on its Board of Directors was made mandatory. These corporators were powerful elected functionaries within the PMC such as the Mayor, or the Leader of Opposition and not necessarily the corporators representing, Aundh, Baner, and Balewadi. Through some of my interviews what was highlighted was that these strong corporators also tried to use the SPV funds and decision-making powers for

their political benefit in the initial phase of SCM's implementation—either to initiate projects that would serve their wards or through kickbacks. The following quote demonstrates the same:

> The PMC was upset from the very beginning with the SCM—their powers were being taken away. They delayed approvals for projects that the PSCDCL would send their way. They were never happy. The approval condition would be (like it often is) that development work would happen first in their wards. – Interview with Veer, Journalist, Pune, 10/10/22

However, the ABB corporators apparently also exerted control over the execution of SCM projects informally (and even illegally as my previous chapter showed). So much so, that a journalist working at a local daily mentioned,

> ABB corporators have been taken in confidence for smart city works. If the corporator says no, then no work is done. A road also cannot be dug up without the corporator's approval – Interview with Ravi, journalist, Pune, 12/12/22

In response, the SPV made changes to the CEO's position. Earlier, the Municipal Commissioner of the PMC (an IAS officer) served as the CEO of the SPV. But after 2018, the two roles were separated. The CEO for the SPV in Pune was selected and worked separately from the Municipal Commissioner. Following this, after the initial couple of years of smart city projects, progress stalled significantly. A prominent reason for this was that the PMC sought to re-assert itself through stalling the processing and issuance of Transferrable Development Rights (TDRs), and consequently land acquisition for SCM projects. In the next sub-section, I discuss this in detail.

7.2.1 TRANSFERRABLE DEVELOPMENT RIGHTS AND LAND ACQUISITION IN SMART PUNE

> TDR is a technique of land development, which separates the development potential of a particular parcel of land from it and allows its use elsewhere within the defined zones of the city. It allows the owner to sell the development rights of a particular parcel of land to another. This entitlement is over and above the usual FSI available for receiving plot in accordance with the prevailing laws and

> regulations, which entitles a landowner to construct additional built-up area on his existing building or vacant land (NITI Aayog, 2020, p. 6).

TDR is a technique of monetising land, a part of the Value Capture Finance (VCF) Framework that guides Central, State, and local governments in India when it comes to developing land. It works on the premise that the "most fundamental asset" owned or managed by States and ULBs is land, and that appropriately leveraging that asset and extracting its value can help governments meet some of the costs of development projects (NITI Aayog, 2020, p. 4). Value Capture methods are practiced by governments globally, working on the principle that governments' policy decisions and investments in infrastructure have positive spillover effects—they appreciate the value of land and buildings in the vicinity where infrastructure is created, thereby benefitting private landowners as well. Methods such as the TDR are designed to capture some of the impact of monetary appreciation and provide a source of income to the government, which in principle, is supposed to spur further investment in development projects (MoUD, 2017).

Evidently, TDR is a market-based mechanism. Technically, a TDR is an award given to a landowner in lieu of foregoing their plot of land and surrendering or gifting it to the ULB or an urban development authority for its repurposing for public use. A TDR certificate specifies the built-up area[34] the landowner can sell to a third party (usually a real estate developer). They work by way of Floor Space Index (FSI)[35] credits. The landowners can sell these TDRs to real estate developers/builders who would get additional FSI to undertake more construction on their plot of land.

[34] Built-up area refers to the total carpet area of a property, plus the total area of the walls, balcony, terrace, etc.
[35] Floor Space Index (FSI) refers to the ratio of the total built-up area of all floors to the total plot area. For example, an FSI of 1 on a 100 square metre plot would translate to 100 square metre of built-up area on that plot of land.

The mechanism of TDR and its underlying principles as described above, operates with the logic of the smart, corporatised state. In the quote provided at the start of this sub-section, NITI Aayog—the national government think-tank established in 2014, replacing the older Planning Commission—explains TDR by saying that it "separates the development potential of a particular parcel of land from it and allows its use elsewhere within the defined zones of the city". This is striking, for when referring to the separation of "development potential" from a given geographic space, the separation is occurring in temporal space—the future of that land is sought to be disassociated and dis-embedded from its physical space, such that it can be deployed elsewhere. This holds parallels with the creation of time enclaves through the smart city—spaces which are envisioned to occupy a future temporal space from the get-go, serving as lucrative spaces for capital's expansion. In other words, TDRs also promote the creation of spatio-temporal bubbles which can facilitate speculative urban development, as also described below:

> TDR is a market-based tool. Hence, the ULBs / planning authorities would need to conduct a market demand assessment and *identify the zones/ corridors / specific land parcels where there may be demand for future development* (NITI Aayog, 2020, p. 12, emphasis added).

The ULB is supposed to identify the areas where there "may be demand for future development" and designate them as 'Receiving Zones', where builders and real estate developers may use the additional FSI gained through the purchase of TDRs. The areas where land is acquired by state authorities from private owners are designated as 'Sending Zones'. In Pune, (as discussed in Chapter 6), rampant real estate development has occurred in smart city areas after the SCM, wherein builders and developers have utilised the additional FSI given to them to create high-rise residential and commercial complexes in said areas.

While the VCF framework was established by the Ministry of Housing and Urban Affairs in 2017, the PMC has been using the mechanism of TDRs since the 1990s (Interview with Rajesh, academic, Pune, 19/10/22). In Pune, for smaller projects within municipal limits, land acquisition is typically done by the PMC, as per the *Maharashtra Regional and Town Planning Act, 1966*. The municipal corporation acquires land from landowners in particular areas (for preservation, construction of civic infrastructure, or anything else deemed as a 'public purpose') and provides the landowner with a TDR which they can monetise by selling it to a third party. What is noteworthy here is that the state institution deemed older and backward—the ULB—has been utilising this smart state mechanism quite extensively, even before the SCM. In other words, TDRs offer another window into this temporal contestation within the state. Ponder the following statement:

> The SPV has a very fast decision-making process. They just need to call a meeting of the Board of Directors to sanction work. They can sanction and approve the same work within 1 month, that the PMC would take 1-2 years to do. But for actual implementation they need the PMC. Land corporation *ke paas hai, saari* authorities *bhi corporation ki hain. [The corporation has the land; all the authorities are the corporation's as well.]* – Interview with Pradeep, politician and proxy corporator, Aundh, 20/2/23

Here, Pradeep, himself a politician, acknowledges the supposed speed of the SPV—its ability to expedite development outcomes as compared to the PMC, whose embeddedness in politics slows it down. However, he also acknowledges that bringing this future to the present requires mediation from the PMC, and that in this present, the PMC holds the power. In the Pune SCM, the PMC is the state body that acquired land and handed it over to the SPV for development. The SPV was supposed to develop the area given to it and hand it back over to the PMC. This control over land in the city was expressed by functionaries of the SPV as well, albeit in a less satisfactory manner. Pratap,

an engineer working for the Pune SPV lamented this exertion of control by the local corporation by saying:

> There are a few different ways in which there has been PMC's interference. One, that all public property belongs to the PMC. *Yeh jagah corporation ka hai* [This area belongs to the corporation.] Everything we make we hand over to the PMC. So, if a shop-owner has given up his area for building a wide path, he may want to put his sign boards/mannequins outside on the footpath as his shop area has reduced. But the PMC will categorise that as encroachment and initiate proceedings against the shop-owner.
>
> Secondly, property owners don't get [monetary] compensation for giving up their land for development work. They only get TDRs. But there is so much TDR in Pune now that its rate has fallen down. Finally, earlier when the Municipal Commissioner of Pune was also the CEO of PSCDCL, there was more interference from the PMC. Later on, when the two positions have been separated, there is less interference. – Interview with Pratap, Engineer, PSCDCL, 29/11/22

What emerges repeatedly is that the PMC sought to assert itself in the implementation of the SCM. The PMC is by no means a state body that is against capitalist development—the politician-builder nexus in the city, as discussed in the previous chapter, exemplifies that. However, the local corporation is not in favour of the abstract Future-Future of the smart city that the smart state propagates. The grounded smart city is informed by the local political economy and the associated politics of land, particularly in the present. Thus, it is local politicians, along with the developers, who have sought to imagine a future of the smart city from the present, and for the present. Thus, the temporal contestation amongst the PMC and the SPV is tied to contestation and control over geographic space and displays the state's workings in temporal space.

In many places in Pune, land acquisition for the purpose of executing smart city projects did not happened because property owners were unwilling to give up their plot of land. Through my fieldwork, I could identify two reasons for this. One, the people who gave up their property in the initial phase of the SCM faced a lot of delay in getting their land acquisition papers processed by the PMC and could not benefit from it. There is

ongoing litigation associated with some of these situations as well, with the land in question becoming disputed in terms of ownership. This delay in processing papers discouraged people from giving up their land in later phases. Two, due to land acquisition occurring only through the issuance of TDRs in Pune, so many residents hold TDRs in the city now that its market value has reduced. Thus, by selling TDRs to builders and real estate developers, residents earn less from the sale than they would otherwise (Interview with Pratap, engineer, PSCDCL, 29/11/22; Interview with Vinayak, resident, Aundh, 7/12/22).

The PMC, governing Pune's past and present, desires to be the only body governing its future as well. For the local corporation, pursuits or practices premised upon notions of the future, are driven by considerations of the present, and mediated by the present in their execution—its use of methods like TDRs to effectively maintain its own power illustrates that. Furthermore, the PMC has contested the exercise of distant time that has sought to keep it at a temporal distance from governing the smart city. In many ways, the PMC's assertion of its own power is what has stopped the envisioned spatio-temporal bubble of the smart city from actualising. Instead, what exists are cross-cutting spatio-temporalities in the smart city, creating a patchwork of development projects across the cityscape in Pune. The next section discusses this in detail.

7.3 CROSS-CUTTING TEMPORALITIES: THE PATCHWORK OF SMART CITY DEVELOPMENT

> Yes, the SPV has faced coordination issues with the PMC. On paper it is always a different story. On paper you can clearly say this is right and this is wrong. But implementation is always different. For example, under the 24x7 water supply project L&T [Larsen & Toubro] is supposed to be putting down pipelines in some areas. But there has been political opposition from the PMC against it. So, we have not been able to develop that road because it would have to be dug up again later. With respect to electrical and water supply work we have not got support from PMC. *Ground ki problems alag hoti hain* [The problems on ground are different.] – Interview with Pratap, engineer, PSCDCL, 29/11/22

The above quote from Pratap, working for the Pune SPV, highlights the role of politics in implementing the SCM. In its ideational form, the smart city can be envisioned to perpetually occupy a future temporal space—but the smart city in its grounded version, one that also exists in geographic space, does so by inhabiting the politics of the present, and in the present. In Pratap's own words, "*ground ki problems alag hoti hain" [The problems on ground are different.]*

The 24x7 water supply project was one that was designed by the SPV, aimed at providing all-round supply of clean, piped water to the residents of Pune. This was to be done using smart water meters that would be fitted in every household, monitoring and measuring piped water, with the aim of optimising and regulating water supply and its usage. This use of smart water meters to regulate water supply is a product of the "financialised water sector", visible elsewhere in the world as well (Loftus et al., 2016). As private firms become involved in managing water supply and provide the infrastructure for it, households become a human revenue stream in this model. Taking the case of England, Loftus et al. (2016, p. 320) argue that metering ensures that this revenue stream does not "behave in erratic and unpredictable ways" by incentivising regulated water consumption with little deviation. They further argue that this shift in the provisioning of water produces new subjectivities through the "disciplining technology of the water meter and new billing practices".

However, given the prevalence of informal settlements in Indian cities, there exists a robust, "unruly" political economy of water that extends beyond the state, stretching into social relations, such as kinship and intermediary networks, which are closely embedded in local politics (Birkinshaw, 2018). Notably, as also mentioned in Chapter 6, Pune has what is referred to as a water tanker 'mafia' that provides a private water supply through

tankers, with roughly 25-30%[36] of the water supply being illegal, particularly in informal settlements (Bari, 2022; Khairnar, 2018; Team HT, 2018). Thus, water is accessed not just through pipes, but through tankers, and unauthorised connections to the main water supply. As Nikhil Anand (2017) argued in the case of Mumbai, a "bloated" and "leaky" water supply system, with its attendant political economy, provides the residents of informal settlements with multiple points of access to water (tankers, pipes, politicians, municipal officials).

The installation of smart water meters through the 24x7 water supply project in Pune might have meant that the people living in informal settlements lose this multiple-point access to water. Moreover, metering would constitute them as a part of the 'revenue stream' and they would have had to pay for the metered water. Fearing a backlash from their political constituents in these settlements, corporators from the PMC protested the installation of water meters, and the project was stalled. However, since 2022, Pune has been under administrative rule and elections to the ULB have not taken place. During this period, the smart water meter project has been pushed through and several areas of Pune now have this metered water supply, with over 50% of the targeted installation of water meters completed (Kulkarni, 2025; Interview with Ravi, journalist, 12/12/22).

The 24x7 water supply project while designed by the SPV as one of the few 'pan-city' projects under the SCM, has wholly become a PMC project now, with the latter completely driving its implementation. Notably, it is the PMC without its corporators, i.e., the PMC being run by the smart, apolitical administrators, who have largely implemented this project. A change in actors has brought about a change in the institution, in a way that turns the local state institution itself into a site of temporal contestation.

[36] Anecdotal figure: Interview with Sahil, journalist, 11/10/22; Interview with Ravi, journalist, 12/12/22.

This contestation also occurs with different visions of the city and its residents in mind. In recent reports, after the installation of water meters, the PMC found that richer households which have domestic helps are consuming far more water than the prescribed limits. Interestingly, the domestic helps were assumed to be the reason behind excessive water consumption, and the PMC mentioned that it aims to create training videos and organise workshops for domestic helps to make them 'smarter' in terms of managing their water usage (Gadkari, 2024). This is in stark contrast to the corporator-run PMC, that delayed the installation of the smart water meters altogether.

In the case of the administrator-run PMC, the 'lighthouse' state, shining its light from the future, aims to bring the 'unruly' citizens into the realm of smart development. The endeavour to train them particularly to manage water usage, is an endeavour to produce the kind of consumerist-subjectivities Loftus et al. (2016) describe, mentioned earlier. However, the old state is embedded in the local political economy, constrained by the political pressures exerted by the citizenry, and the claims they make on the state in the present and it must operate accordingly. Thus, for the most part, smart city projects have been unsuccessful in implementation. The drive to escape the messiness of democratic politics and its 'slowness' is what has grounded the smart city to a halt. The Ferrari traverses slowly, with resistance, like the bullock cart instead.

This has resulted in a patchwork of smart city development when it comes to the ABB's physical landscape. The issues of land acquisition significantly shaped the implementation of SCM projects on ground, whether they be the redevelopment of roads, 'placemaking' initiatives, or sanitation projects. Most of the smart parks that were to be developed to create more open spaces under 'placemaking' initiatives remain on paper. The smart parks that have been created are small, usually less than 1 square kilometre in area. When it comes to roads, this inability to acquire land has resulted in some stretches

of the selected roads being redesigned and developed, while some patches in between remain the same (see Figure 32).

Figure 32: Stretch of pavement on ITI Road, Aundh



Above: The pavement ends abruptly, going from concrete to soil. The PSCDCL says this is because it does not have the land in that particular stretch to build the pavement.
Source: The Author

Not only this, but the roads that exist parallelly to the pilot smart road in Aundh, lie in stark contrast, lacking in even regular pavements. The ICT elements installed on this pilot road, such as the Emergency Call Boxes, remain out of sight and unused. As shown in Chapter 4, other initiatives such as smart toilets for women created through repurposing old buses, remain abandoned and un-serviced. These projects, developed as 'lighthouse' projects—as models for future development, remain frozen in time—a glimpse of futurity, but gathering dust like artefacts of the past.

> In the Aundh ITI [Industrial Training Institute] road area, buses get jammed in the evening. But no one is taking accountability. Each and everybody should be accountable but only a blame-game is happening. They [the SPV] stopped taking citizens' feedback after 5-6 meetings. They had planned works on gardens, parks, schools, but now they are working only on roads. There is an image shift that has happened that smart city is only about roads. They should have done things that connected to the people instead. Instead, they have just done bits and pieces. They just wanted to cover all the points (roads, parks, amenity spaces, buses, sanitation etc.). So, they have done a little in each category but as a whole *kuch dikh nahi raha hai* [as a whole nothing is visible]. Only a patchwork is visible, only to show that funds have been utilised. – Interview with Vinayak, resident, Aundh, 7/12/22

This patchwork development, as Vinayak also bemoans above, has led to a territorial division of the smart city amongst state institutions, leading to further fragmentation of the Pune's governance. As a consultant remarked to me, "The smart city SPV becomes a department of its own with its own fiefdom" (Interview with Varun, consultant, PwC, 24/6/23). The temporal contestation between the smart city and the PMC, bifurcates geographic space into territories wherein the smart state and the old state operate. In a scenario, where the existence of numerous state bodies in urban governance, from ULBs, to State governments, to parastatals such as regional development authorities (Pune Metropolitan Region Development Authority, in the case of Pune), already fragments the administration of urban spaces, the SCM adds another layer to this fragmentation, one along the lines of differing temporalities and concomitant visions for city development.

Tejashree, a resident of the Aundh area, and a journalist who was closely covering the implementation of SCM projects in the ABB areas, shared an anecdote with me, from an interaction that she had with the CEO of the Pune SPV. She had met him to acquire information for a news report that she was writing. She recalled that when she asked the CEO about the smart city works' progress,

> He took out the map of Pune, pointed to various areas and said, '*Yeh mera area hai. Yeh raasta hamare paas hai. Yeh road PMC ka hai. Yeh road kiska hai, pata nahi' [This is my area. This road belongs to us. This road is PMC's. Whom this road belongs to, I don't know].*
> What happens to inner roads, bylanes them? Nobody looks after them?
> – Interview with Tejashree, journalist, 14/12/22

What this recollection of the CEO's remarks reflects is a territorial division of Pune by the internally differentiated state. The contestation amongst state institutions in temporal space shapes the development of physical space in the city. As mentioned earlier, land is a key resource that governments possess, and thus, it is unsurprising that there is a strong element of territorial control when it comes to maintaining power, legitimacy, and even identity of state bodies. In my interviews, it was emphasised that even if the Pune SPV developed some spaces under the SCM, they fell into disuse and were not maintained because the PMC refused to do so, and the SPV often did not have the funds or sometimes the legal mandate to maintain them (Interviews with Asha, ISCF, 30/3/23; Rakesh, resident, 7/12/22; Tejashree, journalist, 14/12/22; Veer, journalist, 10/10/22). Spaces that fell in-between or outside any of the state bodies' 'fiefdoms' remained outside the domain of this temporal contestation, and outside the realm of any kind of claim-making on the state as well—either for an expected service not provided, or for public infrastructure not rightfully provisioned.

Interestingly, the PMC did not exhibit a similar reluctance to owning smart city projects when they were not tied to development over land that falls in its municipal limits. For instance, in Pune, one smart city project that was attempted was digitising the participatory budgeting process. Each year, before the annual budget is created by the PMC, citizens have the option to provide their suggestions on the city's annual budget allocations. There is a two-week window wherein people can share their input with the local corporation using paper-based forms. Through the SCM, one of the projects taken up

by the India Smart City Fellows working with the Pune SPV, was to digitise this process and create an online form through which suggestions could be submitted. Asha, the fellow working on this project, mentioned that the code for designing this online form was to be open source and that the project's ownership, once it was created, was to lie with the PMC. However, the PMC refused to share the source code with other cities, even the ones selected under the SCM. Asha mentioned that she had to remind the PMC that "this is a smart city model—it is supposed to be a lighthouse for other cities" (Interview with Asha, ISCF, 30/3/23).

The PMC's interest in controlling the digitisation process is driven by the desire to have control over its own budgetary process, one that shapes the everyday functioning of the municipal corporation. The local corporation's power and authority, legally, are tied to the city's geographic limits. Therefore, it serves the PMC no purpose to act as the 'lighthouse' state of the future, guiding other cities (beyond its territorial limits) through its smartness. The SPV, on the other hand is a multi-scalar body, operating in the city, but headed by consultants and bureaucrats who work across the scales of the state, in close connection with the national Programme Management Unit in Delhi. The SPV's scale of operation, logic of operation, and politics of operation differ significantly from the municipal corporation. Thus, the implementation of the SCM on the ground has resulted in this territorial division of Pune, further rupturing the accountability of the state to its citizens.

7.4 CONCLUSION

In this chapter, I detailed how the SCM with its creation of the SPV, has led to a temporal contestation amongst state actors and institutions in Pune. As this contestation emerges through the different conceptualisations of the future of the smart city by different state actors and institutions, it follows from and builds on discussions from

previous chapters in this thesis which unpacked various dimensions of the futurism of the smart city.

The SPV, with its global consultants, and entrepreneurial bureaucrats is emblematic of the smart, 'lighthouse' state. It sees itself as operating in a temporal space inhabiting the future, from where it desires to shine a path forward to fast-track development. This smart state seeks to operate like an enterprise and aims to deliver its services to consumer-citizens, facilitated by technology and expertise. This state projects itself as depoliticised—politics is what slowed down the older state with its contestations and messiness. Instead, the supposed disassociation of this state body from politics is what enables it to leave the past behind.

Notably, this smart state carries continuities from the postcolonial developmental state in India in the decades following independence. The latter state operated with power coalesced around the national scale, initiating nationally led development in the country, and like the smart state now, relied on apolitical 'experts' to craft rational and scientific development plans. Further, both the smart state and the postcolonial state conceive of time linearly, and development as occurring along it—moving from a stage of impoverishment and underdevelopment to a stage of development resembling that of other developed spaces in the world, and other world cities in the SCM's case. The difference is that the smart state seeks to accelerate along this linear development trajectory and arrive at the envisioned, utopian end point sooner. Finally, both the smart state and the postcolonial state attempted to bypass the local municipal corporation in the city—the former through the SPV, and the latter through Land Improvement Trusts and other parastatal bodies. Thus, the national state's vision of the future smart city as encoded into the programme design is informed by the legacies of the past, driven by experiences of the

past, and seeks to overcome the past, revealing in the process the Past-Future of the smart city.

The attempt at keeping the local corporation in a position of marginality takes a different flavour in the SCM. Through the deployment of the SPV, there is an attempt to deploy temporal power to keep the local corporation at bay. The SPV is the corporatised 'lighthouse' state, with the foresight of what development ought to be like in the future. The local corporation on the other hand is old, inefficient, and deemed incapable of the necessary foresight to undertake the bold, accelerated development envisioned through the smart city. Thus, drawing from Datta (2024), I argue that there is an exercise of 'distant time' within the state as well, that seeks to keep the local corporation at a temporal distance from the smart state.

In Pune, this exercise of temporal power has been deeply contested and even subverted, with the PMC seeking to assert itself throughout the course of the SCM's implementation. It has predominantly used its control over land in the city, and the mechanism of TDRs to do so. In fact, this temporal contestation between the state institutions has shaped the physical landscape of the smart city. It has led to patchwork development in Aundh, Baner, and Balewadi, with odd pockets of SCM projects interspersed within the cityscape. The smart city projects, while initiated as model projects to be replicated in the future, remain dust-covered and frozen in time, and so far, have not been replicated in other parts of Pune. For the most part, the PMC refuses to manage these smart projects, because they do not fall in its turf and the SPV maintains a distance from the local corporation's sphere of influence—the areas beyond ABB, or the rest of Pune. What exists in Pune then is a territorial division between the smart state and the old state, within the city limits, and a further fragmentation of urban governance.

In the next and final chapter, I tie together the findings and insights from the empirical chapters in this thesis and provide a cohesive account of the qualitative transformations underway in the Indian state, as evidenced through the SCM. In particular, I analyse this dissonance in the state further—the emergent smart state of the future, and the older, explicitly political state of the past, also analysing the implications this dissonance holds for state-society relations. This chapter along with the final one, answers the third and final research question on what the SCM tells us about the Indian state in the contemporary moment.

CHAPTER 8: CONCLUSION – THE SPLIT STATE

"From a secretarial and legal point of view, the biggest challenge has been to follow guidelines from both the Companies Act, and the Central Government. There is confusion and [there are] challenges over which regulations to follow."

– *Ajmal, Company Secretary, PSCDCL, 7/9/22*

In the above quote, the challenges that Ajmal is referring to are the ones he faced in the implementation of the SCM as the Company Secretary of the Pune SPV. Ordinarily, a company secretary of any company is an employee occupying a position of seniority, charged with ensuring the company's compliance in its operation and governance practices with the laws and regulations of the territories it operates on. Company Secretaries also serve as the primary point of contact between the company's shareholders, board members, and regulatory authorities in the area. Thus, unsurprisingly, the primary challenge that Ajmal faced in his work pertained to the set of laws he was supposed to ensure the entity's compliance with. While the SPV is technically a company, it is also a government body. This confusion over the legal classification and operation of the PSCDCL belies the deeper nature of the problem. At its heart, the SCM, and my investigation of it, as presented in the preceding chapters of this thesis, reveal a qualitative transformation in the nature of the state that is underway in India.

The three futures of the smart city, as discussed throughout this thesis, underscore this very transformation. The SPV, tasked with the formulation and execution of the smart city projects, not only expands the internal differentiation of the state but reveals the temporal axis along which the internal differentiation and contestation within the state is situated. The SPV exemplifies the emergent, smart, 'lighthouse' state that presents itself as efficient and apolitical, occupying a temporal space of the future. The SPV's vision of the smart city is one that perpetually exists in the future. This future is full of hope, aspiration, and the material prosperity associated with being 'developed'. For this state, smartness is

performed through things like Smart City CEOs conferences, logos, aesthetics, and marketing (as discussed in Chapters 4 and 5). For local political actors, and the local corporation—often labelled as being too slow, too corrupt and too entrenched in the political apparatus—the future of the smart city is about gains to be made in the present, whether economic or political.

This temporal contestation within the state shapes what the smart city manifests as when its airy and nebulous conceptualisations are grounded in space. Throughout this thesis, using fieldwork data from the Pune smart city in conjunction with extensive documentary analysis, I probed what is meant by a smart city, its futurism, and what the SCM tells us about the ongoing transformations in the Indian state in the contemporary moment. My framework for analysis was guided by what I witnessed in my field site, which led me to scholarship that critically analyses temporal geographies of smart cities (Datta, 2024; Halpern & Günel, 2017; Kitchin, 2019; 2024; Olmstead, 2019; White, 2016).

In this thesis, I have drawn from this scholarship and extended it, firstly, by showing how the smart city spatialises time and re-orders spatio-temporal relations between the old city and the smart city. The data from Pune smart city illustrates that. Secondly, in this thesis, I have shown how the state's operation in practice occurs not only across geographic scales, but also across temporalities. The contestation between the SPV, constituted by global consultants and entrepreneurial bureaucrats, with the local municipal corporation and political actors in Pune exemplifies this. My fieldwork also showed that smart cities are always positioned at a point inhabiting an imminent future to create these 'time enclaves' that are at a temporal distance from the rest of the city, functioning as lucrative zones for speculative profit-making.

Using this lens of the smart city and the SCM to analyse the state-in-practice provided fertile ground for understanding the role of temporality in not only the state's workings, but also in policy-making and development planning. This thesis forms a unique bridge between two bodies of literature, namely, the state-in-practice and temporalities in urban geography. In doing so, it creates conversation between these two bodies of literature to provide an original account of the state's own workings in temporal space—something that existing scholarship provides an incohesive account of.

This project is limited in its scope, and there exist many avenues to take this further. In what follows, I first offer a recapitulation of the findings and insights of this thesis, along with a discussion on the same in section 8.1. I delve deeper into this ambiguity on the nature and classification of the SPV, as encapsulated in the quote from Ajmal I opened with, analysing what it tells us about the state in India. In doing so, I tie together the findings of my empirical chapters and answer the third research question set out in the first chapter of this thesis—what the SCM tells us about the Indian state in the contemporary moment. I conclude in section 8.2 by reiterating this thesis' primary analytical contributions to existing scholarship. Following that, I discuss the scope of this project, along with avenues for further research and explorations of the changing nature of the state and the study of temporality within the state and development planning.

8.1. FINDINGS AND DISCUSSION

In the first chapter, I introduced the concept of a smart city as a socio-technical imaginary in which challenges to future urbanisation are envisioned to be solved through the 'right' deployment of technology to create a prosperous urban future. I discussed how the idea of a smart city, as encoded in the SCM, is different from its Global North counterparts in the ways in which it has been (un)defined and operationalised, and also in

the way the creation of 100 smart cities in the country is closely tied to postcolonial aspirations of overcoming historic underdevelopment (Datta, 2019).

Interestingly, the state-directed futurism of the smart city is entangled with the past and premised upon linear notions of time, akin to 20th-century modernisation theory. Thus, in this thesis, I investigated the inherent futurism of the smart city and used that as a lens to understand ongoing transformations in the Indian state. To that end, taking the case of the SCM, the three primary research questions laid out in Chapter 1 were: (a) What is 'smartness'? Whom is it for? (b) Why is the smart city always conceptualised as inhabiting a point in the future? and (c) What does grounding the smart city in temporal space tell us about the Indian state-in-practice in the contemporary moment?

Having laid out the research objectives of this thesis, and their significance, I then discussed the structure of programme implementation of the SCM. In particular, I discussed how smart city projects are not implemented through the urban local body, but through a unique Special Purpose Vehicle, that operates like a company and heavily utilises the 'expertise' of consulting firms. Furthermore, another key feature of the SCM that I introduced was its area-based development or 'lighthouse' approach in which smart city projects are concentrated within a "compact area" in the city (MoUD, 2015, p. 5). I also provided context for the empirical case studied in this project, the Pune SCM. I discussed how the city's own IT industry and its selection as one of the first smart cities under the SCM made it an appropriate case to study. I concluded this chapter by providing a roadmap for the rest of the thesis, highlighting how I identify and analyse three novel and distinct futures of the smart city as evidenced through my case.

Following this, in the second chapter, I critically reviewed the literature that forms the analytical framework for this thesis. I reviewed two vast bodies of scholarship: on the

state-in-practice, and on temporalities in urban geography, particularly in the context of smart cities. I established that a key gap in scholarship can be identified by putting these two bodies of literature in conversation with each other—literature that studies the state in a grounded way does so by only situating it in geographic space, not analysing the element of temporality in the construction of space or the state's workings. On the other hand, literature that studies the constitution of space both geographically and temporally, does not bring in the differentiated and internally contested workings of the state in its analyses. Thus, I bridged the gap between the two by situating the state in temporal space, and in this chapter, I provided an overview of how I proposed to do the same. I also discussed literature that forms the context for this thesis in Chapter 2, by discussing the restructuring of the Indian state post the liberalising economic reforms of 1991 and situating the rise of the Smart Cities Mission in that context.

In Chapter 3, I laid out the research methodology that guided and informed this work. I elaborated upon my research design—the use of a combination of inductive and abductive logics of inquiry, and the qualitative case study method. I highlighted that as I sought to study the smart city and the state-in-practice in a grounded way, I used a case study to tease out granularities and obtain context-sensitive data. I explained how the case is not being used intrinsically, but instrumentally—the Pune SCM's workings and ground-level implementation are being used to study the state-in-practice. Further, I clarified how the case method is not being used to draw out any kind of statistical generalisation, borne out of the principle of representativeness, but to draw out analytic generalisations pertaining to state restructuring in the context of liberalisation and globalisation. In this chapter, I also detailed the sources of data I used—interviews, documents, photographs, observations, and secondary literature. I elaborated upon the methods of collection and tools of analyses used, along with the methodological limitations and ethical

considerations involved in this project. I also discussed my own positionality as a researcher.

Following this, my empirical chapters probed the futurism of smart cities, as evidenced through the SCM, and the Pune smart city, in particular. Through these chapters I bridged the two bodies of literature discussed in Chapter 2, by situating the state in temporal space. I identified and formulated three kinds of futures of the smart city—its Past-Future, its Present-Future, and its Future-Future. The first one refers to a future that is imagined from and through the past, the second refers to a future that is envisioned for objectives in the present, and the final one refers to a future that perpetually exists in the future. In identifying these three futures, I advanced Adam and Groves' (2007) work on entangled temporalities, in which they also examine how and why certain futures are recruited and sanctioned. Crucially, while my conceptualisation of the Present-Future is similar to Adam and Groves' (2007), the other two futures I identified are unique and further their work.

In Chapters 4 and 5, I discussed the future of the smart city that always exists in the future (Future-Future). As Nigel Thrift (2005, p. 3) argues, "capitalism is performative: it is always engaged in experiment, as the project is perpetually unfinished". The anticipation of the future is what prompts potential responses to new drivers, in ways that can necessitate and facilitate the perpetuation of the system. In Chapter 4, I discussed this performance of the futuristic smart city, exemplified through aesthetics, symbols, and logos. In this ideational form, the smart city is informed by an abstracted, middle-class consumerist vision, and is not necessarily sought to be connected to either the past or the present. In its ideational form, this is the future of the smart city that is perpetually in the process of becoming.

In Pune, the attempt to bring this vision of the future to the present resulted in the creation of smart parks squeezed in between high-rise residential complexes, commercial shopping areas with environmental sensors, wide pavements and wide roads, and cycle lanes, presumably to encourage families and individuals with private vehicles to switch to cycling as a mode of transportation. This vision of the city was presented as a model for future city development. All smart city development work in Aundh, Baner, and Balewadi has been marked with the Pune smart city logo—a peacock fused with a machine. This logo is symbolic of the cybernetic logic that informs the technocratic smart city vision of a networked system running on data, producing optimal solutions for the city to run efficiently. This future of the smart city has been performed in various ways, through its aesthetics that are materialised in pockets across the ABB areas to events like Smart Cities Conclaves, CEOs conferences, and through social media marketing.

The Future-Future of the smart city has been rendered even more of a performance in Pune by the fact that any attempt at creating this spatio-temporal bubble was actively contested and subverted by local political actors and the municipal corporation. For these actors and this institution, the creation of temporal distance between the smart city and the rest of Pune infringed upon their political turf. Thus, the local corporation sought to either stall the implementation of SCM projects or subsume them under its own ambit. For example, the so-called smart health clinics in Pune wherein patients' health records are supposed to be digitised, effectively remain paper-based primary health clinics run by the PMC itself. Thus, most smart city projects remain active only on paper, or far removed from their envisioned futurity.

In Chapter 5, I discussed the role of consultants in the implementation of the SCM. From the formulation of the programme at the national level, to its implementation in cities, consultants have performed pivotal functions. In fact, their involvement in the SCM

across networks of governance shows the changing nature of the state as they are a part of what I have called the smart state or the 'lighthouse state' in previous chapters. This emergent state seeks not only to protect the interests of capital and facilitate its expansion as ample literature on the Indian state suggests (Bardhan, 1985; Chandra, 2015; Chatterjee, 2017; Kohli, 2006a; 2006b; 2009; Mazumdar, 2008; Sud, 2009; 2014), but to also become a co-participant in enterprise itself. The corporate form of this state, and the emphasis on entrepreneurial bureaucrats operating as CEOs of smart cities that are likened to start-ups, as discussed in Chapter 7, are reflective of this.

This state utilises temporality to distance itself from the pulls and pressures of politics. The smart state positions itself in temporal space *ahead* of the older, politically entrenched state. Not only temporally, this positioning mirrors the normative qualities associated with a more progressed developmental stage (as dictated through modernisation theory logics, also discussed in Chapter 1)—the smart state presents itself as more efficient, ambitious, prosperous, and global in its outlook. In Chapter 1, I mentioned how this idea of evolution over time is imminent in linear notions of development, like a seedling growing into a tree (Esteva, 2019). The smart state styles itself as an advance over the older state and its statecraft, having a vision for the future that the older state does not. In a similar vein, the smart state utilises the expertise of global consultants, especially from powerful, international management consulting firms, and seeks to be more business savvy and technology savvy—attributes that have typically not been associated with *sarkari* (government) offices in India, which have instead been associated with images of piles of files.

As I discussed in Chapter 5, these consultants are difficult to differentiate from government officials in the tasks they perform when it comes to the SCM. They sit in the offices of the Ministry of Housing and Urban Affairs in Delhi, manage the data collected

from smart cities across India, and liaise with officials across departments and across the scales of the state. In the words of my informant, also quoted in this chapter, consultants seek to be the 'fourth lion' or the fourth tier of government in India. While they perform the work of government, they are not bound by the same rules and principles, technically being employees of the management consulting firm they have been hired by. Furthermore, despite their portrayal as neutral arbiters of expertise, the exponential rise of management consulting firms in governance in India can be situated within the rise of the incumbent ruling party nationally, 2014 onwards.

Consultants work towards embedding the interests of capital, acting as agents of greater financialisation, neoliberalisation, and economic globalisation, as literature elsewhere also suggests (Boussebaa & Faulconbridge, 2019; Mazzucato & Collington, 2023; Möller, 2021). In the case of the SCM, and the smart city more broadly, the interests of technology firms have been sought to be furthered. As I highlighted in Chapter 5, PwC promoted the idea of having an Integrated Command and Control Centre in every smart city—a centralised data centre paralleling IBM's Intelligence Operations Centre. This data centre is powered by software and hardware provided by technology firms, and often run by a private company as well. In the case of Pune, the data centre and the smart sensors have been set up by the multi-national conglomerate, Larsen & Toubro (Interview with Tejas, ICCC Head, Pune, 14/9/22).

Consulting firms' forte lies in compressing timelines, allowing for faster acceleration across these imagined linear development trajectories. As Felix Stein (2018) argues, consultants commodify and sell speed. Paradoxically though, the envisioned smart city also exists in the Future-Future for consulting firms. They offer a faster route towards reaching this imagined destination existing in a future temporal space, not reaching it, necessarily. The imminence of the smart city, and not its actualisation, is what enables the

entry of consulting firms into the state apparatus and necessitates their persistence. Thus, temporal distancing—of the smart city, of the SPV, of consulting firms—becomes another modality to pursue capitalist expansion while attempting to inoculate it against the pressures of democratic politics.

In Chapter 6, I explored the future of the smart city as conceived from the present (Present-Future). The tag of 'smart city' marks the area as exceptional through its futurism. This exceptionality is utilised by real estate developers and local political actors to promote speculative real estate development in Baner and Balewadi—the 'test lab' areas for SCM projects. I argued that the lighthouse approach or the area-based development approach of the SCM spatialises time in a way that creates what I called 'time enclaves' within the same geographic space of the city. Operating in a future time, these enclaves enable the temporal distancing of smart city areas from the rest of the city, creating even more space for the expansion of capital—if there is a space that perpetually operates in a future time, then there always exists a possibility of making more profit.

This possibility is premised on conjectures regarding the imminence of the utopic smart city and its promise of prosperity and ideal urban living. Real estate developers, in a close nexus with local politicians, conceive of the smart city's future and its potential gains, from the present. Unsurprisingly, this resulted in rampant real estate development, without due regard to environmental sustainability in Baner and Balewadi, with Baner recording the highest number of residential real estate sales in Pune in 2024 (Punekar News, 2024).

In Aundh—constitutive of the selected lighthouse areas but considered to be developed even before the SCM began—the implementation of the SCM was made possible by the political ambitions and entrepreneurial drive of a powerful local political

actor. This politician, Pradeep, wanted to bring the smart city out of its Future-Future to its Present-Future. To that end, he was even willing to bypass existing laws to acquire the land to make that happen, suggesting that much like other zones of exceptions, such as SEZs, the smart city also perhaps facilitates dispossession to an extent. For Pradeep, the perpetual futurism of the smart city was of less concern than an imagined future that served his aims and objectives in the present.

Thus, the smart city in Pune exists across cross-cutting spatio-temporalities. Further, it has resulted in a reordering of spatio-temporal relations between the old city and the smart city. The older parts of Pune, which developed in the colonial period, are considered too old for large-scale smart city interventions while the smart city areas, which were previously agricultural areas existing on the outskirts of the city, have become real estate hotspots, deemed as upcoming areas and representative of futuristic urban living rather than their agrarian pasts. In this way, despite being geographically proximate, the temporal distance between the old city and the smart city has widened and the spatio-temporal order of relations has been inverted.

This SCM's lighthouse approach is also an outcome of the smart state's approach to policy-making and governance. To elaborate, lighthouses are points of brilliance in darkness. They assist in navigation and guide sailors who would otherwise be lost at sea, unable to reach their destinations. The objective of this programme was to set these lighthouses up such that they may guide cities, or even parts of a city—the underlying assumption being that from where the lighthouse stands, it would be looking into darkness. The metaphorical sailors looking at this lighthouse for guidance would be looking for direction to move towards this impending future of urbanism, replete with opportunity. By shining brilliantly, the lighthouse would illuminate the darkness around it.

There is something profoundly undemocratic about this approach, reflected in the motivation to set these points of brilliance up rather than equip all cities and all areas of the city to be their own sources of illumination. Which areas become lighthouses then? In the case of Pune, it was the areas proximate to the IT industry in the city, and, as already discussed in Chapter 4, the rationale behind this was that the people living in these areas, largely IT professionals, would be more receptive to smart city ideas and projects. In Pune, enormous sums of public money were directed towards these small pockets of the city. Recall here, that the smart city discourse has itself been popularised by technology firms in conjunction with consulting firms to create a market for their own services and products.

The smart state, then, is not motivated by questions of democratisation, equality, and upholding the traditional model of the state-citizen social contract, wherein the state is the guarantor of certain rights and provider of public services, in lieu of taxation and the cession of certain political powers to the state by the citizenry. Instead, the smart state is motivated by the desire to collaborate with capital and be a co-participant in enterprise and profit-making. Its self-concept is governed by a different state-citizen social contract wherein it is the provider of certain services to an intended 'smart' citizenry. The smart state is exclusive, not inclusive—from the people who constitute it, to the 'expertise' that it is driven by, to the citizenry it aims to cater to.

However, this smart state by no means replaces the older state but co-exists with it. The quest for social justice alongside economic growth, which the Indian state has grappled with since independence, as well as questions of political legitimacy that underpin state authority, still stand. The state is still bound by the traditional state-citizen contract wherein it is the protector of certain rights/claim-making by citizens and is the upholder of laws. For instance, as discussed in Chapter 4, one of the reasons that the

informal settlement of *Ambedkar Vasahat* could not be demolished for either rehabilitation or redevelopment was the political opposition from local corporators, for whom the dwellers of that settlement form a core constituency, and to whom they are obliged to cater to in exchange for patronage. Older formations of state-citizen political interactions persist.

In Chapter 7, I delved into the contradictions and contestations between the two states even further. I did so by probing the future of the smart city that is envisioned from the past (Past-Future). The entity of the SPV was created and tasked with the implementation of smart city projects by virtue of its speed of operations and decision-making, and its presumed efficiency owing to the involvement of consultants. The SPV, emblematic of the smart state, occupies a future temporal space. However, the drive to create this body and fast-track the creation of smart cities was motivated by the desire to overcome historic underdevelopment and accelerate towards an envisioned developed state along a linear trajectory. In this way, the smart state holds some continuities with the postcolonial developmental state of the past. Like the latter, it conceives of development linearly—an end point to be arrived at. Similarly, it also relies upon supposedly neutral and rational expertise, something that the erstwhile Planning Commission provided to the postcolonial developmental state in India. Thus, for the national state that set up the architecture for the SCM and set the objective of creating 100 smart cities, the imagined future of the smart city is entangled with the temporal state of the past.

Despite this, the positioning of the SPV as being more advanced and more capable as opposed to the local municipal corporation created further contestation within the state in Pune, fragmenting urban governance even more. This contestation, as I showed in this chapter, occurs along temporal lines: the SPV or the smart state exists for the time enclaves that the SCM creates, and the PMC, or the older state, exists for the governance

of the rest of Pune. Through the SCM, the political contestation within the state acquires a visibly temporal dimension, with the temporal distancing between the old city and the smart city mapping on to the state in the form of temporal distance between the older state and the smart state. Thus, extending Ayona Datta's (2024) notion of 'distant time', I argue that it is at play not just between the state and citizens, but within the state as well. In this way, I bring scholarship that studies how the smart city is co-constituted temporally and geographically into the workings of the state-in-practice, by situating the state in not just geographic space, but co-constituted temporal space.

In Pune, as I demonstrated in Chapter 7, the local state actively contested and even subverted this exercise of temporal power. The PMC, which is the constitutional authority tasked with the governance of the city, used its legal power, especially its control over land, to stall the execution of multiple smart city projects. It also actively demanded that the elected corporators be included in the Board of Directors of the SPV, which was not a part of its initial design. Ultimately, this contestation led to a territorial division of the same city, with the PMC refusing to manage the smart city projects in Aundh, Baner, and Balewadi, and the SPV only managing the areas where it was clearly handed over the land for development by the PMC. For instance, the pilot project of the SCM in Aundh was a massive and impressive development of a smart road, complete with optical fibre cables laid underneath it, environmental sensors, and pavements created keeping the accessibility needs of persons with disabilities in mind. However, the roads that run parallel to this smart road, within the same locality, provided stark contrast—they lacked proper pavements, let alone any of the abovementioned features. When grounded in space, the smart city in Pune exists like patchwork across the city's landscape. Importantly, spaces that fall out of this contestation between the SPV and the PMC, fall outside the realm of claim-making on the state as well, either in the form of a service that the SPV is providing

for citizens' consumption, or in the form of provisioning of certain public goods like infrastructure that the PMC is constitutionally mandated to provide. Who governs them? Which state do the citizens approach?

8.1.1 TWO STATES: THE STORY OF DISSONANCE

What emerges through this lens of the SCM and the smart city, as detailed in this thesis and summarised in the previous sub-section, is that there is an ongoing transformation within the Indian state that cannot be simply explained away through a pluralisation of governance, or the networking of the state, or by a neoliberal disposition. There is, in fact, a deeper, ongoing, ontological shift in the nature of the state, creating two states with two very different self-concepts—a split state. I now provide a deeper discussion of this split, fully answering the third question laid out at the outset of this thesis, namely, what does grounding the smart city in temporal space tell us about the state-in-practice in India in the contemporary moment?

To digress briefly, in 1886, Scottish writer R. L. Stevenson published a novella called *Strange Case of Dr Jekyll and Mr Hyde*, which became one of the author's most critically acclaimed and famous works. The story, narrated by the character of one Gabriel Utterson, who is a friend and client of Dr Jekyll, follows a mystery: a Mr Edward Hyde, of a brute and violent nature is wreaking havoc in the city of London by night, indulging in criminal behaviour. He seems to have connections with Dr Henry Jekyll, a known upstanding citizen, worryingly at odds with what one might expect. What is revealed at the end is that Dr Jekyll and Mr Hyde are at once the same, yet distinct parts or personas of the same individual. Dr Jekyll invented a potion that allowed him to transform into a totally different person: Mr Hyde. Through inhabiting this other persona, Dr Jekyll

accessed the part of himself that he repressed for the sake of propriety and expectations of civilised behaviour.

I bring this story up not for the rich discussions on morality and "good' and "evil" that this novella fostered, nor for Jungian ideas of conflict between the "shadow self" and the "conscious self" that a psychological analysis of this story would venture into. I bring this story up for the archetype it represents—two selves in one, two very different natures and forms, in conflict with each other, but emerging from a single form. The contestation within the state that this thesis explores throughout, between the smart state and the old state, exhibits this very dynamic. My concern is not with identifying which state is the morally upstanding Dr Jekyll and which is the depraved Mr Hyde, but to showcase that there is indeed a split in the state, holding similarities with the split within the central character on which the novella is centred.

My formulation of a 'split state' is a significant departure from previous scholarship that has described the Indian state as being Janus-faced, internally differentiated, pluralised, networked, and operating in shadows (Bear, 2013; Chandhoke, 2003; Harris-White, 2003; Jayal, 1999; Mathur, 2014; Sinha, 2019). Each of these analytical conceptualisations is premised upon a state that operates on a model of statehood wherein it is the legitimate political authority that governs and administers a delineated territory. As this authority, it creates laws, interprets them, and enforces them. It manages, mediates, and participates in the political competition over scarce resources, often responsible for the provisioning of certain public goods in society. It is distinct from, but exists in relation to, capital and society, and the specific nature of these relationships depends upon the framework of analysis. There is indeed a large corpus of scholarship that theorises and analyses the relationship between state and capital, and scholars from

across the (inter)disciplines of political science, economics, development studies, critical studies, to name a few, have attempted to do so.

In Chapter 2, where I discussed literature on the state-in-practice, I mentioned the literature on the relationship between state and capital, from scholarship in political economy. Significant scholarship studying the Indian state since its independence, from various perspectives, has repeatedly identified a dualism in its workings—the 'Janus face'—one face pursuing economic growth, in tandem with the interests of capital, and the other pursuing social justice. This latter face is bound by the state-citizen contract which requires it to pursue development for all and fulfil its welfare obligations. This state still exists. This is the older state, evidenced through the workings of the Pune Municipal Corporation in my fieldwork. This state is visibly politically entrenched and engages in patronage politics. The PMC is the state body to which corporators are elected by the citizens of the city, and as representatives of the people they are law-bound to meet certain obligations.

For instance, the PMC actively resisted the smart water meter project that aimed to regulate water supply through the installation of smart water meters across the city, thereby also pushing towards legalising the supply entirely, as it threatened the interests of the elected corporators' political constituents. Many residents of informal settlements across Indian cities access water through pipelines outside the legal routes, often because these settlements do not have sufficient access to piped water directly from the state itself (Anand, 2017; Birkinshaw, 2019). Moreover, installing water meters would mean that these residents, already living on precariously low incomes, would potentially have to pay for water consumption. As mentioned in Chapter 4, residents of these settlements form a key constituency for politicians, with whom they collectively barter and negotiate to access resources from the state. Driven by the constraints and compulsions of electoral

democratic politics, elected representatives must engage with this group, and potentially also cater to their demands. This being said, the pursuit of welfare occurs alongside the pursuit of capitalist development.

The politician-builder nexus in Pune is well-established and many contractors and real estate developers work hand-in-glove with functionaries of the PMC. The mechanism of the TDRs (discussed in Chapter 7) is one that the corporation uses extensively to 'develop' the city. The PMC does not only issue TDRs to individuals when acquiring their land but also uses its principle of FSI credits when undertaking construction of public infrastructure in the city under public-private partnership mode. For example, if the local corporation needs a pipeline built in a particular area, it may award FSI credits to the company contracted to lay down the pipeline such that it may sell them to real estate developers to undertake construction in the designated 'Receiving Zones' of the city. In this way, the corporation does not have to pay full charges to the company undertaking the infrastructure construction at its behest. This mechanism, like the TDR, is aimed at overcoming financial shortages that the local corporation faces while cutting down its expenditures for the sake of fiscal responsibility (Interview with Pramod, Academic, Pune, 19/10/22). This is favourable for the contracting company as well for it would generate more business—the additional FSI the company is granted is sold to real estate developers who can use it to undertake more construction on their plot of land. Notably, several politicians are also real estate developers themselves and stand to indirectly benefit from this arrangement.

These examples illustrate the two contradictory pursuits that the state engages in, already theorised extensively. This is a state that has porous boundaries with capital, facilitated through the pluralisation of governance and the internal differentiation of the state (Sinha, 2019). This is a state that can be extractive as well, but in familiar ways—

rent-seeking and facilitating dispossession through neoliberal practices of privatisation and greater financialisation of economies (Harvey, 2003; Levien, 2018; Shatkin, 2022; Sud, 2009). The smart state, I suggest, operates differently from this one.

The smart state avowedly presents itself as apolitical and technocratic. It uses temporal distancing to situate itself in a digitally-mediated future, *ahead and above* the disorderliness of politics that informs present-day lived realities. Its presents itself as being concerned with efficiency, data (and the expertise it represents), and leapfrogging into future developmental states. In distancing itself from the political entrenchment of the state, both with capital and with society, the smart state showcases a very different self-perception from older state formations where the state represents the coalescing of political power, and its institutionalisation in society.

Most importantly, the smart state is not just "pro-business" or "market-friendly" as scholarship has extensively debated (Bardhan, 1985; Chatterjee, 2017; Kohli, 2006a; 2006b; 2009; Mazumdar, 2008; Rodrik & Subramanian, 2004; Sud, 2009; 2014) but desires to operate like an enterprise itself. The smart state, I argue, endeavours to bring business to the state, not just in a corporate look, but in substance—in its operation, processes, and ideology. It is crucial for me to underscore here that I am describing an ongoing transformation in the state that the SCM and the lens of the smart city allow us to witness—the smart state, as I observed, is by no means a consolidated entity. It emerges from a split in the state's own self-concept and is witnessed in instances. The use of an SPV that is effectively a company, for urban development and governance, reflects that.

The bureaucrats in the smart state are CEOs and, in the case of the SCM, in charge of smart city corporations which have been likened to start-ups. Curiously enough, the Mission Director of the SCM stated in his speech at a conference I attended, the

"government is the oldest enterprise in the world" (R. Khosla, personal communication, 18/1/23). The choice of words here is rather intriguing and also revealing. While forming and running governments have been multi-faceted undertakings, the suggestion of their being an "enterprise" has distinct connotations of risk-taking associated with complex businesses. This parallels other descriptions of SCM projects given by entrepreneurial bureaucrats as being "bold", "courageous", and "forward-looking", and the programme itself as being "path-breaking" (ET Government, 2019; Pandey, 2022; R. Khosla, personal communication, 18/1/23). The underlying idea here is that the government invests resources and takes risks on behalf of society to industriously generate new, innovative ideas, products, and services.

Here, I would like to mention that this vision of an enterprising state that the SCM exhibits is distinct from the "entrepreneurial state" that Mariana Mazzucato theorises. Through her work, Mazzucato (2013) challenges dominant myths concerning the public sector and the private sector and illuminates how several notable innovations in society have taken place at the behest of the state. Block and Keller (2011) echo the same by demonstrating the foundational role of the US government in fostering technological innovation. An example offered is that of ARPANET, a US Department of Defense project initiated in 1969, which pioneered the technology that became the basis for the development of the internet in subsequent decades. Mazzucato (2013) argues that the state is not merely a facilitator and regulator of markets, but an active risk-taker and innovator with the capacity to shape markets productively. However, there is a certain public-orientedness that characterises the state in her work as well. The idea is that the state collectivises risk-taking on behalf of society, minimising the burden of risk and associated fallouts, that would otherwise fall on individual enterprises. Apart from critiques that highlight that the cases that Mazzucato utilises to build her argument are a limited

selection and mostly from the US (Block, 2013; Schou, 2024), her conceptualisation of the state also rests upon older, liberal state conceptualisations and the traditional state-citizen social contract.

In the context of India, the state has been enterprising and previously sponsored innovation in certain strategic sectors which have larger public interests involved. For example, the national space agency, the Indian Space Research Organisation (ISRO), designed and developed the Polar Space Launch Vehicle (PSLV), first launched in 1993, and used it to launch small-to-medium sized satellites and space probes. The PSLV provides 'rideshare' services that allow other countries to launch small satellites into space through it (and through other launch vehicles that ISRO has developed), along with a primary payload[37] on the launch vehicle that is from India. Other countries can avail these services at much cheaper rates, almost 70-80% cheaper than what it may cost elsewhere in the world (by some estimates), making the PSLV a globally competitive space vehicle. In 2017, the PSLV launched 101 foreign nano-satellites on a single launch (Permanent Mission of India to the UN, 2017; Quinatana, 2017; Subramanian, 2003). This would be an instance where a state-sponsored agency took on significant risk and capital investment that ultimately yielded a successful and commercial innovation. But this is still distinct from the model of state action envisioned and operationalised in the SCM. While the *state has owned, managed, and sponsored enterprises*, and existed in a close nexus with capital, it is another thing to say that the *state is the enterprise*.

This reflects the ontological shift in the nature of the state that I am alluding to—for the smart-state's self-perception of its primary role, the functions it is supposed to

[37] For clarification, the primary payload refers to the main cargo that a rocket carries. Typically, it is a satellite or a scientific instrument, depending on the purpose for which the rocket is being launched into space. The primary payload determines what kind of rocket will be used, the trajectory it will take, the costs involved, and so on. The secondary payload refers to other cargo the rocket carries, usually not related to the primary purpose of the rocket launch.

discharge, how and for whom, are profoundly different from what we know of older state conceptualisations. For instance, the smart state aims to generate a "demand" for its services among the citizenry to scale up operations. The whole model of the SCM is premised upon this idea that once the lighthouses have been set up successfully, other urban areas would also want to become like smart cities and would demand similar projects in their areas. This is reiterated by the example of cycling lanes (mentioned in Chapter 6) that Varun, the PwC consultant, provided me with wherein he mentioned that children in other (non-smart) areas could demand that cycling lanes be set up in their vicinity, once they saw them in lighthouse areas, and "fight to have it" (Interview with Varun, consultant, PwC, 24/06/23).

The proliferation of consulting firms in governance and state functioning is a key element of the smart state. Elsewhere, literature argues that consultants are agents of financialisation and neoliberalisation (Boussebaa & Faulconbridge, 2019; Mazzucato & Collington, 2023; Möller, 2021). However, what happens when they themselves become indistinguishable from the state? Consulting firms play a key role, not just in propagating market logics within the state, but in transforming the state itself to cohere with these logics. Economic logics of demand, supply, and future profitability guide the smart state, not political logics of power and legitimacy.

This brings us to the second key element of the smart state, mentioned earlier in this chapter—it is exclusive, not inclusive. This exclusivity arises from three dimensions. Firstly, it is premised upon its positioning in a future temporal space, representing an advancement over previous state institutions. Secondly, and interrelatedly, this future positioning is justified through the expertise it possesses in the form of technocrats, and most importantly, consultants. This expertise supposedly allows it to have a more evolved thought process, and foresight, such that it may guide and "handhold" older state

formations. Thirdly, it is also exclusive in its operation—it operates in certain 'time enclaves', described earlier in this thesis, and is intended to cater to a 'smart' citizenry. This envisioned demographic is the middle-class-consumerist citizen, likely belonging to a professionalised service. The selection of Aundh, Baner, and Balewadi as the smart city areas in Pune was also done with the expectation that the IT industry located in the geographically proximate area of Hinjewadi would grow in the coming years, and these areas would house the employees of this expanding IT industry. This is the targeted audience, the intended market for the smart state's services. The 'test labs' of smart cities are intended to experiment with interventions to gauge which succeed and which do not.

The SCM was projected as a programme that promotes inclusive urban development, but any smart intervention that has been promoted, as the case of Pune illustrates, has not been designed to bring those at the margins of urban life into its mainstream. In fact, the programme—both in its vision and implementation—categorically demonstrates the shift in the notion of *aam aadmi* or the 'ordinary citizen' that Sanjay Srivastava (2020) argues for. To quote him,

> Historically, the Nehruvian state—with development as its *raison d'être*—identified the poor farmer, the slum-dweller, and members of socially and economically disadvantaged minority groups as "the people." However, within a post-liberalization discourse there is a new constitutional subject that is imagined as the ordinary man (sic), namely, the middle- and upper middle-class urban resident (Srivastava, 2020, p. 746).

In the changing state-citizen social contract, this is the category of citizen the smart state wants to serve. However, in Pune, curiously enough, this category of citizen, as my previous chapters illustrate, was also disillusioned with the smart city and its promises of the future. Even the middle-class citizens of ABB areas, the supposed 'smart' citizens, felt that the projects failed to take their needs into consideration and were dissociated from their everyday realities and the local context. My participants repeatedly

highlighted that after an initial few rounds of consultation, the Pune SPV stopped engaging with the citizenry altogether, both across the city, and in the ABB areas. In a similar vein, Michelle R. Andrade (2019), examining the Chandigarh smart city programme in north India, found that the SCM projects hindered rather than enabled grassroots participation. She found that citizens' consultations for the projects exhibited 'online tokenism' and were devoid of any substantive engagement with any citizens' groups, quite akin to what happened in Pune (discussed in Chapter 4). Hence, she argues,

> It becomes evident that only SPV members are intended to embody 'smart people'. This differentiation becomes even clearer when not 'smart' but simply 'people' are put into administrative categories as Resident Welfare, Taxpayers, Senior Citizens, and Slum Dwellers Associations, yet still their participation is not guaranteed; instead, only loose public 'consultations' are offered (Andrade, 2019, p. 246).

These categories of 'people' she refers to in the above quote are supposed to be the groups who find representation in the Smart City Advisory Forum, as members of the citizenry advising the SPV on the formulation of smart city projects to ensure that they are suited to local needs and promote collaborative decision-making. But, in Pune, while this body exists, it did not, and does not hold regular meetings with the SPV. Further, as Chapter 6 showed, the citizens' representatives on this forum were two prominent Pune-based real estate developers. Thus, even if there is a certain category of the citizenry that is envisioned as being 'smart', it is evident that for the smart state, the engagement with this category is quite different even normatively, as manifest in the programme design. Different norms of accountability and obligation apply to this dynamic: citizens' participation is optional and of limited relevance. The expertise of the smart state is presumed to be sufficient to craft the best policies. What is the precise nature of the relationship between the smart state and the citizenry? What purpose does this category of the 'smart citizen' serve, beyond being a consumer of state services? Do 'smart citizens' not inhabit the same future temporal space as the experts of the smart state do? While my

thesis at present is limited in scope and cannot adequately answer these questions, they are worthy avenues for further research.

Furthermore, some other findings of this thesis, such as the contestation between the SPV and municipal corporation, the elitist vision of the smart city, and the SCM's propensity to further speculative real estate development seem to echo in the workings of other smart cities across India. They have been referenced in the empirical chapters in relation to the presented data. It is beyond the scope of this thesis to comment on whether the exact temporal dynamics observed in Pune are exceptional or emblematic of other cities across India, as the research design does not permit that kind of generalisation premised upon representativeness. However, the similarity of findings does point towards the potential of a larger-scale study that may probe the futurism of smart cities in India at a national scale. If indeed, further research reveals that the temporal dynamics within the state as evidenced through the Pune SCM are emblematic of the experiences of other smart cities as well, they would (a) strengthen the analysis of this thesis that there is temporal power at play within the state in the form of 'distant time' and (b) open the window to analysing the temporal spatialising of the state through other government programmes beyond the SCM. In the process, such further research would shed more light on the role of temporality in mediating both statecraft and politics.

What this thesis does highlight, however, is that there is a significant ongoing transformation in the state—its own self-concept is split on what precisely is the nature and purpose of the state, and its relation to capital and society. This insight on the smart state, as elaborated in the preceding sections of this chapter, has the potential to be explored further beyond the SCM, for it echoes in other national government programmes in India as well. For example, there is an ongoing government programme called *Ayushman Bharat* wherein instead of directly providing public heath goods, the

government seeks to provide a health insurance to citizens such that they can purchase health services, illustrative of changed state-citizen contract and the exclusivity of the smart state being alluded to earlier.

As another example, the National Payment Corporation of India (NPCI) is a curious entity which also appears to exhibit the state-as-enterprise logic. It is technically a non-profit company controlled by a few large banks (and not a sovereign state entity) which controls the protocols through which money moves digitally in India, such as through the Unified Payments Interface, Google Pay, and PhonePe. Instead of money moving digitally through a few private card networks like Visa and Mastercard as is the case in many other countries globally, India has a national architecture for facilitating digital payments. Interestingly, this architecture has been set up by the NPCI which is technically a private company but has been enabled, established, and is monitored by the statutory monetary authority of the country—the Reserve Bank of India. Thus, some of the analysis presented on the smart state, as evidenced through the SCM, particularly on the temporal dimension of the smart state, has the potential to be explored and refined, through a study of some of the other projects and programmes in India. All elements of the emergent smart state presented in this thesis thus far—the use of the SPV, the appointment of CEOs, the lighthouse vision, the entrenchment of consultants—stem from and are directed by the state itself. The old state is what enables the creation of the smart state—the curious question is: why?

The proclivity for the state becoming more business-like can reasonably be traced to the influence of New Public Management approach, which became pervasive in the 1990s. According to this school of thought in public administration, the state needed to be 'reformed', to be made more 'business-like' to run more effectively. As also discussed in the review of literature in Chapter 2, two important tenets of this school of thought were

marketisation and corporate management. The underlying conviction behind NPM was that the "public sector must emulate private sector management" (Rhodes, 2017, p. 125). The Bretton Woods institutions backed and propagated this school of thought, especially in developing countries, as a condition for their loans, technical assistance, and as part of their 'Good Governance' agenda (Myers, 2002). Finally, one of NPM's prescriptions to reform governance was to create "alternative service delivery mechanisms" and semi-autonomous agencies that provided these services— agencies that concentrate on providing these specific services without the "distractions of evaluating alternative policies" (Manning, 2001). The logic provided in the SCM policy documents and in my interviews in Pune on the rationale for the creation of the SPV mirrors this prescription (MoUD, 2015; Interviews with Kartik, Chief Knowledge Officer, PSCDCL, 7/9/22; Ajmal, Company Secretary, PSCDCL, 7/9/22; Rajesh, Chief Engineer, PSCDCL, 14/9/22).

The smart state, I suggest, emerges from the entrenchment of this school of thought, which planted the seeds for the corporatisation of the state. However, the state has gone beyond it, from merely operating in a more business-like fashion to facilitate the expansion of capital, to operating in capital's image itself. It does not simply have a corporate form but also shares its objectives and ideas. The smart state seeks to be driven not by public-political logics, but private-economic ones, exhibited through its exclusive workings described previously. It seeks to co-profit from the businesses it is facilitating, not just sharing porous boundaries with them, but fusing with them, as the entrenchment of management consulting firms in the state exhibits. This state perhaps exercises forms of extraction that are more obscure than the older state. As mentioned through my empirical chapters, my respondents repeatedly made allegations of corruption that has taken place within the SCM, both in familiar ways, with politicians wanting their "cuts", but also in

the form of commissions given to consulting firms, referred to as "*alag style ka* TOD (*thekedar*-oriented development)" [a different form of contractor-oriented development] or the "corporatisation of corruption" (Interviews with Ravi, journalist, Pune, 12/12/22 and Naresh, local politician and activist, Pune, 24/11/22, respectively).

While the NPM facilitated the creation of the smart state, it is unclear what exact processes have led to its consolidation. Such an investigation is, unfortunately, beyond the scope of this thesis. However, I do wish to clarify that I am not revisiting the argument that claims that the state is being hollowed out with macroprocesses of globalisation and neoliberalisation (and their manifestation in public administration as NPM), or that the state is in "retreat" (Gilpin, 2000; Nayyar, 2007; Patnaik, 2003; Strange, 1996). Older state formations have certainly been reconfigured by these processes and literature extensively documents that (Brenner, 2004; Chandra, 2015; Chatterjee, 2017; Jessop, 2002; Mathur, 2014; Nayyar, 2009; Sinha, 2019; Sud, 2009). However, even in such theorisations and analyses of state transformations, the sanctity of the underlying political logic that informs the creation of the state remains intact. As mentioned previously, this state is still visible in my research and evidenced through the workings of the PMC in Pune. However, the smart state, as observed through the SPV, has minimal concerns for political logics—questions of authority, legitimacy, and accountability—that necessitate and justify the existence of the state. In fact, the SPV was created precisely to bypass these logics, and while it was quite unsuccessful in its operation in Pune, this is not the case in other smart cities (as discussed in Chapter 5).

Moreover, the SPV is also not a model of governance that is in decline. As per an advisory issued by the Government of India in 2025, SPVs ought not to be dismantled even after smart city projects are completed. They are to be strengthened and repurposed, and the Ministry of Housing and Urban Affairs has provided a tentative roadmap for their

future role. This includes providing “consulting support” and “technology support” to ULBs and State governments and also, curiously, to assist in project implementation for government schemes, for a “project implementation charge” that would be levied on the ULB or State government that contracts the SPV (PIB Delhi, 2025). If implemented, this would amount to the state paying the state to discharge state functions. To quote from the story I mentioned earlier in this sub-section, “The powers of Hyde seemed to have grown with the sickliness of Jekyll” (Stevenson, 2019, p. 70).

To recapitulate, I have summarised the findings from the preceding empirical chapters in this section and have also discussed some of their implications. Crucially, I have discussed what they tell us about the state in India in the contemporary moment, answering the third question laid out at the outset of this thesis. The lens of the smart city and its associated temporality provide a unique vantage point from which to observe these transformations and analyse them. The analytical conclusion that emerges by situating the state in temporal space and not just geographic space is that there is an ongoing split in the state’s own self-concept, witnessed through what I have called the smart state and the old state in this thesis, and in this chapter. The deployment of a networked notion of time, that sees past, present, and future temporal states as being intertwined and not necessarily linear (progressing unidirectionally from one to another), allows us to grasp the possibility of two ‘states’ existing simultaneously—perhaps if both Dr Jekyll and Mr Hyde could be out and about on the streets of London at the same time, instead of appearing in place of one another.

8.2 RESEARCH CONTRIBUTIONS AND FURTHER AVENUES

Through this thesis, and through this chapter more specifically, I have shown how there is a significant qualitative transformation underway in the Indian state, leading to a split state. The futurism of the smart city along with the contestation between the SPV and

the PMC, discussed throughout the preceding chapters, provide us with a window to observe and analyse several things of note.

One, the futurism of the smart city spatialises time in a way that creates what I call time enclaves, which perpetually operate in a future temporal space despite being geographically proximate to the rest of the city. This enables speculative profit-making within the time enclave through the anticipation of the future and the possibilities associated with it. In Pune, this has translated to rampant real estate development within smart city areas and crucially, this futurism widens the temporal distance between the smart city and the rest of the city, contributing to widening urban inequalities. As evidenced in Pune, the older parts of the city are considered too old for smartness.

The envisioned spatio-temporal bubble of the smart city is designed to concentrate wealth within certain pockets of the city. This finding highlights that any holistic programme of urban development would require an understanding of the city's temporal landscape—not just the geographic one. This would entail moving past linear notions of time inherent in linearly imagined trajectories of development and understanding that physical spaces can exist in inter-twined, dynamic temporal states. There is no singular, unidirectional evolution towards a developed space, only a complex process of change weaved through histories of the past and imaginations of the future.

Two, this temporal distance between the smart city and the older city maps on to the governance apparatus associated with these areas as well. The SPV, with its expertise, was clearly created to design and implement smart city projects, as opposed to the local municipal corporation which is considered backward and inept. Thus, the political contestation between the SPV and the PMC is along temporal lines. Using the lens of the smart city and its associated futurism allows us to study the workings of the state in a way

that is grounded not just in geographic space but also in the co-constitutive temporal space.

Thus, through this thesis, I actively put into conversation, and form a bridge between two bodies of scholarship, that of the state-in-practice and temporality in urban geography. I show how the state also operates across cross-cutting spatio-temporalities by identifying the three kinds of futures of the smart city: its Future-Future, Present-Future, and Past-Future. This is, to my knowledge, is the first such comprehensive exploration and analysis of the futurism of the smart city. Moreover, this holds possibilities for further research into the workings of the state by situating it in temporal space.

This brings us to the third key finding and contribution of this thesis. The temporal contestation within the state provides a window to observe a deeper, ongoing transformation in the nature of the state itself. In a departure from existing conceptualisations of the workings of the Indian state, I argue that there is a split in the Indian state's own self-concept—on what its nature, purpose, and function is, with respect to both capital and society. This split is evidenced through the vision and operation of the smart state (the SPV) and the older state (the PMC) and has been discussed throughout this chapter. The smart state seeks to behave like capital itself and become a co-participant in enterprise. Sanjay Srivastava (2020), in his work on the new 'ordinary citizen' argues that capital shapes and produces its own citizens. To quote,

> In the example I discuss below, capital, in effect, actively produces its own citizens such that the notion of separate and autonomous spheres of the state, citizens, and capital becomes untenable. What we are left with, in fact, is the simulacrum of autonomous spheres (Srivastava, 2020, p. 747).

In a similar vein, I suggest that capital is producing its own state through this split in the state's self-perception. Grounding the state in temporal space makes this split visible. The smart state evidently seeks to function as an enterprise itself, working in tandem with

management consulting firms, and aiming to provide its services to 'smart' consumer-citizens. The research presented in this thesis points towards this internal split, and the emergence of a smart state in capital's image. This is a unique insight that this thesis offers, and it opens further avenues for research. For instance, while this thesis points towards a split state, there is more focussed research required into the processes by which this is happening. Moreover, the dynamic relationship between the old state and the smart state needs to be explored further, along with the implications it presents for urban development and governance beyond just the Smart Cities Mission.

What is evident through the data presented in this thesis is that while older state formations have enabled the smart state to come into existence at certain junctures, they have also had antagonistic relationships with it and been a source of resistance to it, as in the case of the Pune SCM. A deeper investigation into this would be required to bring nuance and clarity to this dynamic. Nevertheless, there is an evident split, and this holds profound, wider implications for the understanding of state-society-capital relations which inform a large corpus of prevailing social-scientific scholarship. As Srivastava (2020) notes in the context of capital-society relations, the new notion of the 'ordinary citizen' challenges the presumed separation of these spheres.

I suggest the findings of this thesis, as discussed in this chapter, challenge the presumed separation of the spheres of state and capital, for what we see in the smart state is a state that identifies primarily with private-economic logics, not public-political ones typically associated with the older state. This suggests not just a proximity to or an alliance with capital, but a fusion with it. This state also seeks to cater to the new citizenry that is being produced by capital, as Srivastava notes—an apolitical, consumerist middle-class. As a consequence, it is not bound by traditional ideas of the state-citizen social contract and the political functions the state is supposed to discharge as a part of that. As

mentioned earlier, this is by no means a solidified and static shift, but an ongoing and dynamic transformation that is subject to further mutations and change. But beyond theoretical concerns of the relationship between state, capital, and society, the findings of this thesis echo wider concerns of democratic accountability, questions of inclusivity when it comes to development planning and ongoing urbanisation, and what it means to be a citizen at a time when statehood itself is transforming so radically.

REFERENCES

Abrams, P. (1988). Notes on Difficulty of Studying the State, *Journal of Historical Sociology, 1*(1), 58-89.

Adam, B. (2008). Future matters: Futures known, created, and minded. *Twenty-First Century Society, 3*(2), 111-116. https://doi.org/10.1080/17450140802095102

Adam, B. & Groves, C. (2007). *Future Matters: Action, Knowledge, Ethics*. Brill.

Addie, J-P. D., Glass, M. R. & Nelles, J. (2024). Time for a Global Infrastructure Turn. In Addie et. al. (Eds) *Temporality and the Making of Global Urban Worlds*. Bristol University Press.

Agamben, G. (1998). *Homo Sacer: Sovereign power and bare life* (D. Heller-Roazen, Trans.). Stanford University Press.

Agamben, G. (2005). *State of Exception* (K. Attell Trans.). University of Chicago Press.

Akhtar, R. (2025). *Neoliberalism and Hindutva in the Making of an Indian Smart City*. Cambridge University Press.

Anand, N. (2017). *Hydraulic City: Water and the Infrastructures of Citizenship in Mumbai*. Duke University Press.

Andrade, M. R. (2019). Digital India's Smart Transform-Nation: Enabling or Discouraging a '*Chatur* Citizenry'? *Asiascape: Digital Asia, 6*, 237-276.

Aurora, B. V. (2015, March 30). Tender cancellation issue hits PM Modi's Smart City project. *The Economic Times*. https://economictimes.indiatimes.com/news/economy/infrastructure/tender-cancellation-issue-hits-pm-modis-smart-city-project/articleshow/46602293.cms?from=mdr

Balakrishnan, S. (2019). Recombinant Urbanization: Agrarian–urban Landed Property and Uneven Development in India. *International Journal of Urban and Regional Research, 43*(4), 617-632. DOI:10.1111/1468-2427.12790

Balakrishnan, S. & Pani, N. (2021). Real estate politicians in India. *Urban Studies, 58*(10), 2079–2094. https://doi.org/10.1177/0042098020937917

Banerjee, T. (2009). US planning expeditions to postcolonial India: From ideology to innovation in technical assistance. *Journal of the American Planning Association, 75*(2), 193–208.

Banerjee-Guha, S. (2009). Neoliberalising the 'Urban': New Geographies of Power and Injustice in Indian Cities. *Economic and Political Weekly, 44*(22), 95-107.

Baraka, C. (2021, June 1). *Kenya's first smart city promised everything. 13 years on, it's still a construction site*. Rest of World. https://restofworld.org/2021/the-failed-promise-of-kenyas-smart-city/

Bardhan, P. K. (1985). *The Political Economy of Development in India*. Wiley–Blackwell.

Bari, P. (2022a, April 14). Peth localities in Pune face water crisis, blame on 24x7 scheme. *Hindustan Times*. https://www.hindustantimes.com/cities/pune-news/peth-localities-in-pune-face-water-crisis-blame-on-24x7-scheme-101649958944638.html

Bari, P. (2022b, November 6). Residents of Aundh, Baner, Balewadi and Pashan join hands ahead of civic polls. *Hindustan Times*. https://www.hindustantimes.com/cities/pune-news/residents-of-aundh-baner-balewadi-and-pashan-join-hands-ahead-of-civic-polls-101667758775843.html

Baru, S. (2000). Economic Policy and the Development of Capitalism in India: the role of regional capitalists and political parties. In F. Frankel et al. (Eds.), *Transforming India: Social and Political Dynamics of Democracy*. Oxford University Press.

Baru, S. (2021). *India's Power Elite*. Penguin Books.

Basu, I. (2019). Elite discourse coalitions and the governance of 'smart spaces': Politics, power and privilege in India's Smart Cities Mission. *Political Geography, 68*, 77-85.

Baviskar, A. and Ray, R. (2011). Introduction. In A. Baviskar & R. Ray (Eds.), *Elite and Everyman: The Cultural Politics of the Indian Middle Classes*. Routledge India.

BBC News. (2010, February 14). India restaurant bomb blast kills nine in Pune. http://news.bbc.co.uk/1/hi/world/south_asia/8514232.stm

Bear, L. (2013). Making a river of gold: speculative state promises, informality, and neoliberal governance on the Hooghly. In Simone Abram and Gisa Weszkalnys (Eds.), *Elusive Promises: Planning in Contemporary World* (pp. 155-178). Berghahn Books.

Bhan, G. (2020). Informality, Housing, and Work: The View from Indian Cities. In M. Chen & F. Carré (Eds.) *The Informal Economy Revisited: Examining the Past, Envsioning the Future* (pp 136-140).

Bharatiya Janata Party (BJP). (2014). *Ek Bharat Shreshtha Bharat: Sabka Saath, Sabka Vikas* [Election Manifesto 2014]. https://www.bjp.org/images/pdf_2014/full_manifesto_english_07.04.2014.pdf

Blaikie, N. & Priest, J. (2019). Logics for Answering Research Questions. In *Designing Social Research: Third Edition* (pp. 89-117). Polity Press.

Block, F. & Keller, M. R. (2011). *State of Innovation (First Edition)*. Routledge.

Birkinshaw, M. (2018). 'Water mafia' politics and unruly informality in Delhi's unauthorised colonies. In L. Roberts & K. Phillips (Eds.) *Water, Creativity, and*

Meaning: Multi-disciplinary understandings of human-water relationships (pp 189-203). Routledge.

Birkinshaw, M. & Srivastava, S. (2023, January 17). *Government as (paid) service: Technology, private expertise, and statehood in Indian cities*. Analog Pasts and Digital Futures: Reflections on India's Smart Cities Mission, New Delhi.

Biswas, S. & Gusain, R. (2023, January 9). Joshimath: The trauma of living in India's sinking Himalayan town. *BBC News*. https://www.bbc.co.uk/news/world-asia-india-64201536

Block, F. (2013, July 8). You Didn't Build That: The Entrepreneurial State. *Institute for New Economic Thinking*. https://www.ineteconomics.org/perspectives/blog/you-didnt-build-that-the-entrepreneurial-state

Bogdanich, W., & Forsythe, M. (2022). *When McKinsey Comes to Town*. Penguin Random House.

Boucher, A. (2017) Power in Elite Interviewing: Lessons from Feminist Studies for Political Science, *Women's studies international forum, 62*, 99–106.

Boussebaa, M. & Faulconbridge, J. R. (2019). Professional service firms as agents of economic globalization: A political perspective. *Journal of Professions and Organization, 6*, 72-90. DOI: 10.1093/jpo/joy014

Brand, U. et al. (2021). From planetary to societal boundaries: an argument for collectively defined self-limitation. Sustainability: *Science, Practice and Policy, 17*(1). https://doi.org/10.1080/15487733.2021.1940754

Brenner, N. (2004). New State Spaces: Urban Governance and the Resacling of Statehood. Oxford University Press.

Brenner, N. (2019). *New Urban Spaces: Urban Theory and the Scale Question.* Oxford University Press.

Brenner, N. & Theodore, N. (2002). Cities and Geographies of "Actually Existing Neoliberalism", *Antipode*, 349-379.

Britannica, T. Editors of Encyclopaedia (2024, May 30). *Pune*. *Encyclopedia Britannica*. https://www.britannica.com/place/Pune

Burawoy, M. (1985). *The Politics of Production: Factory Regimes Under Capitalism and Socialism*. Verso.

Castells, M. (1989). *The Informational City: Information Technology, Economic Restructuring and the Urban-Regional Process*. Basil Blackwell.

Castells, M. (1996). *Rise of the network society*. Blackwell.

Castells, M. (2005). The Network Society: From Knowledge to Policy. In Castells, M. &

Gustavo, C. (Eds.) The Network Society: From Knowledge to Policy. Johns Hopkins Center for Transatlantic Relations.

Castree, N. (2006). From From neoliberalism to neoliberalisation: consolations, confusions, and necessary illusions. *Environment and Planning A, 38*, 1-6. DOI:10.1068/a38147

Cerf, V. (n.d.) A Brief History of the Internet and Related Networks. Internet Society. https://www.internetsociety.org/internet/history-internet/brief-history-internet-related-networks/

Cerny, P. (1997). Paradoxes of the Competition State: Dynamics of Political Globalization. *Government and Opposition, 32*(2), 251-274.

Chandhoke, N. (2003). Governance and the Pluralisation of the State: Implications for Democratic Citizenship. *Economic And Political Weekly*, *38*(28), 2957–2968.

Chandra, K. (2015). The New Indian state: The Relocation of Patronage in the Post-Liberalisation Economy. *Economic and Political Weekly*, *50*(41), 46–58.

Chattaraj, S. (2019). Informality and state 'jugaad': How urban governance works in India. *CPR Working Papers*. https://cprindia.org/workingpapers/informality-and-state-jugaad-how-urban-governance-works-in-india/

Chatterjee, E. (2017). Reinventing state capitalism in India: a view from the energy sector. *Contemporary South Asia*, *25*(1), 85–100. https://doi.org/10.1080/09584935.2017.1290583

Chatterjee, P. (1994). Development Planning and the Indian State. In P. Chatterjee (Ed.) *Empire and Nation: Selected Essays, 1985–2005*. Columbia University Press.

Chatterjee, P. (2004). *The Politics of the Governed*. Columbia University Press.

Chatterjee, S. (2024, July 3). Centre extends Smart Cities Mission deadline till March 2025. *Hindustan Times*. https://www.hindustantimes.com/india-news/centre-extends-smart-cities-mission-deadline-till-march-2025-101720024356584.html

Chhotray, V. (2011). *The Anti-Politics Machine in India: State, Decentralization and Participatory Watershed Development*. Anthem.

Chitlangia, R. (2023, May 2). Smart Cities Mission gets second extension until June 2024. Hindustan Times. https://www.hindustantimes.com/india-news/smart-cities-mission-extended-till-june-2024-for-completion-of-pending-work-projects-worth-rs-1-81-322-crore-sanctioned-101682995991441.html

Christensen, M. C., Todić, J. & McMahon, S. M. (2022). Bridging the Grey Gap: Conducting Grey Literature Reviews for Ethical Social Work Practice and Research. *Journal of the Society for Social Work and Research, 13*(3). DOI: 10.1086/717731.

Collett, C. (2024). The Hustle: How Struggling to Access Elites for Qualitative Interviews

Alters Research and the Researcher. *Qualitative Inquiry, 30(*7), 555-567.

Consultancy.in. (2019, July 19). *India's public sector increasingly turning to management consultants*. https://www.consultancy.in/news/2344/indias-public-sector-increasingly-turning-to-management-consultants

Conti, J. A. & O'Neil, M. (2007). Studying power: qualitative methods and the global elite. *Qualitative Research, 7*(1), 63-82.

Dastane, S. (1992). *Glimpses of Maharashtra.* Dastane Ramchandra and Co., Pune.

Datta, A. (2017). Introduction: Fast Cities. In A. Datta & A. Shaban (Eds.), *Mega-urbanization in the global south: Fast cities and new urban utopias of the postcolonial state* (Studies in Urbanism and the City). Routledge. https://www.routledge.com/Mega-Urbanization-in-the-Global-South-Fast-cities-and-new-urban-utopias/Datta-Shaban/p/book/9780415745512

Datta, A. (2019). Postcolonial urban futures: Imagining and governing India's smart urban age. *Environment and Planning D: Society and Space*, *37*(3), 393–410. https://doi.org/10.1177/0263775818800721

Datta, A. (2023). The digitalising state: Governing digitalisation-as-urbanisation in the global south. *Progress in Human Geography*, *47*(1), 141–159.

Datta, A. (2024). Distant time: The future of urbanisation from 'there' and 'then'. *Dialogues in Human Geography*, 1–21. DOI: 10.1177/20438206241253567

Dave, S. (2015, July 22). Consultancies benefiting from Modi government's push on projects like Digital India, Swachh Bharat. *The Economic Times*. https://economictimes.indiatimes.com/industry/services/consultancy-/-audit/consultancies-benefiting-from-modi-governments-push-on-projects-like-digital-india-swachh-bharat/articleshow/48168768.cms

Degen, M. & Rose, G. (2024). Conceptualising aesthetic power in the digitally mediated city. *Urban Studies, 6*(11), 2176-2192. https://doi.org/10.1177/00420980241232501

Deloitte Insights. (2018). *Forces of change: smart cities*. https://www2.deloitte.com/xe/en/insights/focus/smart-city/overview.html

Deloitte. (2019*). Sustainable and Smart Cities of the Future: Key initiatives under Smart Cities Mission, Government of India*. https://www2.deloitte.com/in/en/pages/public-sector/articles/smart-and-sustainable-cities-of-future.html

Deloitte and Conferederation of Indian Industries (CII). 2023. T*he Digital Dominance: Catalysing India's rise as a Global Digital Leader*. https://www2.deloitte.com/in/en/pages/public-sector/articles/the-digital-dominance-catalysing-indias-rise-as-a-global-digital-leader.html

Deshpande, R. (2013). Who does not want Pune to become like Singapore? Politics of development in an emerging metropolis. In I. Shirley et al. (Eds.), A*sian and Pacific Cities: Development Patterns* (138-150). Routledge.

Deshpande, S. (2006). Exclusive Inequalities: Merit, Caste and Discrimination in Indian Higher Education Today. *Economic and Political Weekly*, *41*(24), 2438–2444. http://www.jstor.org/stable/4418346

Deshpande, R. & Palshikar, S. (2016). Political Economy of a Dominant Caste. In R. Nagaraj & S. Motiram (Eds.), *Political Economy of Contemporary India* (1st ed., pp. 77–97). Cambridge University Press. https://doi.org/10.1017/9781316691373.005

Deutsch, K. W. (1963). *The Nerves of Government: Models of political communication and control*. Crowell-Collier.

Dolare, R. (2022a, December 1). Bombay High Court Takes Serious Note of Water Supply Scarcity in Pune, Issues Notice to Government. *Punekar News*. https://www.punekarnews.in/bombay-high-court-takes-serious-note-of-water-supply-scarcity-in-pune-issues-notice-to-government/

Dolare, R. (2022b, December 16). Pune: High Court Orders PMC, PCMC, And ZP To Provide Citizens with Sufficient Water Supply or Face Punitive Actions. *Punekar News*. https://www.punekarnews.in/pune-high-court-orders-pmc-pcmc-and-zp-to-provide-citizens-with-sufficient-water-supply-or-face-punitive-actions/

Dolowitz, D., Buckler, S. & Sweeney, F. (2008). *Researching Online*. Palgrave Macmillan.

Eichenmüller, C. et al. (2023, January 17). *The god's eye view of India's cities: Cybernetic world-making in command and control centres*. Analog Pasts and Digital Futures: Reflections on India's Smart Cities Mission, New Delhi.

Empson, L. Elite interviewing in professional organizations. *Journal of Professions and Organization*, *5*(1), 58-69. https://doi-org.ezproxy-prd.bodleian.ox.ac.uk/10.1093/jpo/jox010

Escobar, A. (2012). *Encountering Development: The Making and Unmaking of the Third World.* Princeton University Press.

Esteva, G. (2019). Development. In Sachs, W. (Ed.). *The Development Dictionary: A Guide to Knowledge as Power* (pp. 6-25). Zed Books. http://dx.doi.org/10.5040/9781350225442&gt

ET Government. (2019, September 18). *An Interview with Mission Director, Smart Cities & Joint Secretary, MOHUA, GOI* [Video]. YouTube. https://www.youtube.com/watch?v=0XxD92_W9SE

Express News Service. (2021, October 28). PMC to implement new traffic management

system, Congress alleges graft in approval process. *The Indian Express*. https://indianexpress.com/article/cities/pune/pune-pmc-to-implement-adaptive-traffic-management-system-to-deal-with-road-chaos-7593447/

Express News Service. (2022, March 7). Municipal Commissioner to take over as PMC administrator on March 15. *The Indian Express.* https://indianexpress.com/article/cities/pune/municipal-commissioner-vikram-kumar-take-over-pmc-administrator-march-15-7805365/

Fanning, A. L. et al. (2020). Provisioning systems for a good life within planetary boundaries. *Global Environmental Change*, *64,* 102135. https://doi.org/10.1016/J.GLOENVCHA.2020.102135

Feinberg, J. (1970). The Nature and Value of Rights. *The Journal of Value Inquiry, 4,* 243-260. https://doi.org/10.1007/BF00137935

Ferguson, J. (1994). The Anti-Politics Machine. In Aradhana Sharma and Akhil Gupta (Eds.) *The Anthropology of the State: A Reader* (pp 270-286). Blackwell Publishing.

Ferguson, T. S. (2013). Using Visual Methods in Social Sciences. In M. Walter (Ed.) *Social Research Methods (3rd Edition)*. Oxford University Press.

Fernandes, L. (2006). *India's New Middle Class: Democratic Politics in an Era of Economic Reform*. University of Minnesota Press.

Fernandes, L. (2015). India's Middle Classes in Contemporary India. In Jacobsen, K.A. (ed.) *Routledge Handbook of Contemporary India* (p. 232-242). Routledge.

Fincher, R., Pardy, M. & Shaw, K. (2016). Place-making or place-masking? The everyday political economy of "making place". *Planning Theory & Practice, 17*(4), 516-536. https://doi-org.ezproxy-prd.bodleian.ox.ac.uk/10.1080/14649357.2016.1217344

Flyvberg, B. (2001). *Making Social Science Matter: Why Social Inquiry Fails and How it Can Succeed Again*. Cambridge University Press.

Frankel, F. (1971). *India's Green Revolution: Economic Gains and Political Costs*. Princeton University Press.

Frankel, F. (1978). *India's Political Economy, 1947-1977: The Gradual Revolution*. Princeton University Press.

Friedman, M. (1962). *Capitalism and Freedom*. University of Chicago Press.

Gadkari, S. (2016, January 29). *Pune ranks 2 on Centre's smart city results list*. https://punemirror.com/pune/civic/pune-ranks-2-on-centres-smart-city-results-list/cid5241475.htm

Gadkari, S. (2022, September 26). Balewadi residents parched, civic officials face 2-hr music. *Pune Mirror*. https://punemirror.com/pune/civic/Balewadi-residents-parched-

civic-officials-face-2-hr-music/cid8605042.htm

Gadkari, S. (2024, October 17). 24x7 water supply plan: Maids sweep major share in PMC SOP to check high usage. *Hindustan Times*. https://www.hindustantimes.com/cities/pune-news/24x7-water-supply-plan-maids-sweep-major-share-in-pmc-sop-to-check-high-usage-101729107894737.html

Gallaher, C. (2009). Introduction. In Gallaher, C. et. al. (Eds.) *Key Concepts in Political Geography*. SAGE Publications.

Gashaw, T, T. (2017, November 17). Colonial Borders in Africa: Improper Design and its Impact on African Borderland Communities. *Wilson Center*. https://www.wilsoncenter.org/blog-post/colonial-borders-in-africa-improper-design-and-its-impact-on-african-borderland-communities?utm_source=chatgpt.com

Gayle, D. (2024, September 23). Earth may have breached seven of nine planetary boundaries, health check shows. *The Guardian*. https://www.theguardian.com/environment/2024/sep/23/earth-breach-planetary-boundaries-health-check-oceans

Ghertner, D. A. (2011). Rule by Aesthetics: World-Class City Making in Delhi. In A. Roy & A. Ong (Eds.), *Worlding Cities: Asian Experiments and the Art of Being Global* (279-306). Wiley-Blackwell.

Ghosh, A. (2005). Public-Private or a Private Public? Promised Partnership of the Bangalore Agenda Task Force. *Economic and Political Weekly, 40*(47), 4914–4922.

Ghosh, S. (2025, March 28). Jawaharlal Nehru National Urban Renewal Mission (2005): Inception, Progress and Way Forward [Policy Update]. *Impact and Policy Research Institute.* https://www.impriindia.com/insights/jawaharlal-nehru-national-urban-missio/

Giddens, A. (1984). *The constitution of society: Outline of the theory of structuration*. University of California Press.

Gilpin, R. (2000). *The Challenge of Global Capitalism: The World Economy in the 21st Century*. Princeton University Press.

Goldman, M. (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

Graham, S. & Marvin, S. (1996). *Telecommunications and the City*. Routledge.

Greenfield, A. (2013). *Against the smart city (The city is here for you to use Book 1)* (1.3). Do projects.

Gupta, A. (1998). *Postcolonial Developments: Agriculture in the Making of Modern India.* Duke University Press.

Guptoo, N. (2015). Divided We Stand: The Indian City After Economic Liberalization. In K.A. Jacobsen (Ed.), *Routledge Handbook of Contemporary India* (pp 216-231). Routledge.

Halpern, O. & Günel, G. (2017). FCJ-215 Demoing unto Death: Smart Cities, Environment, and Preemptive Hope. *The Fibreculture Journal*, *29*. doi:10.15307/fcj.29.215.2017

Hammersley, M. & Atkinson, P. (2007). Oral accounts and the role of interviewing. In *Ethnography: Principles in Practice: Third Edition*. Routeledge.

Harris-White, B. (2003). *India Working: Essays on Society and Economy*. Cambridge University Press.

Harris-White, B. (2017). Formality and informality in an Indian urban waste economy. *International Journal of Sociology and Social Policy, 37*(7-8), 417-434. https://doi.org/10.1108/IJSSP-07-2016-0084

Harriss-White, B. & Harriss, J. (2007). Green Revolution and After: 'The North Arcot Papers' And Long-Term Studies of the Political Economy of Rural Development in South India [Working Paper No. 146]. QEH working Paper Series. Oxford Department of International Development. https://www.qeh.ox.ac.uk/sites/default/files/pdf_docs/qehwps146.pdf

Harvey, D. (1989). From managerialism to entrepreneurialism: The transformation in urban governance in late capitalism. *Geografiska Annaler. Series B, Human Geography, 71*(1), 3-17. https://doi.org/10.2307/490503

Harvey, D. (2001). Globalization and the Spatial Fix. *Geographische Revue, 3*(2), 23-30.

Harvey, D. (2003). *The New Imperialism*. Oxford University Press.

Hayek, F. (1944). *The Road to Serfdom*. University of Chicago Press.

Hayes, P. (Dec. 2009). Santu Mofokeng, Photographs: "The Violence Is in the Knowing." *History and Theory*, *48*(4), Theme Issue 48: Photography and Historical Interpretation, edited by Jennifer Tucker, 34-51.

Hibou, B. (2004). From privatising the economy to privatising the state: An analysis of the continual formation of the state. In B. Hibou (Ed.), *Privatising the State*. Hurst & Company, London.

Hogan, S. (2022). *Photography: Arts for Health*. Emerald Publishing Limited.

Hollands, R. G. (2008). Will the Real Smart City Please Stand Up? *City, 12*(3), 303–320.

Hood, C. (1991). A Public Management for All Seasons? *Public Administration*, *69*(1), 3–19. https://doi.org/10.1111/j.1467-9299.1991.tb00779.x

Housing and Land Rights Network. (2017). *India's Smart Cities Mission: Smart for*

Whom? Cities for Whom?. https://www.escr-net.org/resources/indias-smart-cities-mission-smart-whom-cities-whom

Hughes, M., Tilbury, C., Bigby, C. & Fisher, M. (2021). Using Grey Literature in the Human Services: Perspectives of Australian Research End Users. Advances in Social Work and Welfare Education, 22(2), 9-24.

Hurl, C. & Vogelpohl, A. (2021). Introduction: The Rise of Professional Service Firms as Public Policy Actors. In C. Hurl & A. Vogelpohl (Eds.), *Professional Service Firms and Politics in a Global Era* (pp. 1–25). Springer International Publishing. https://doi.org/10.1007/978-3-030-72128-2_1

INHAF. (2022). *Engaging with Maharashtra's Smart City Program, A Way Forward: Aurangabad Local Partner Report*. https://drive.google.com/file/d/12Q60V0cpF9MVJ0TxUYd1P7H4TJbhk0vc/view?usp=share_link

INHAF. (2022a). *Engaging with Maharashtra's Smart City Program, A Way Forward: Thane Local Partner Report*. https://drive.google.com/file/d/1GxCCdL0AoMRe1y8wjprB6s8f8F66y-aB/view?usp=share_link

INHAF. (2023). *Engaging with Maharashtra's Smart City Program, A Way Forward.* https://drive.google.com/file/d/13q5PSRVnhxxEROK_z5B2dbgq4uTYbwba/view?usp=drive_link

Inkeles, A. & Smith, D. H. (1974). *Becoming modern: Individual change in six developing countries.* Harvard University Press.

Jackson, T. (2017). *Prosperity without Growth: Economics for a Finite Planet (Second Edition)*. Routledge.

Jadhav, A. (2024, January, 11). As deadline for Smart City Mission nears, process to hand over projects to Pune municipal body speeded up. *The Indian Express*. https://indianexpress.com/article/cities/pune/pune-smart-city-mission-deadline-pmc-9103793/

Jadhav, R. (2019, February 25). *What's smart about Smart Cities?* https://www.thehindubusinessline.com/specials/india-file/whats-smart-about-smart-cities/article26367835.ece

Jaffrelot, C., Kohli, A. & Murali, K. (2019). Introduction. In C. Jaffrelot, A. Kohli & K. Murali (Eds.) *Business and Politics in India*. Oxford University Press.

Jayal, N.G. (1999). *Democracy and the State: Welfare, Secularism, and Development in Contemporary India*. Oxford University Press.

Jensenius, F. R. (2016). Competing Inequalities? On the Intersection of Gender and Ethnicity in Candidate Nominations in Indian Elections. *Government and Opposition, 51*(3), 440-463

Jessop, B. (2002a). Liberalism, Neoliberalism, and Urban Governance: A State-Theoretical Perspective, *Antipode*, 452-472.

Jessop, B. (2015). Crises, crisis-management and state restructuring: What future for the state? *Policy and Politics, 43*(4), 475-492.

Jha, R. (2022, April 19). Administrators in municipal corporations: what does it mean? *Observer Research Foundation: Expert Speak*. https://www.orfonline.org/expert-speak/administrators-in-municipal-corporations

John, M. E. (2007). Women in Power? Gender, Caste, and the Politics of Local Urban Governance. *Economic and Political Weekly*, 42(39), 3986-3993. https://www.jstor.org/stable/40276476

Joshi, Y. (2010, June 06). NCP chief's links with Deshpande spans 20 yrs. *Hindustan Times*. https://www.hindustantimes.com/india/ncp-chief-s-links-with-deshpande-spans-20-yrs/story-A9EUpucmM3UUyjxlvYHphP.html

Kan, K. (2020). Building SoHo in Shenzhen: The territorial politics of gentrification and state making in China. *Geoforum, 111*, 1-10. https://doi.org/10.1016/j.geoforum.2020.01.020

Kapur, D. (2010). Political Economy of the State. In N. G. Jayal and P. B. Mehta (Eds.) The *Oxford Companion to Politics in India*. Oxford University Press.

Karale, N. (2024, July 25). Heavy Rains in Baner-Balewadi: Roads Submerged, Residents Stranded. *The Bridge Chronicle*. https://www.thebridgechronicle.com/news/heavy-rains-in-baner-balewadi-roads-submerged-residents-stranded

Kaur, R. (2020). *Brand New Nation: Capitalist Dreams and Nationalist Designs in Twenty-First-Century India*. Stanford University Press.

Kaviraj, S. (2012). *The Trajectories of the Indian State: Politics and Ideas*. Orient Blackswan.

Keating, M. (1989). Quo Vadis? Challenges of Public Administration. *Australian Journal of Public Administration*, *48*(2), 123–131. https://doi.org/10.1111/j.1467-8500.1989.tb02206.x

Keider, N. et al. (2023). Progress in Placemaking. *Planning Theory & Practice*, *25*(1), 143–151. https://doi-org.ezproxy-prd.bodleian.ox.ac.uk/10.1080/14649357.2023.2286131

Kennedy, L. (2017). State restructuring and emerging patterns of subnational policy-making and governance in China and India. *Environment and Planning C: Politics and Space, 35*(1). Online First. https://doi-org.ezproxy-

prd.bodleian.ox.ac.uk/10.1177/0263774X16630551

Kennedy, L. & Sood, A. (2016). Greenfield Development as Tabula Rasa. Rescaling, Speculation and Governance on India's Urban Frontier. *Economic and Political Weekly, 51*(17), 41-49.

Keynes, J. M. (1936). *The General Theory of Employment, Interest, and Money*. Palgrave Macmillan.

Khairnar, A. (2018, April 19). HT Spotlight: How tanker 'mafia' controlling flow of water in Pune. *Hindustan Times*. https://www.hindustantimes.com/pune-news/ht-spotlight-pune-s-water-tanker-mafia-is-sinking-housing-societies/story-JdkoTT00GeSdvQgbX0kkbO.html

Khairnar, A. (2019, August 8). Encroachments, concretisation lead to floods in Pune's Aundh and Baner areas. *Hindustan Times*. https://www.hindustantimes.com/cities/encroachments-concretisation-lead-to-floods-in-pune-s-aundh-and-baner-areas/story-A61y9gmdo1Ci4Uki9fpl2O.html

Khan, S., Walker, D. & Diaz, E. (2011). *Elites*. *obo* in Sociology. doi: 10.1093/obo/9780199756384-0017

Kitchin, R. (2015). Making sense of smart cities: Addressing present shortcomings. *Cambridge Journal of Regions, Economy and Society, 8(*1), 131–136. https://doi.org/10.1093/cjres/rsu027

Kitchin, R. (2019). The Timescape of Smart Cities. *Annals of the American Association of Geographers, 109*(3), 775-790. https://doi.org/10.1080/24694452.2018.1497475

Kitchin, R. (2023). *Digital Timescapes: Technology, Temporality and Society*. Polity.

Kitchin, R. (2024). Distant time and the spatio-temporalities of statecraft. *Dialogues in Human Geography*, 1–5. DOI: 10.1177/20438206241278951

Klein, N. (2014). *This Changes Everything: Capitalism vs. the Climate*. Simon and Schuster.

Knight Frank. (2017). *India Real Estate*. https://content.knightfrank.com/research/659/documents/en/india-real-estate-july-december-2017-5176.pdf

Knight Frank. (2023). *India Real Estate*. https://content.knightfrank.com/research/2695/documents/en/india-real-estate-residential-and-office-market-h1-2023-10306.pdf

Kohli, A. (2006a). Politics of Economic Growth in India, 1980-2005, Part I. *Economic and Political Weekly*, *41*(13), 1251–1259.

Kohli, A. (2006b). Politics of Economic Growth in India, 1980-2005, Part II. *Economic and Political Weekly*, *2001*, 1251–1259.

Kohli, A. (2009). *Democracy and Development in India: From Socialism to Pro-Business*. Oxford India Paperbacks.

KPMG. (2021, March). Road to Sustainable Smart Cities: Challenges, Opportunities, and Emerging Trends. https://kpmg.com/in/en/home/insights/2021/03/sustainable-smart-cities-challenges-opportunities.html

Kopardekar, G. (2019). Unraveling 'Smart' Urbanization: Understanding Theories and the Concept. *Public Policy, 9*(1), 18.

Krishnamurthy, R., Mishra, R. & Desouza, K. C. (2016). City profile: Pune, India. *Cities, 53*, 98-109. http://dx.doi.org/10.1016/j.cities.2016.01.011

Krishnan, M. (2023, July 26). India's smart cities project hounded by delays. *DW Asia*. https://www.dw.com/en/indias-smart-cities-project-hounded-by-delays/a-66355352

Krugman, P. (1994). *Peddling Prosperity: Economic Sense and Nonsense in the Age of Diminished Expectations*. W. W. Norton & Company.

Kulkarni, P. (2023, August 1). 7 years after announcement, Aundh slum rehab project yet to take off. *The Times of India*. https://timesofindia.indiatimes.com/city/pune/7-years-after-announcement-aundh-slum-rehab-project-yet-to-take-off/articleshow/102295808.cms

Kulkarni, P. (2025, July 9). Eight years on, construction work of overhead tanks for 24x7 water supply project yet to be completed. *The Times of India*. https://timesofindia.indiatimes.com/city/pune/eight-years-on-construction-work-of-overhead-tanks-for-24x7-water-supply-project-yet-to-be-completed/articleshow/122327636.cms

Langmann, S. & Pick, D. (2018). *Photography as a Social Research Method*. Springer.

Lefebvre, H. (1974). *The Production of Space*. Translated by Donald Nicholson-Smith. Wiley-Blackwell.

Leftwich, A. (1994). Governance, the State, and the Politics of Development. *Development and Change, 25,* 363-386.

Li, L. (2022). How to tackle variations in elite interviews: Access, strategies, and power dynamics. *Qualitative Research, 22*(6), 846-861. https://doi-org.ezproxy-prd.bodleian.ox.ac.uk/10.1177/1468794121994475

Lindblom, C. (1977). *Politics and Markets: The World's Political Economic Systems*. Basic Books.

Loftus, A. et al. (2016). Water Infrastructure and the Making of Financial Subjects in the South East of England. *Water Alternatives, 9*(2), 319-335. https://www.water-alternatives.org/index.php/alldoc/articles/vol9/v9issue2/318-a9-2-8/file?utm_

Luque-Ayala, A. & Marvin, S. (2015). Developing a critical understanding of smart urbanism? *Urban Studies, 52*(12), 2105–2116.

Mahadevia, D. (2011). Branded and Renewed ? Policies, Politics and Processes of Urban Development in the Reform Era. *Economic and Political Weekly*, *46*(31), 56–64.

Maiorano, D. (2016). The Politics of Economic Reforms in India. In K.A. Jacobsen (Ed.) *Routledge Handbook of Contemporary India* (pp 203-215). Routledge.

Manning, N. (2001). The Legacy of New Public Management in Developing Countries. *International Review of Administrative Sciences, 67*(2), 297-312. http://dx.doi.org/10.1177/0020852301672009

Marston, S. A. (2000). The Social Construction of Scale. *Progress in Human Geography, 24*(2), 219-242. https://doi.org/10.1191/030913200674086272

Mata, W. (2023, October 17). What is Neom? The $500 billion Saudi Arabian 'smart city'. *Evening Standard*. https://www.standard.co.uk/news/world/neom-saudi-arabia-smart-city-mohammed-bin-salman-b1114036.html

Mathew, J. (1986). *Ideology, Protest, and Social Mobility: Case Study of Mahars & Pulayas*. Inter-India Publications.

Mathur, K. (2014). Business, Policy Spaces, and Governance in India. In L. A. Jacobs (Ed.), *Linking Global Trade and Human Rights* (pp. 153–173). Cambridge University Press.

May, J. & Thrift, N. (2001). *Timespace: Geographies of Temporality*. Routledge.

Mayhew, S. (2015). Temporality. In *A Dictionary of Geography (5th Edition)*. Oxford University Press. https://www.oxfordreference.com/display/10.1093/acref/9780199680856.001.0001/acref-9780199680856-e-3662

Mazzucato, M. (2013). *The Entrepreneurial State*. Anthem Press.

Mazzucato, M. & Collington, R. (2023). *The Big Con: How the Consulting Industry Weakens our Businesses, Infantilizes our Governments and Warps our Economies*. Allen Lane.

Mazumdar, S. (2008). Crony Capitalism and India: Before and After Liberalization [Working Paper No. 2008/4]. The Institue for Studies in Industrial Development (ISID).

McFarlane, C. & Söderström, O. (2017). On alternative smart cities: From a technology-intensive to a knowledge-intensive smart urbanism. *City, 21*(3-4), 312-328. https://doi-org.ezproxy-prd.bodleian.ox.ac.uk/10.1080/13604813.2017.1327166

McKinsey Global Institute (MGI). (2018). *Smart Cities in Southeast Asia*. https://www.mckinsey.com/~/media/mckinsey/business%20functions/operations/our%20insights/smart%20cities%20in%20southeast%20asia/mgi-smart-cities-in-southeast-asia.pdf

Menon, N. (2000). Elusive 'Woman': Feminism and Women's Reservation Bill. *Economic and Political Weekly, 35*(43/44), 3835-44. https://www.jstor.org/stable/4409891

Merriam, S. B. & Tisdell, E. J. (2016). *Qualitative Research: A Guide to Design and Implementation (4th Edition)*. Jossey Bass.

Michaelson, R. (2020, May 4). 'It's being built on our blood': The true cost of Saudi Arabia's $500bn megacity. *The Guardian*. https://www.theguardian.com/global-development/2020/may/04/its-being-built-on-our-blood-the-true-cost-of-saudi-arabia-5bn-mega-city-neom

Miliband, R. (1969). *The State in Capitalist Society*. Basic Books.

Mill, J. S. (1970/1848). Principles of Political Economy (Classics). Penguin. (Original work published in 1848).

Mills, C. W. (1997). *The Racial Contract*. Cornell University Press.

Ministry of Urban Development (MoUD). (June, 2015). Smart City Mission Statement and Guidelines. https://smartnet.niua.org/sites/default/files/resources/smartcityguidelines.pdf

Ministry of Urban Development (MoUD). (February, 2017). Value Capture Finance Policy Framework. Government of India. https://mohua.gov.in/upload/whatsnew/59c0bb2d8f11bVCF_Policy_Book_FINAL.pdf

Misra, T. (2015, December 11). *Mapping 65 Years of Explosive Urban Growth*. Bloomberg UK. https://www.bloomberg.com/news/articles/2015-12-11/mapping-65-years-of-explosive-urban-growth-around-the-world

Mitchell, T. (2002). *Rule of Experts: Egypt, Techno-Politics, Modernity*. University of California Press.

Möller, S. (2021). Connecting Local Government with Global Finance: Professional Service Firms as Agents of Financialization. In C. Hurl and A. Vogelpohl (Eds.), *Professional Service Firms and Politics in a Global Era*. https://doi.org/10.1007/978-3-030-72128-2_9

Mosse, D. (2005). *Cultivating Development: An Ethnography of Aid Policy and Practice*. Pluto Press.

Moyer, M. (2012, July 2023). Yes, Government Researchers Really Did Invent the Internet. *Scientific American*. https://blogs.scientificamerican.com/observations/yes-government-researchers-really-did-invent-the-internet/

Murali, K. (2019). Economic Liberalization and the Structural Power of Business in India. In C. Jaffrelot et al. (Eds.), *Business and Politics in India* (pp. 25–49). Oxford University Press.

Myers, C. T. (2002). *From public sector management to governance: Changing ideas about economic development, the state, and the World Bank* [Doctoral Dissertation, University of Michigan]. ProQuest Database. https://www.proquest.com/dissertations-theses/public-sector-management-governance-changing/docview/305587134/se-

n.a. (2021, December 21). BHK Voice|Building Magarpatta City and Sharad Pawar's role in it [video]. https://www.moneycontrol.com/news/business/real-estate/building-magarpatta-city-and-sharad-pawars-role-in-it-7850901.html

Nader, L. (1974). *Up the Anthropologist: Perspectives Gained From Studying Up*. Pantheon Books.

Narendra Modi (Director). (2015, June 25). *PM Modi's speech at the launch of the Smart Cities Mission, AMRUT & Housing for All Mission* [Video]. YouTube. https://www.youtube.com/watch?v=5lwYEY-r6O8

Narendra Modi. (2016, June 25). *PM Modi at the launch of Smart City Projects in Pune, Maharashtra* [Video]. YouTube. https://www.youtube.com/watch?v=3EpyRtxxfVU

Natow, R. S. (2020). The use of triangulation in qualitative studies employing elite interviews. *Qualitative Research, 20*(2), 160-173. DOI: 10.1177/1468794119830077

Nayyar, B. R. (2009). *The Myth of the Shrinking State: Globalization and the State in India*. Oxford University Press.

Nayyar, D. (2007). Globalisation: What does it mean for higher education? *Economic & Political Weekly, 42*(50), 30-35. http://dx.doi.org/10.2307/40277048

Nethercote, M. (2022). The Techno-politics of Rental Housing Financialization: Real Estate Service Companies and Technocratic Expertise in Australia's Build to Rent Market. *Economic Geography*, *99*(2), 191–219. https://doi.org/10.1080/00130095.2022.2140038

NITI Aayog. (2020). Transferable Development Rights: Guidelines for Implementation of TDR Tool for Achieving Urban Infrastructure in India.

NITI Aayog. (2021). Reforms in Urban Panning Capacity in India. https://www.niti.gov.in/sites/default/files/2021-09/UrbanPlanningCapacity-in-India-16092021.pdf

Olmstead, N. A. (2019). Data and Temporality in the Spectral City. *Philosophy & Technology, 34*, 243-263. https://doi.org/10.1007/s13347-019-00381-8.

Ong, A. (2006). *Neoliberalism as Exception: Mutations in Citizenship and Sovereignty*. Duke University Press. https://doi.org/10.1215/9780822387879

Ong, A. (2011). Introduction: Worlding Cities, or the Art of Being Global. In Roy, A. & Ong, A. (Eds.). *Worlding Cities: Asian Experiments and the Art of Being Global* (1-26). Wiley-Blackwell.

Osborne, D. E. & Gaebler, T. (1994). *Reinventing Government: How the Entrepreneurial Spirit is Transformingthe Public Sector: The Five Strategies for Reinventing Government* (New edition). Penguin.

Pandey, G. (2022, August 3). Smart city projects are like start-ups, will have sustainable revenue generation model. *The Economic Times: Government*. https://government.economictimes.indiatimes.com/news/smart-infra/smart-city-projects-are-like-start-ups-will-have-sustainable-revenue-generation-model-mission-director-rahul-kapoor/93318475

Parikh, A. (2015). *The Private City: Planning, Property, and Protest in the Making of Lavasa New Town, India* [Doctoral Dissertation: London School of Economics and Political Science].

Parkar, K. & Purandare, U. (2023). *Decoding Digitalization of Urban Governance in India: Policy, People, and Processes of the Smart Cities Mission and National Urban Digital Mission*. Centre for Policy Research.

Parsons, T. (1951). *The Social System*. Free Press, New York.

Pateman, C. (1988). *The Sexual Contract*. Polity Press.

Pawar-Chalke, N. & Still, E. (2020). Survey Findings and Analysis. In Pawar-Chalke, N. & Still, E. (Eds.) *How Smart is Pune*? MASHAL Pune.

Permanent Mission of India to the UN. (2017). *PSLV-C37 Successfully Launches 104 Satellites in a Single Flight* [Press Release]. https://pmindiaun.gov.in/pressrelease/MjI,

PIB Delhi. (2025, June 10). *MoHUA issues Advisory for Repurposing of Smart City SPVs* [Press Release]. Press Information Bureau, Government of India. https://www.pib.gov.in/PressReleasePage.aspx?PRID=2135474

Piketty, T. (2014). *Capital in the Twenty-First Century*. Harvard University Press.

PMC. (n.d.). Rich Legacy. https://www.pmc.gov.in/en/rich-legacy#:~:text=The%20civic%20affairs%20of%20Pune,his%20contribution%20to%20the%20society.

Poli, R. (2015). Social foresight. *On the Horizon: The International Journal of Learning Futures, 23*(2), 85–99. https://doi.org/10.1108/OTH-01-2015-0003

Poulantzas, N. (1978/1968). *Political Power and Social Classes* (T. O'Hagan, Trans.). Verso. (Original work published 1968).

Praharaj, S. (2020). Development Challenges for Big Data Command and Control Centres for Smart Cities in India. In N. Biloria (Ed.), *Data-driven Multivalence in the Built Environment* (75–90). Springer International Publishing. https://doi.org/10.1007/978-3-030-12180-8_4

Prakash, D. (2025). Why do smart city projects fail to create impact? Understanding decision-making in smart city policy implementation. *Urban Governance, 5*(1), 45-53. https://doi.org/10.1016/j.ugj.2025.02.004

Prasad, D. & Alizadeh, T. (2020). What Makes Indian Cities Smart? A Policy Analysis of Smart Cities Mission. *Telematics and Informatics*, 55, 101466. https://doi.org/10.1016/j.tele.2020.101466

Prasad, D., Alizadeh, T. & Dowling, R. (2021). Multiscalar smart city governance in India, *Geoforum, 121*, 173-180. https://doi.org/10.1016/j.geoforum.2021.03.001

Prasad, D., Alizadeh, T., & Dowling, R. (2022). Smart city place-based outcomes in India: Bubble urbanism and socio-spatial fragmentation. *Journal of Urban Design*, 27(4), 483–503. https://doi.org/10.1080/13574809.2021.2022978

Prior, L. (2003). Using documents in social research. *SAGE Publications Ltd*, https://doi.org/10.4135/9780857020222

Priyadarshi, P. K. (2018). *Political Determinants of Municipal Capacity: A Study of Urban Reforms in Ahmedabad and Kanpur, India* [Doctoral Dissertation, London School of Economics and Political Science]. LSE Theses Online. https://etheses.lse.ac.uk/3782/

Project for Public Spaces. (2007). *What is placemaking?* Project for Public Spaces. https://www.pps.org/article/what-is-placemaking

Pune Municipal Corporation. (n.d.). Pune: The Dynamic City of the World. https://pmc.gov.in/mr/jll-city-momentum-index-2017

Pune Municipal Corporation. (2015a). Reimagining Pune: Mission Smart City Detailed plan to transform Pune into a world-class Smart City [Smart City Proposal]. https://www.pmc.gov.in/sites/default/files/project-glimpses/Pune%20Smart%20City%20Proposal%20Part-I.pdf

Pune Municipal Corporation. (2015b, December). To convert Pune into a world-class Smart City.

Pune Municipal Corporation. (2015c). Smart Pune: Creation of a Vision Community. https://www.pmc.gov.in/en/smart-pune-creation-vision-community

Pune Smart City Development Corporation Limited (PSCDCL). (n.d.). https://punesmartcity.in

Punekar News (2022, July 28). 28% Population Of Pune City Live in 290 Slums. *Punekar News*. https://www.punekarnews.in/28-population-of-pune-city-live-in-390-slums/

Punekar News (2024, May 20). Pune's residential real estate market records 56% rise in sales value in Q1 2024 to Rs 17,837 cr. *Punekar News*. https://www.punekarnews.in/punes-residential-real-estate-market-records-56-rise-in-sales-value-in-q1-2024-to-rs-17837cr/

Purandare, U. & Parkar, K. (2020). "Eyes and Ears": Surveillance in the Indian Smart City. In J. C. Augusto (Ed.), *Handbook of Smart Cities* (1–32). Springer International Publishing. https://doi.org/10.1007/978-3-030-15145-4_60-1

Purandare, U. (2021). Who Drives India's Smart Cities? Understanding the Role of Consulting Firms in the Smart Cities Mission. In C. Hurl & A. Vogelpohl (Eds.), *Professional Service Firms and Politics in a Global Era* (pp. 79–96). Springer International Publishing. https://doi.org/10.1007/978-3-030-72128-2_4

Purandare, U. (2023, January 17). *A Typology of Smart City Consultants in India*. Analog Pasts and Digital Futures: Reflections on India's Smart Cities Mission, New Delhi.

Purandare, U., & Parkar, K. (2020). "Eyes and Ears": Surveillance in the Indian Smart City. In J. C. Augusto (Ed.), *Handbook of Smart Cities* (pp. 1–32). Springer International Publishing. https://doi.org/10.1007/978-3-030-15145-4_60-1

PwC. (2017). A quarterly solutions-based project update report: Snapshots of projects under Lighthouse Smart Cities. www.pwc.in

PwC. (2015). PwC Smart Cities PoV. https://www.smartcitiescouncil.com/resources/pwc-smart-cities-pov-0

Quinatana, E. (2017). India's Space Programme Goes Sky High. *Royal United Services Institute*. https://www.rusi.org/explore-our-research/publications/rusi-defence-systems/indias-space-programme-goes-sky-high

Rai, S. M. (1999). Democratic institutions, political representation and women's empowerment: The quota debate in India, *Democratization, 6*(3), 84-99. http://dx.doi.org/10.1080/13510349908403622

Ray, A. (2020). IT-Oriented Infrastructural Development, Urban Co-Dependencies, and the Reconfiguration of Everyday Politics in Pune, India. *Urban Planning, 5*(4), 371–383. DOI: 10.17645/up.v5i4.3506

Rhodes, R.A.W. (2017). *Network Governance and The Differentiated Polity: Selected Essays, Volume I*. Oxford University Press.

Rockström, J. et al. (2009). A safe operating space for humanity. *Nature, 46,* 472-475.

Rodrik, D. & Subramanian, A. (2004). *From "Hindu Growth" to Productivity Surge: The Mystery of the Indian Growth Transition* (WP/04/77). IMF Working Paper. https://www.imf.org/external/pubs/ft/wp/2004/wp0477.pdf

Rogers, A., Castree, N. & Kitchin, R. (2013). Scale. *In A Dictionary of Human Geography*. Oxford University Press. https://www.oxfordreference.com/display/10.1093/acref/9780199599868.001.0001/acref-9780199599868-e-1629?rskey=a0adUJ&result=1621

Rose, G. (2007). *Visual Methodologies: An Introduction to Researching with Visual Materials (2nd Edition)*. SAGE Publications.

Rostow, W. W. (1960). *The stages of economic growth: A non-communist manifesto*. Cambridge University Press.

Rovelli, C. (2019). *The Order of Time*. Penguin Books.

Roy, A. (2009). Why India cannot plan its cities: Informality, insurgence and the idiom of urbanization. *Planning Theory, 8*(1), 76-87. DOI: 10.1177/1473095208099299

Roy, S. & Chatterji, T. (2020). The smart city policy of India and its governance implications. In Y-M. Joo & T-B. Tan (Eds.), *Smart Cities in Asia: Governing Development in the Era of Hyper-Connectivity* (pp 108-126). Elgaronline. https://doi.org/10.4337/9781788972888

Roy Chowdhury, A. (2018). State Formation from Below: Social Movements of Dam Evictees and Legal Transformation of the Local State in India, 1960–76. *South Asia: Journal of South Asian Studies*, *41*(1), 194–211. https://doi.org/10.1080/00856401.2018.1406445

Rudolph, L. I. & Rudolph, S. H. (1987). *In Pursuit of Lakshmi: The Political Economy of the Indian State*. University of Chicago Press.

Sadowski, J. & Bendor, R. (2019). Selling Smartness: Corporate Narratives and the Smart City as a Sociotechnical Imaginary. *Science, Technology & Human Values, 44*(3), 540-563. DOI: 10.1177/0162243918806061

Sajjanhar, A. (2024). *The New Experts: Populist Elites and Technocratic Promises in Modi's India*. Cambridge University Press.

Sami, N. (2012). *Building Alliances: Power and Politics in Urban India* [Doctoral Dissertation, University of Michigan]. ProQuest database. https://www.proquest.com/docview/1026964104?pq-origsite=gscholar&fromopenview=true

Sami, N. (2013). Power to the People? A Study of Bangalore's Urban Task Forces. In G. Shatkin (Ed.) *Contesting the Indian City: Global Visions and the Politics of the Local* (pp 146-169). Wiley-Blackwell.

Sami, N. & Anand, S. (2021). Expert Advice? Assessing the Role of the State in Promoting Privatized Planning. In C. Hurl & A. Vogelpohl (Eds.), *Professional Service Firms and Politics in a Global Era* (pp. 273–292). Springer International Publishing. https://doi.org/10.1007/978-3-030-72128-2_14

Sassen, S. (1991). The Global City: Strategic Site/New Frontier. *American Studies*, *41*(2), 79–95.

Scheck, J., Jones, R., & Said, S. (2019, July 25). A Prince's $500 Billion Desert Dream: Flying Cars, Robot Dinosaurs and a Giant Artificial Moon. *The Wall Street Journal*. https://www.wsj.com/articles/a-princes-500-billion-desert-dream-flying-cars-robot-dinosaurs-and-a-giant-artificial-moon-11564097568

Schneekloth, L. H. &. Shibley, R. G. (1995). *Placemaking: The Art and Practice of Building Communities*. Wiley.

Schou, P. K. (2024). Unpacking the myth of the entrepreneurial state. *Journal of Business Venturing Insights, 21* (2024), e00454. https://doi.org/10.1016/j.jbvi.2024.e00454

Scott, J. (2014). State. In *A Dictionary of Sociology* (Fourth Edition).

Scroll Staff. (2023, November 8). *Modi government paid global consultancy firms Rs 500 crores in five years, says report* [Text]. Scroll.In; https://scroll.in. https://scroll.in/latest/1058824/modi-government-outsourced-work-worth-rs-500-crore-to-consultancy-firms-in-five-years-says-report

Searle, L. (2010). *Making Space for Capital: The Production of Global Landscapes in Contemporary India* [Doctoral Dissertation: University of Pennsylvania]. Publicly Accessible Penn Dissertations. 160.

Sen, S., Hobson, J. & Joshi, P. (2003). The Pune Slum Census: Creating a Socio-Economic and Spatial Information base on a GIS for integrated and inclusive city development. *Habitat International, 27*(4), 595-611. https://doi.org/10.1016/S0197-3975(03)00007-9.

Shahi, I. (2025). Producing the ghats of Banaras as world-class spaces: The mobilization of Nishad boatmen. *International Journal of Urban and Regional Research, 49(*3), 514-530.

Shatkin, G. (2008). The city and the bottom line: urban megaprojects and the privatization of planning in Southeast Asia. *Environment and Planning A: Economy and Space, 40*, 383-401. DOI:10.1068/a38439

Shatkin, G. (2018). *Cities for Profit (Vol. 1).* Cornell University Press. https://doi.org/10.7591/cornell/9781501709906.001.0001

Shatkin, G. (2022). Mega-urban politics: Analyzing the infrastructure turn through the national state lens. *Environment and Planning A: Economy and Space, 54(*5), 845-866. DOI: 10.1177/0308518X221087713

Shekhawat, A. (2025, January 22). Mumbai-Pune Expressway: History, Structure, Missing Link And More. Maps of India. https://www.mapsofindia.com/my-india/automobiles/mumbai-pune-expressway-history-structure-missing-link-and-more

Shelton, T., Zook, M. & Wiig, A. (2015). The 'actually existing smart city.' *Cambridge Journal of Regions, Economy and Society, 8*, 13–25. DOI:10.1093/cjres/rsu026

Shrikanth, S. (2019, June 26). Government use of consultants soars in India. *Financial Times*. https://www.ft.com/content/76f530ae-787e-11e9-b0ec-7dff87b9a4a2

Sinha, A. (2019). India's Porous State: Blurred Boundaries and the Evolving Business-State Relationship. In C. Jaffrelot (Ed.), *Business and Politics in India* (pp. 50–92). Oxford University Press.

Sinkovics, R. R. & Alfoldi, E.A. (2012). Progressive focusing and trustworthiness in qualitative research: The enabling role of computer-assisted qualitative data analysis software (CAQDAS). *Management International Review, 52*(6), 817-845.

Sircar, S. (2017). 'Census Towns' in India and what it means to be 'urban': Competing epistemologies and potential new approaches. *Singapore Journal of Tropical geography, 38*, 229-244.

Slobodian, Q. (2018). *Globalists: The End of Empire and the Birth of Neoliberalism*. Harvard University Press.

Slobodian, Q. (2023). *Crack-up capitalism: Market radicals and the dream of a world without democracy*. Metropolitan books.

Smart Cities Mission. (2024, February). The #PuneSmartCity remains at the forefront of substantial advancement, demonstrated by its innovative 'Smart Clinic' initiative. This initiative provides complimentary primary [Thumbnail with link attached] [Post]. LinkedIn. https://www.linkedin.com/posts/smart-cities-mission_punesmartcity-smartcitykismartkahani-smartcitiesmission-activity-7163021832961441792-64Un?utm_source=share&utm_medium=member_desktop

Smart Cities Mission. (2024a, February). Exciting times ahead! Come explore the innovative projects of the #SmartCitiesMission at the 9th India Smart Cities Expo in New Delhi [Thumbnail with link attached] [Post]. LinkedIn. https://www.linkedin.com/posts/smart-cities-mission_smartcitiesmission-smartcitiesinnewindia-activity-7153720861642948608-WB8w?utm_source=share&utm_medium=member_desktop

Smart Pune [@SmartPune]. (2023, September 27). An esteemed moment as our Honorable President graces the Smart City Conclave 2023 Award Ceremony, recognizing excellence in urban innovation [Image attached] [Post]. https://twitter.com/SmartPune/status/1706920397583818977

Smith, A. (2008/1776). *The Wealth of Nations*. Wilder Publications. (Original work published 1848).

Smith, K. (2006). Problematising power relations in "elite" interviews. *Geoforum*, *37*(4), 643-653. https://doi.org/10.1016/j.geoforum.2005.11.002

Smith, R. M., Pathak, P. A., & Agrawal, G. (2019). India's "smart" cities mission: A preliminary examination into India's newest urban development policy. *Journal of* Urban Affairs, 41(4), 518–534. https://doi.org/10.1080/07352166.2018.1468221

Söderström, O., Paasche, T. & Klauser, F. (2014). Smart cities as corporate storytelling. *City, 18*(3), 3017-320. DOI:10.1080/13604813.2014.906716

Sridharan, M. A. (2024, December 22). What Does A Chief Knowledge Officer (CKO) Do? *Think Insights*. https://thinkinsights.net/consulting/what-does-chief-knowledge-officer-cko-do

Srivastava, S. (2020). Hindu majoritarianism, forms of capital, and urban politics: The making of a new ordinary citizen in India. *HAU: Journal of Ethnographic Theory, 10*(3), 742-749.

Stake, R. E. (1995). *The Art of Case Study Research*. Sage Publications.

Stake, R. E. (2010). *Qualitative research: Studying how things work.* The Guildford Press.

Steffen, W. et al. (2015). Planetary boundaries: Guiding human development on a changing planet. *Science, 347*(6223). https://doi.org/10.1126/science.1259855

Stein, F. (2018). Selling Speed: Management Consultants, Acceleration, and Temporal Angst. *PoLAR: Political and Legal Anthropology Review*, *41*(S1), 103–117. https://doi.org/10.1111/plar.12256

Stevenson, R. L. (2019/1886). *Strange Case of Dr Jekyll and Mr Hyde* (Legend Classics, First Edition). Legend Press. (Original work published in 1886).

Stiglitz, J. E. (2012). *The Price of Inequality: How Today's Divided Society Endangers Our Future*. W. W. Norton & Company.

Stoler, A. L. (2002). Colonial archives and the arts of governance. *Archival Science*, *2*, 87-109. https://doi.org/10.1007/BF02435632

Strange, S. (1996). *The Retreat of the State*. Cambridge University Press.

Subramanian, A. (2019). *The Caste of Merit: Engineering Education in India*. Harvard University Press.

Subramanian, T. S. (2003). *Launching Successes*. Frontline. https://frontline.thehindu.com/other/advertorial/article30218302.ece?utm_source=chatgpt.com

Sud, N. (2009). The Indian State in a Liberalizing Landscape. *Development and Change, 40*(4), 645-665.

Sud, N. (2014a). Governing India's Land. *World Development, 60*, 43–56. http://dx.doi.org/10.1016/j.worlddev.2014.03.015

Sud, N. (2014b). The men in the middle: a missing dimension in global land deals. *Journal of Peasant Studies, 41*(4), 593-612. DOI: 10.1080/03066150.2014.920329

Sud, N. (2017). State, scale and networks in the liberalisation of India's land. *Environment and Planning C: Politics and Space*, *35*(1), 76–93. https://doi.org/10.1177/0263774X16655801

Sultana, F. (2023). Whose growth in whose planetary boundaries? Decolonising planetary justice in the Anthropocene. *Geography and Environment, 10*(2). https://doi.org/10.1002/geo2.128

Taraporevala, P. (2018). *Demystifying the Indian Smart City: An empirical reading of The Smart Cities Mission (Working Paper)*. Centre for Policy Research. https://cprindia.org/workingpapers/demystifying-the-indian-smart-city-an-empirical-reading-of-the-smart-cities-mission/

Team HT. (2018, May 19). HT investigation: Pune's water mafia exposed in a ₹100 crore a year thriving racket. *Hindustan Times*. https://www.hindustantimes.com/pune-news/ht-investigation-pune-s-water-mafia-exposed-in-a-rs-100-crore-a-year-thriving-racket/story-EOUOxBRnjR4hwBCvzMGGxM.html

te Lintelo, D. J. H. & Hemmersam, P. (2024). Displaceability, placemaking and urban wellbeing. *Wellbeing, Space and Society, 7*. https://doi.org/10.1016/j.wss.2024.100229

Temenos, C. & McCann, E. (2013). Geographies of Policy Mobilities. *Geography Compass, 7*(5), 344-357. https://doi.org/10.1111/gec3.12063

Thachil, T. (2014). *Elite Parties, Poor Voters: How Social Services Win Votes in India*. Cambridge University Press.

Thevar, S. (2020, February 07). Pune Smart City to rethink outsourcing consultancy services for projects. *Hindustan Times.* https://www.hindustantimes.com/cities/pun-smart-city-ltd-to-rethink-outsourcing-consultancy-services-for-projects/story-TX7pJdBEdlrzahzN3EnTvM.html

Thrift, N. (2005). *Knowing Capitalism*. SAGE Publications Limited.

Tickell, A. & Peck, J.A. (1992). Accumulation, regulation and the geographies of post-Fordism: missing links in regulationist research. *Progress in Human Geography, 16*(2), 190-218.

Times News Network. (2015, September 2). Funds no barrier as McKinsey chosen to draft smart city plan. *The Times of India*. https://timesofindia.indiatimes.com/city/pune/funds-no-barrier-as-mckinsey-chosen-to-draft-smart-city-plan/articleshow/48771722.cmshttps://timesofindia.indiatimes.com/city/pune/funds-no-barrier-as-mckinsey-chosen-to-draft-smart-city-plan/articleshow/48771722.cms

Times News Network (2016, February 24) Corporators seek SPV report in Marathi. *The Times of India*. https://timesofindia.indiatimes.com/city/pune/corporators-seek-spv-report-in-marathi/articleshow/51114367.cms

Times News Network (2017, June 27). Slum dwellers' smart houses still a dream. *The Times of India*. https://timesofindia.indiatimes.com/city/pune/slum-dwellers-smart-houses-still-a-dream/articleshow/59327492.cms

Tiwari, A. (2021, October 22). From Mumbai to Delhi, Here's a List of the Top 10 Richest Cities in India in 2021. *Indiatimes*. https://www.indiatimes.com/trending/social-relevance/top-10-richest-cities-in-india-2021-552132.html

Torraco, R. J. (2005). Writing Integrative Literature Reviews: Guidelines and Examples. *Human Resource Development Review, 4*(3), 356-367. DOI: 10.1177/1534484305278283

Townsend, A. M. (2013). *Smart Cities: Big Data, Civic Hackers, and the Quest for a New Utopia*. W. W. Norton & Company.

United Nations Department of Economic and Social Affairs. (2014). *World Urbanization Prospects*. https://www.un.org/en/development/desa/publications/2014-revision-world-urbanization-prospects.html

United Nations Department of Economic and Social Affairs. (2018). *World Urbanization Prospects*. https://www.un.org/development/desa/pd/news/world-urbanization-prospects-2018

UN Habitat & MoHUA, GoI. (2023). Smart Cities Mission, India: Localising Sustainable Development Goals. https://unhabitat.org/sites/default/files/2023/09/smart_cities_mission_web_version_low_version.pdf

Vanolo, A. (2014). Smartmentality: The Smart City as Disciplinary Strategy. *Urban Studies, 51*(5), 883–898.

Venkat, R. (2024, April 15). Yamini Aiyar on the BJP's "Techno-Patrimonial" Welfare Model. *CASI Election Conversations 2024.* https://casi.sas.upenn.edu/iit/election-conversations-2024-rohan-venkat-yamini-aiyar

Venugopal, R. (2015). Neoliberalism as concept. *Economy and Society, 44*(2), 165-187. http://dx.doi.org/10.1080/03085147.2015.1013356

Vogelpohl, A. & Klemp, F. (2018). The creeping influence of consultants on cities: McKinsey's involvement in Berlin's urban economic and social policies. *Geoforum*, *91*, 39–46. https://doi.org/10.1016/j.geoforum.2018.02.028

Waghmore, S. (2012). Beyond Depoliticization? Caste, NGOs and Dalit Land Rights in Maharashtra, India. *Development and Change*, *43*(6), 1313–1336. https://doi.org/10.1111/j.1467-7660.2012.01801.x

Weinstein, L. (2014). 'One-Man Handled': Fragmented Power and Political Entrepreneurship in Globalizing Mumbai. *International Journal of Urban and Regional Research, 38*(1), 14-35. https://doi-org.ezproxy-prd.bodleian.ox.ac.uk/10.1111/1468-2427.12040

Weinstein, L., Sami, N. & Shatkin, G. (2014). Enduring Legacies and Emergent Political Actors in Contemporary Urban India. In G. Shatkin (Ed.), *Contesting the Indian city: Global Visions and the Politics of the Local*. Wiley-Blackwell.

White, J. M. (2016). Anticipatory logics of the smart city's global imaginary. *Urban Geography, 37*(4), 572-589, DOI: 10.1080/02723638.2016.1139879

Wilcox, W. (1965). Politicians, Bureaucrats, and Development in India. *The Annals of the American Academy of Political and Social Science, 358*(1), 114-122. https://doi.org/10.1177/000271626535800113.

Williams, P. (2021). Making the "smart heritage city": Banal Hinduism, beautification and belonging in "New India". In I. Keul (Ed.) *Spaces of Religion in Urban South Asia* (pp. 160-175). Routledge.

Wilson, S. L. (2022). *Social Media as Social Data Science*. Cambridge University Press.

Yin, R. K. (2003). *Case Study Research, Third Edition*. SAGE Publications Inc.

Yin, R. (2010). Analytic Generalization. In Albert J. Mills, G. Durepos, & E. Wiebe (Eds.), *Encyclopedia of Case Study Research*. (pp. 21-23). SAGE Publications, Inc.