UCL

Learning from small cities

Governing imagined futures in India's smart urban age

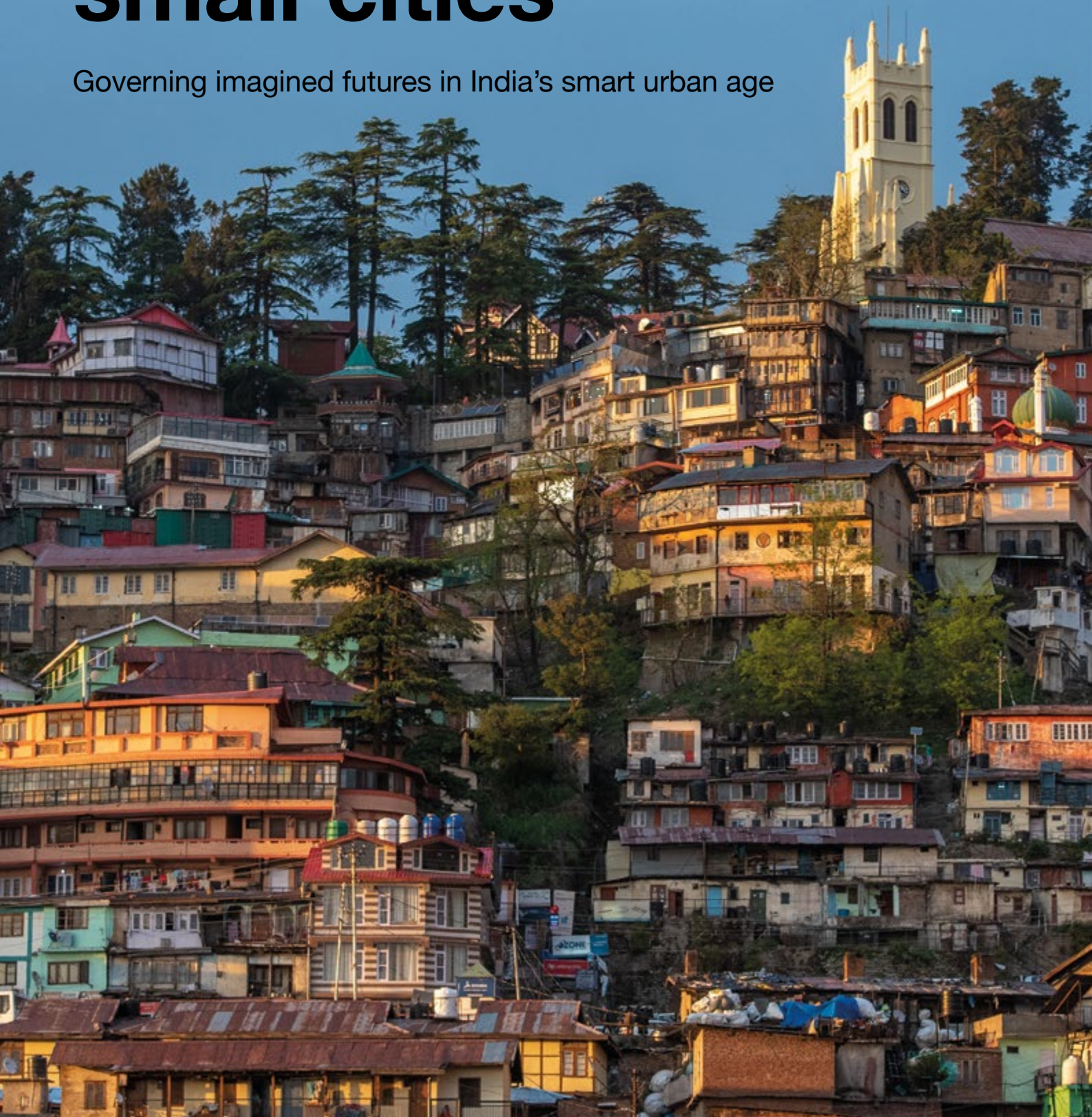


PHOTO: © ROHIT MADAN

Acknowledgements

This report would not have been possible without the support, dedication and the time offered by the various stakeholders in government, private sector, and civil society as well as residents in Nashik, Jalandhar and Shimla in answering our questions, contributing to the Map my Assets (MMA) App and participating in the Community Asset Mapping (CAM) workshops.

In particular, we would like to thank officials in the Shimla, Jalandhar and Nashik Municipal Authorities and officials in the Smart City Cells for sharing their knowledge and information about the progress of the Smart City projects in their city. We would also like to thank Moolbhoot Hakka Andolan in Nashik who graciously supported us in organising the CAM workshops in the city. We are also grateful to Dr Bharat Gadakh from KTHM College, Nashik in generously sharing his GIS data for mapping the city.

Thanks to our Field Research Assistants (Varun Patil, Shilpa Dahake, Mahima Taneja) for their hard work in data collection and organising the CAM workshops. Thanks to Anwesha Aditi, Research Assistant who provided invaluable support towards project administration, report writing and designing the infographics. Special thanks to Marta Koch, Administrative Officer in the early days of our project (2018-2019), for going above and beyond her call of duty in providing overall support in project budgets, dissemination, and engagement. Kristabelle Lumbatobing, who took over from Marta from 2019-2020 was stellar also in supporting the project administration and social media dissemination.

We thank our Post-Doctoral Research Associates (Dr Srilata Sircar and Dr Philip Nicholson) for their contribution to various aspects of this project including data collection, analysis, and dissemination of findings.

We thank the academic institutions of the PI and CoIs for their support of this project: University College London, King's College London (2018-2019); University of Birmingham; Birkbeck, University of London; and Institute of Economic Growth, Delhi.

We are grateful to our Advisory Board – Prof. Ursula Rao, Dr. Jaideep Gupte and Ana Brandusescu for their continued support and valuable feedback throughout this project.

Finally, we are grateful to the Economic and Social Research Council (ESRC) and Newton Fund, UK and their partner – Indian Council for Social Science Research (ICSSR) for generously funding this project as part of the ESRC-ICSSR 'Urban Transformations' Programme.

List of Contents

List of images

List of Figures

List of tables

List of acronyms

ABD	Area Based Development
AMRUT	Atal Mission for Rejuvenation and Urban Transformation
CAA	Constitutional Amendment Act
CAM	Community Asset Mapping
CEO	Chief Executive Officer
CSO	Civil Society Organisation
DPR	Detailed Project Report
ICCC	Integrated Command and Control Centre
ITMS	Intelligent Traffic Management System
GIS	Geographic Information System
JNNURM	Jawaharlal Nehru Urban Renewal Mission
MC	Municipal Corporation
MoUD	Ministry of Urban Development
MMA	Map My Assets
NGT	National Green Tribunal
PMC	Project Management Consultant
PPP	Public-Private Partnership
RWA	Resident Welfare Association
SCM	Smart City Mission
SCP	Smart City Proposal
SPV	Special Purpose Vehicle
STP	Sewage Treatment Plant
ULB	Urban Local Body

Executive Summary

PHOTO: © ROHIT MADAN

Overview

Small cities in India have become test beds for experiments in futuring. This report shares key findings from the ESRC-Newton research project *Learning from Small Cities* which sought to uncover the complexities of imagining, governing and living with smart urbanism. From 2018-2021 our research team from the UK and India collaborated to critically learn from small cities through an in-depth, qualitative investigation into the everyday articulations, infrastructures and assets of smartness. We selected three cities as case studies – Jalandhar, Shimla and Nashik – given their involvement in India's national 100 Smart Cities Mission and unique positioning socially, culturally, economically and geographically. At the time of case study selection, all cities were undergoing city-wide retrofitting and area-based improvements to different degrees with a focus on digital technologies and infrastructures. The project sought to address a gap in knowledge around the role that small cities can play in delivering on the challenges of India's urban age and to critically explore futuring on the ground.

Why small, why smart?

Our focus on small cities was a move away from 'best practice' examples and 'pilot projects' of smart urbanism to get closer to the realities of smartness on the ground – and to critically appreciate the specific social, cultural, political and historical contexts of smallness that have tended to keep such cities off the map of urban studies. The project was designed to operate at three scales, the national, the city and the citizen. At the national scale, we asked how and why state visions of futuring were directed towards small cities and their local imaginations. At the city scale, we sought to understand how small cities imagined their own futures within the national rhetoric; how small cities innovated by championing their own assets. Then at the everyday scale, we were interested in how citizens lived with the changes happening in their cities. The report and project outputs use the interconnected lenses of *Governing, Imagining and Living* to present data and findings on how the realities of smartness are complex and contested at diverse scales.

The research methodologies

We deployed a range of interdisciplinary, qualitative, digital, visual and participatory methodologies to learn from small cities. Our methods included *GIS mapping* where we used public data to trace urbanisation trends in each of the case study cities and identify infrastructural transformations in the context of wider economic, social and political change – in essence a longitudinal mapping of physical and social transformations.

This data collection set the groundwork and context for our deeper research in each case study city. *Interviews* with a whole range of actors involved in the political and everyday articulation of smartness were conducted (80 interviews in Nashik, 96 in Jalandhar and 61 in Shimla). This included interviews with state, city authority, civil society leaders and local residents all of whom were involved in some way with the conceptualisation, consultation, implementation, execution and lived experience of Smart City policies in each of our case study cities. To supplement this data, two further methodologies were used to explore the everyday realities of smart infrastructures and governance. First, in each city, the team led a *Community Asset Mapping workshop* to more fully understand how residents valued both tangible assets (i.e. physical infrastructures) and intangible assets (i.e. cultural heritage and memory) and their cities and neighbourhood were undergoing rapid transformation. Residents were also asked to participate in Map My Assets, a digital tool designed to collect audio-visual data on existing city and neighbourhood assets that they valued in their city. Data was then uploaded to a digital mapping tool and integrated with the other GIS mapping data to create visual representations of living with smart urban futures.

Key findings:

Imagined urban futures

A core feature of imagined urban futures in small cities is that of order and cleanliness. This is an imagination that has also been replicated historically from colonial planning documents to the postcolonial masterplanning and development. Its latest iteration is the transformation into Smart Cities of the future through a range of *city-wide* and smaller *Area-Based Development (ABD)* projects. Smart imaginations were articulated through city-wide *urban infrastructure* projects (see for example, the Smart Road project in Nashik or Smart Junction project in Jalandhar); *replicable lighthouses*, privileging certain areas for development (see for example Goda Ghat in Nashik; Burlton Park sports complex in Jalandhar; and Lower Bazaar in Shimla); *retrofitting* and *redevelopment of dilapidated areas* (see for example Krishna Nagar in Shimla) that is associated with the cleaning up and sanitising of space.

Our research found that in each city, the *Area Based Development (ABD)* approach privileged certain areas over others, based on their potential to maximise economic 'assets' in the future. With the layering of our data, we found that these areas are the oldest neighbourhoods in the city – labelled by the municipality as 'congested' and 'unsanitary' – historically often earmarked for demolition in colonial planning documents and Gazettes. These imaginations of redevelopment therefore are not new, they have just been re-branded as smart.

Overall, the future of small cities was imagined by the state (federal and local) in terms of monetisable, manageable and standardisable assets. However, there was a distinct lack of agency and choice on the part of citizens. Our research found that citizens were expected to adapt and fit seamlessly into this imagined smart urban age. Much weight was put on *smartness as a civic duty* of citizens with an emphasis on the role and responsibilities of the 'smart citizen'. However this passive idea of citizenship embodied in the Smart City imaginary was challenged across civil society organisations that sought to realign the top down economistic notion of assets towards valuing intangible, religious, historic and cultural assets (festivals, buildings, natural resources) often neglected in Smart City projects.

Governing urban futures

Governance of small cities at a national scale evoked a strong sense of *competitive resource allocation across cities*. The federal government released funds for 'smart projects' based on continued performance of each city against the Smart Cities mission criteria. This has had the result of i) pitching cities in constant competition with each other; and ii) a focus on short term deliverables at the detriment of longer term, sustainable endeavours. At the city scale, the Smart Cities mission was governed via new legal and regulatory frameworks of the *Special Purpose Vehicle* (SPV) that sought to bypass Constitutional provisions for decentralisation and autonomy of urban local governments.

Our research found that the *SPV model is often at odds with local democracy*, leading to several challenges from elected representatives. Across our case studies, we found that the *SPV model has been locally negotiated, leading to marked disparities in governance structures*. We also found that in real terms, *the absolute power of the SPV in local decision making and actioning projects is somewhat diluted*, indeed, adding rather than removing layers of bureaucracy. Finally, *digital technology was seen as a significant tool of governance at all levels of the state*. Each of our cities have embarked on a large-scale digitisation initiatives. Technology was being used to manage urban infrastructures and citizens via the construction of Integrated Command and Control Centres (ICCCs) with potential for real-time monitoring and surveillance. The implementation and commissioning of this technology for the most part was complex and long drawn, with issues of compliance, competence and relevance continuously tested at street level.

Living with the future

Most of the urban transformations in the small cities impacted unevenly on those whose lives and livelihoods were entwined with local street economies. Slum dwellers, hawkers, street vendors and small-time entrepreneurs were disproportionately affected by Smart City developments as most of these projects did not value local street economies as assets for the future.

The rebranding of earlier slum clearance and city beautification projects as Smart City projects in many cases has created new struggles for those who are already marginalised. Our findings reveal the political and emotive nature of living with these changes in small cities. Our participants experienced different forms of precarity – *eviction anxiety, loss of livelihoods, insecurity of housing tenure as well as loss of religious and cultural heritage, natural resources, and green spaces*. Smart City plans for redevelopment of a low-income settlement along Shimla's hill slopes has increased *eviction anxiety* among residents who have been living with the precarity of landslides and earthquakes for four generations. In the historic market of Lower Bazaar, Shimla local traders and businesses were convinced of the implausibility of commercial redevelopment under Smart City plans. In Jalandhar and Nashik, vendors and hawkers along the Smart Junction and Smart Road projects respectively spoke about *trading against all odds*, in the context of a looming threat of displacement. For middle class residents in Jalandhar, *loss of green space* due to a Smart Sports hub was raised against concerns of pollution, health and liveability.

Our research also revealed gains made by vibrant civil society organisations in smaller cities through lengthy campaigns and legal challenges. Smart City projects that neglected tangible or intangible local assets were subject to increased pushback from ordinary citizens. In Jalandhar and Shimla, the Smart City projects were substantially redesigned or stalled after rulings from the National Green Tribunal (NGT). In Nashik, campaigning from religious leaders and local environmentalists pressured the Municipality to initiate *de-concretisation of the Godavari riverbank*, thus revealing the ancient riverbed and natural springs. Our asset mapping workshops with stakeholders and residents celebrated this vibrancy of local democracy and revealed that there was an overwhelming need among citizens to prioritise the repair and maintenance of existing infrastructures – embedding them in local economies, cultures, traditions, people, and places.

What can we learn from small cities?

a) *The idea of the 'Smart City' is varied and diverse in local contexts, since 'smart' often means 'doing things better' for ordinary citizens.* Digital is not a silver bullet to fix all urban 'problems'. Urban local bodies need to be sensitised to the varied meanings of being and becoming smart through the everyday struggles of ordinary citizens living with change on ground.

b) *Sensitise urban local bodies towards the value of everyday local street economies.* Our research finds that urban local bodies are removing vibrant street economies and sanitising public spaces by using the framework of smart infrastructures. We recommend that direct channels of communication are made with local communities and labour organisations to negotiate these changes, for the benefit of all.

c) *Focus on small scale repair and maintenance of existing infrastructures rather than initiating new largescale, citywide infrastructure projects.* While small scale repair work might sustain and maintain lives and livelihoods that are already precarious, large-scale projects run the risk of increasing the struggles and precarity of marginal citizens.

d) *Focus on the connections between local ecologies and religious/cultural/built heritages to address environmental sustainability from ground up.* Local ecologies of smaller cities built around rivers, urban green spaces and natural landscapes are often the collateral of top-down visions. Focussing on sustainability from these smaller scales and sites would create more healthy and liveable cities.

e) *Recognise the small city itself as an asset that offers the possibilities of healthy, liveable, and sustainable lives and livelihoods*. Tangible and intangible local assets (such as riverbanks, local markets, migrant housing, and local green spaces) go beyond their economic value in creating the small city as an attractive place for marginal and middle-class citizens alike. These ordinary assets should be recognised as everyday basic, human rights for all.

Further resources:
Please see the range of outputs generated from our project including: blogs, storymaps, animations, exhibition, conference and forthcoming papers in our project website: **www.smartsmallcity.com**

1. Learning from Small Cities

This report presents findings from *Learning from Small Cities,* an international research collaboration (from 2018-2021) between Indian and UK academic partners. It sought to learn how small cities in India that are undergoing rapid and radical urban transformations, reimagine and realise their urban futures in a digital age. Moving away from the earlier focus on metropolitan cities in the global south, it shifts our attention towards the much neglected but dynamic context of 'small cities' that are now the frontiers of planetary scale urbanisation. The report uses the interconnected lenses of *Governing, Imagining and Living* with urban futures to critically examine how small cities have become testbeds of India's urbanisation and how the realities of living with change are complex and contested on ground. The report presents how urban authorities translate state imaginations of smart urban futures into 'actually existing'[1] Smart Cities, how ordinary citizens in these cities live with the dynamics of these changes, how they reimagine 'smart' from the ground up, and how this combined knowledge might be mobilised towards more sustainable smart urban futures.

The report uses a framework of 'Learning' as both an outcome and process of change in cities. Three small Indian cities are the focus – Shimla, Jalandhar and Nashik – these cities are used to explore the diversity of smart initiatives by the state and their impacts on ordinary citizens of these cities. This is because global urban policy has tended to focus on 'Best Practices' and 'Pilot Projects' and rarely on the processes of urban change. This approach has largely bypassed in-depth examinations of 'dispossession, deprivation and struggle generated and entrenched in the unequal distribution of resources and the precarious life conditions'[2] that are historically seen in small cities. Our report focusses on **critical learning, which occurs as a result of transformations in human capacities and routines set in both formal and informal regimes of planning and governance.** Critical learning and knowledge emerge as cities and citizens experiencing ongoing and sweeping changes ask the question **'what is our future and who has the power to shape it?'**

Four questions guided our research:

How and why do small cities become the testbeds of state imaginations of India's urban future?

How do citizens of small cities 'live with change' induced by Smart City initiatives?

How do urban authorities in small cities translate state imagined urban futures into 'actually existing' Smart Cities?

How can we 'learn' from small cities to inform thinking and doing urban policy?

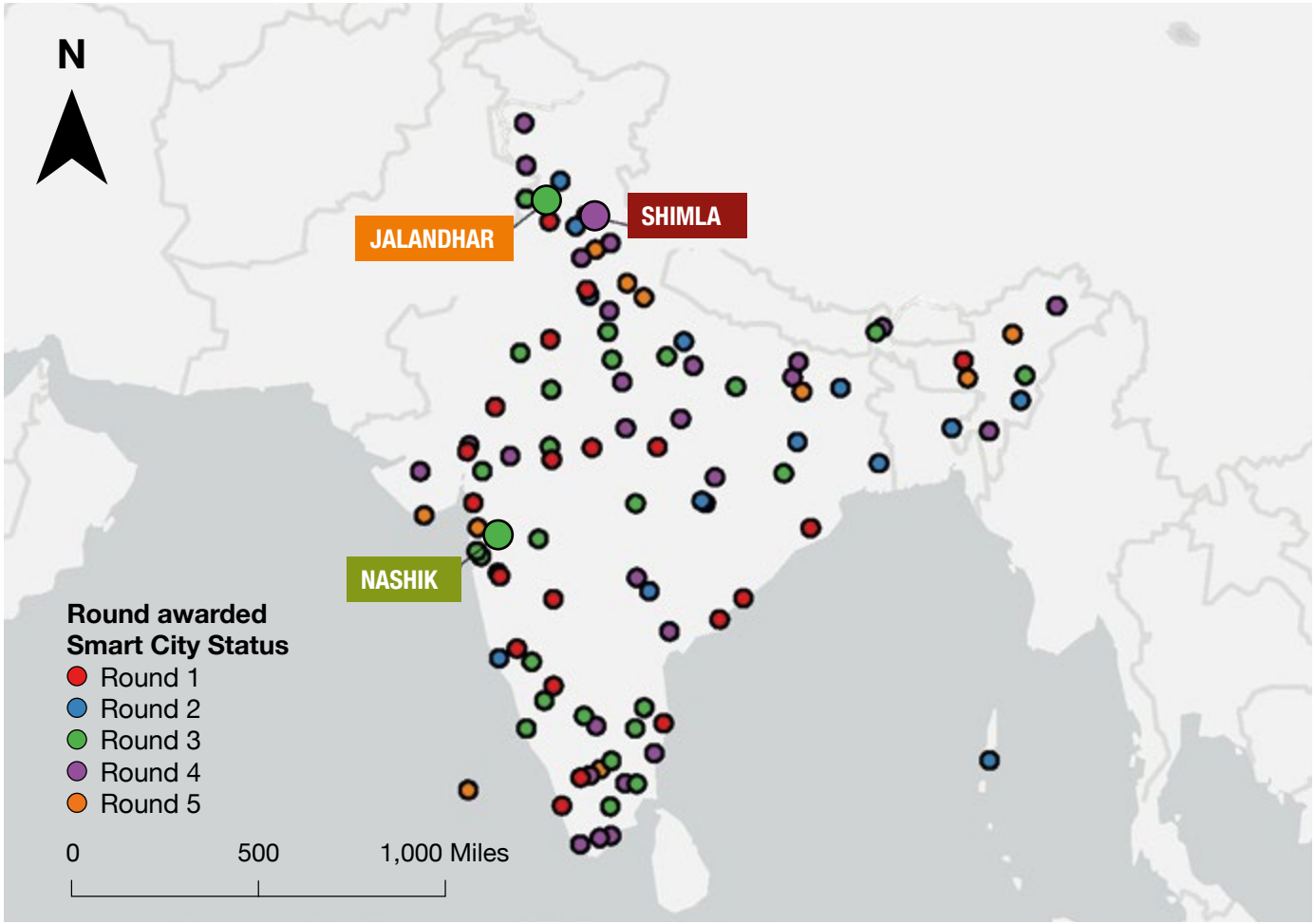
1.1 Transforming small cities into 100 Smart Cities

India's focus on cities as engines of economic growth in the last two decades[3], has induced rapid urbanisation and radical transformations in its small cities[4]. These small cities are what Barbara Hariss-White has labelled as 'middle India'[5] – cities that 'fall between the cracks of macro-economic analysis, sectoral research and micro-level ethnography'. Small cities and towns have traditionally serviced urban consumers, acted as national trade centres, supported global manufacturing processes, and served as regional administrative nodes[6]. Some small cities are now becoming significant sites of urban experimentation and transformation, having seen accelerated population growth in recent they continue to be associated with weak democratic institutions, poor urban infrastructures and with 'no future' in 'quality of life, opportunities for growth and basic dignity'[7]. These small cities present a double gap in our knowledge of urban futures since a) there is uncertainty around the role that they will play in delivering the challenges of India's urban age, and b) there is a gap in understanding how their rapid urbanisation will impact on social and material inequalities on ground. **This report fills a significant gap in understanding the diversity and dynamics of change in small cities as national urban policy drives transformations towards Smart Cities in the future.**

India's small cities exist within a nomenclature of size, which determines their pathways to urban futures[8]. While eight metropolitan cities (such as Delhi, Mumbai, Pune) are classified as Tier 1 or X cities (population >3 million), there are another 104 Tier 2 or Y cities (Population = 1-3 million) and the remaining are Tier 3 or Z cities (population < 1 million)[9]. Tier 2 and 3 cities in particular face a myriad of challenges, including rapid urbanisation, rural-urban migration and increased demands on resources and infrastructure provision.

In India, solutions to the challenges facing its smaller cities and towns were imagined in 2015, when the Government of India unrolled its 100 Smart Cities Mission[10] – a flagship urban development programme to 'drive economic growth and improve the quality of life by enabling local development and harnessing technology as a means to create smart outcomes for citizens'[11]. A majority of the selected 100 Smart Cities in India are cities with populations less than 3 million

Figure 1.1: The 100 Smart Cities In India (showing three case study cities). Map Source: ESRI



(see Figure 1.1). This is evident in the numbers: 42 of the 100 current Smart City proposals are in India's Z cities (population < 1 million) (Indian Census 2011)[12], while another 54 are in Y cities (1-3 million population). It shows that there is a radical shift from earlier economic growth strategies vested in mega-cities as 'champions of urbanity'[13] in the last two decades, to more centralised state visions of urban futures targeting 'small' cities that were historically left behind. This nationwide policy for urban transformation imagines an urban future where Information and Communications Technologies (ICT) driving centralised public services for predictive and real-time responses, becomes the new 'normal' for imagining, governing and living in the future city[14]. **Yet, there remains increased uncertainty about the sustainability of highly centralised Smart City technologies and infrastructures of planning and governance given the continued challenges of data scarcity, broken, incomplete or improvised infrastructures in small cities.**

The Smart Cities Mission paves the way for cities to mobilise their existing strengths and opportunities towards enhancing physical and digital infrastructures for improved service provisioning. Although the 100 cities were nominated across regional states, federal funding for each city followed a scoring criterion outlined in the guidelines and based on factors like existing levels of infrastructural services, fiscal health, potential for revenue generation, and capacity for fund-raising. The nominated cities were then invited to submit proposals for successive rounds of competitive funding allocations. In total, the competition took place over five rounds.

The Mission Statement and Guidelines[15] document published by the Ministry of Urban Development describes a Smart City in the following broad terms:

1. digital infrastructure and the adoption of digital technology in everyday life; and

2. placing people and communities at the starting point of Smart City interventions.

PHOTO: © ROHIT MADAN

Image 1.1: Housing in Krishna Nagar, Shimla

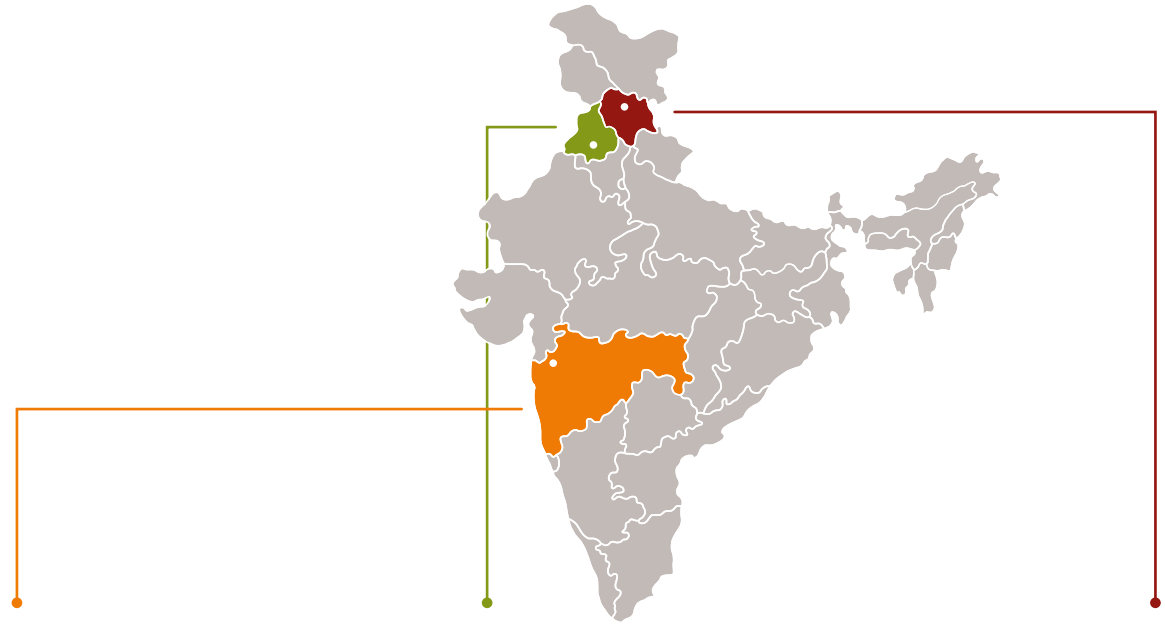
There are wide variations in terms of area covered and budget allocated to the different kinds of projects across the nominated Smart Cities. As the table below demonstrates, the three case study cities in our report exemplify this diversity.

The Nashik and Jalandhar Smart City proposals were funded under the third round of competition (announced September 2016), while Shimla Smart City proposal was funded in the fourth round (announced June 2017) (see Figure 1.1). Nashik, the largest of three cities with a population of 1.5 million, and a secondary city within the regional state of Maharashtra often overshadowed by larger urban economies of Pune and Nagpur. Jalandhar with a population nearing 870,000 is also overshadowed by its larger neighbours like Ludhiana and Amritsar within the regional state of Punjab. Shimla, the smallest city at a population below 200,000, is the capital of the regional state of Himachal Pradesh also overshadowed by its neighbouring city of Chandigarh. See Image 1.1 for an overview and key facts on these cities.

Table 1.1: Distribution of proposed budget in case study cities. Compiled by research team from public sources

City (Population)	Proposed ABD projects budget	Proposed area under ABD projects[16]	Proposed Pan-city projects budget	Proposed Greenfield project budget	Proposed area under Greenfield project
Nashik (1.5 million)	INR 592 cr (~£592.91 lakh)	3.7 sq. km	INR 324 cr (~£324.59 lakh)	INR 359 cr (~£359.74 lakh)	100 acres
Jalandhar (865,000)	INR 1485 cr (~£148.92 lakh)	4 sq. km	INR 257 cr (~£257.65 lakh)	–	–
Shimla (170,000)	INR 2533 cr (~£254.02 lakh)	1 sq. km	INR 197 cr (~£197.49 lakh)	–	–

Figure 1.2: Case study city profiles. Compiled by research team from public sources



NASHIK (MAHARASHTRA)

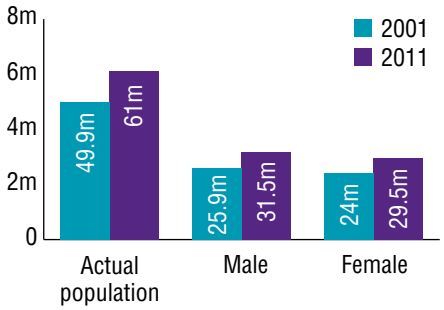
Nashik city profile:

- Heritage city which hosts the 12 yearly ***Kumbh Mela Hindu Pilgrimage***.
- Nashik is known as the ***'wine capital'*** of India.

Challenges faced:

- Reconciling tangible and intangible heritage with 'its' futuring (tourist base for exploring ***India's only vineyards***).

Demographic characterisitics



Sex ratio

Population growth

29.66% (2001)
22.30% (2011)

JALANDHAR (PUNJAB)

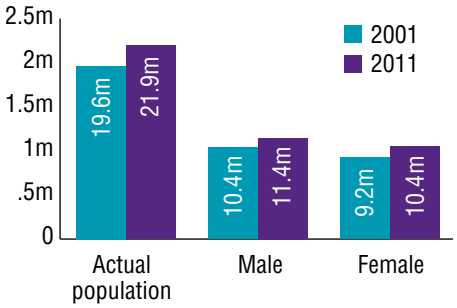
Jalandhar city profile:

- Jalandhar - the leading ***sports and manufacturing hub*** in Asia.
- Confluence of different communities who have ***migrated there from across India***.

Challenges faced:

- City has been transformed by large scale ***infrastructure projects*** and associated ***environmental pollution***.

Demographic characterisitics



Sex ratio

Population growth

18.96% (2001)
11.76% (2011)

SHIMLA (HIMACHAL PRADESH)

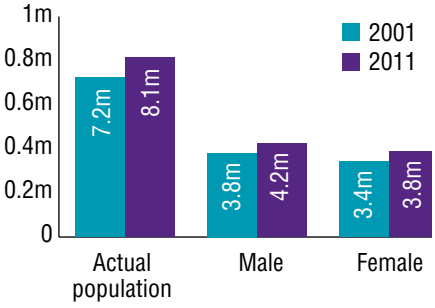
Shimla city profile:

- Traditional ***hill town*** in the Himalayas.
- ***Summer capital*** of British colonial government.

Challenges faced:

- ***Increased tourism*** alongside influx of migrant labour.
- Environmental consequences of ***overdevelopment***.

Demographic characterisitics



Sex ratio

Population growth

17.02% (2001)
12.67% (2011)

1.2 Methodology

Our methodology (see Figure 1.3) investigates the overarching diversity of city-based challenges across three interlinked scales: first, at the scale of the state, it examines how aspirational urban futures are translated into Smart City policies; second, at the city scale, it examines how the city learns by translating these visions into smart technology and infrastructure projects, and third, at the scale of ordinary citizens, it examines how citizens learn to live with the everyday 'dynamics of change'.

GIS mapping of infrastructure and demographics

We traced urbanisation trends in the case study cities using public data available from the Census[17], Municipal archives, think tanks and Smart City consultants to contextualise the cities within historic and contemporary change. Geographic Information System (GIS) mapping of this data identified economic, social, and political indicators (e.g., economic growth, employment, population, infrastructure, quality of life), infrastructural transformations (expressways, public transport, urban basic services, digital technologies) and Smart City project impacts to provide the backdrop for the data obtained from other methods (Community Asset Mapping, Map My Assets and interviews).

Community Asset Mapping[18]

Taking an asset-based approach to infrastructure access and provision, we conducted mapping through a series of face-to-face Community Asset Mapping (CAM) workshops in each

Figure 1.3: Project Methodology. Compiled by research team

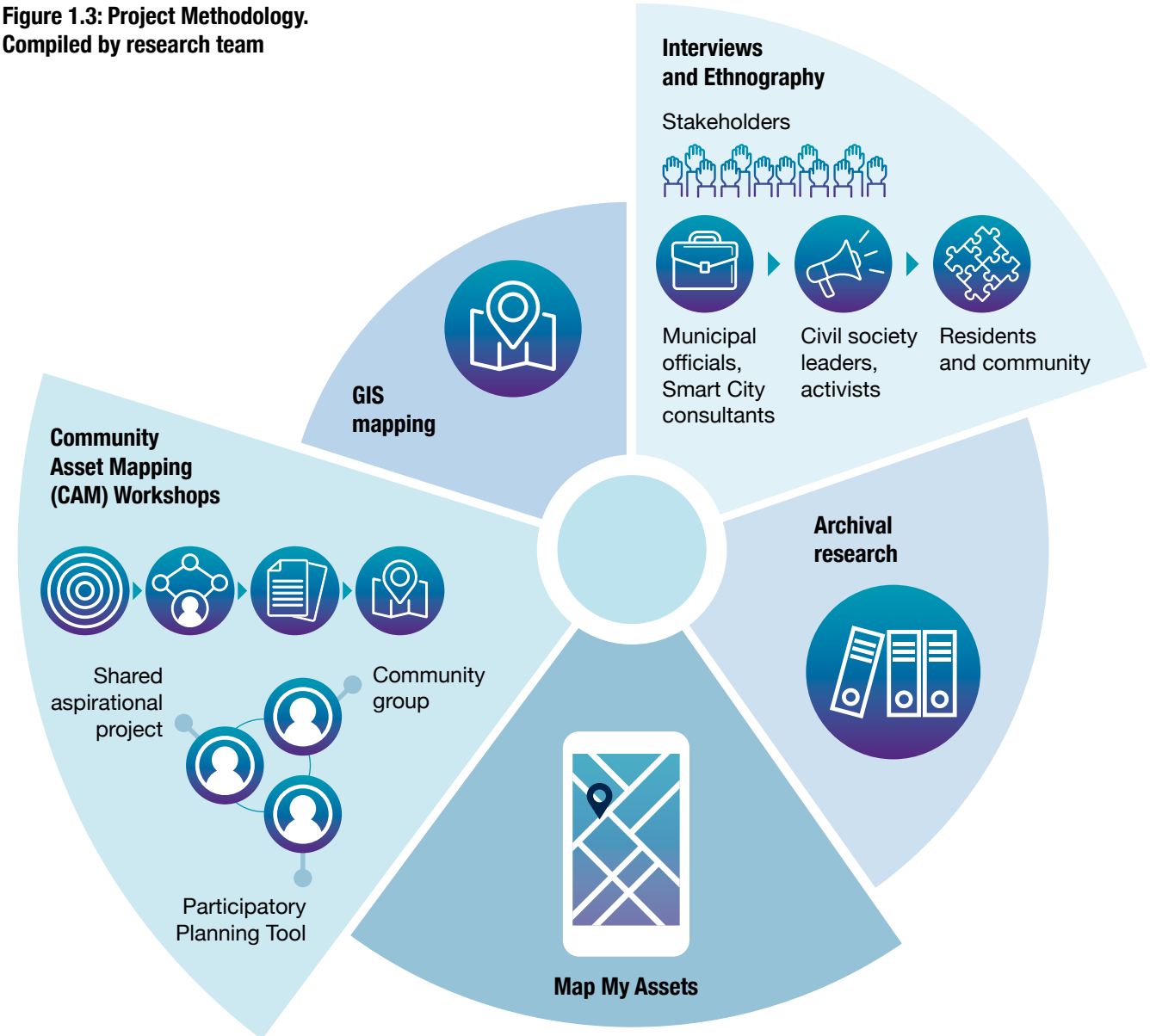
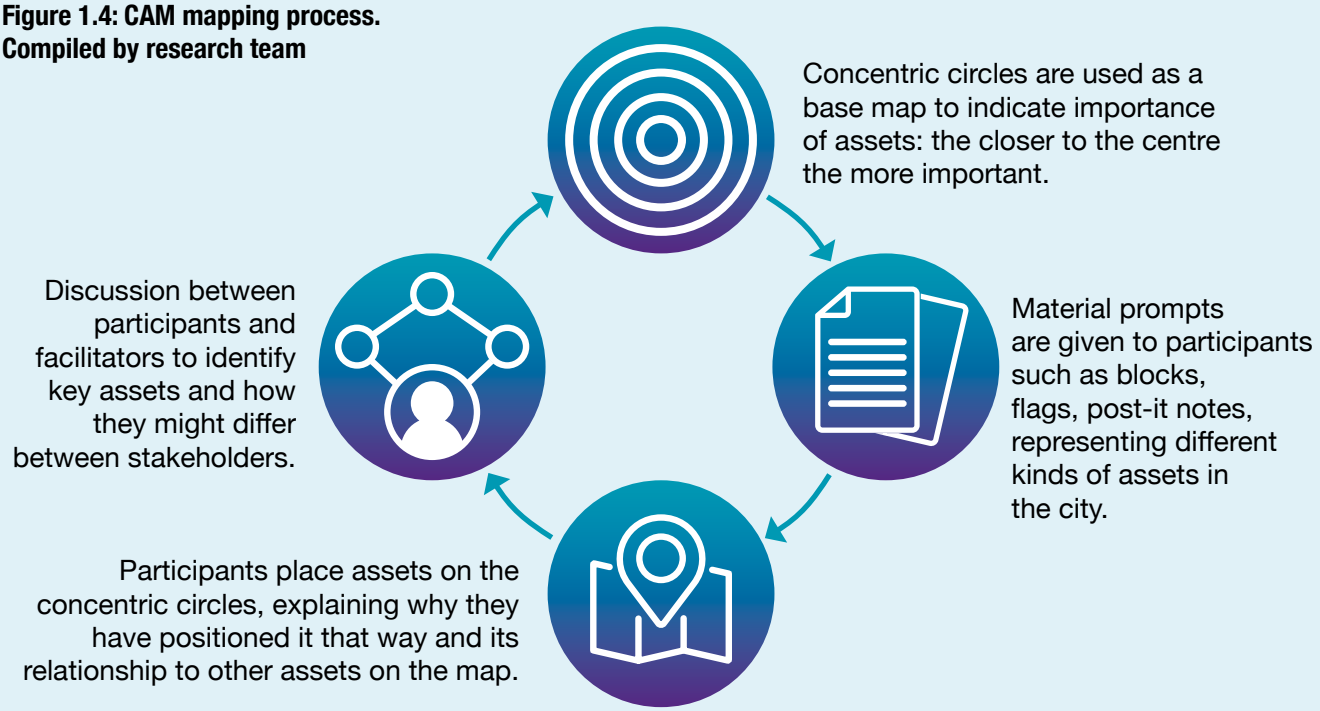


Figure 1.4: CAM mapping process. Compiled by research team



city. In CAM, a schematic map of concentric circles is used as the base map to indicate the relative value and importance of assets in the city (see Figure 1.4). The participants take turns placing their symbolic assets at different positions on the concentric circles and justifying the choice of their asset and its position on the map to the rest of the group. Each choice generates a discussion, moderated by the facilitators through follow-up questions and inputs.

Table 1.2: Interviews conducted by research team in each city by category[19].

Respondents	Nashik	Jalandhar	Shimla
Municipal officials, local politicians, and Smart City managers at the city level	7	22	9
Civil society leaders and activists at both city level and case study sites	17	8	9
Residents and businesses at the case study sites	56	66	43
Total	80	96	61

CAM identified existing assets 'on the ground' that are valued by residents, including the tangible (physical infrastructure, green spaces, public spaces etc) and intangible (eg cultural heritage, belonging, connections) assets that were either lost or were under threat in the future.

'Map my Assets' App

A digital platform 'Map My Assets' was developed from an android application in a previous ESRC-funded project (ES/K00932X/2). This platform collected crowdsourced data on existing city and neighbourhood assets that were valued by citizens. The code and architectural infrastructure for the app was developed and included survey questions and translation into three local languages (Hindi, Marathi and Punjabi). The app used locative-media to enable participants to 'check in' at particular locations, upload photographs, voice notes on the built environment. This data was uploaded onto a digital mapping tool (ArcGIS) and correlated with the GIS mapping noted above to create visual representations (maps) of living with smart urban futures.

Semi-structured interviews

We conducted interviews in each city with key stakeholders (state, city authority, civil society leaders and community residents) involved in the conceptualisation, consultation, implementation and execution of Smart City policies). (See Table 1.2). The interviews were themed on the topics of aspirations for Smart Cities, the politics of governing for smart futures and the dynamics of living with the changes on ground.

Archival research

We conducted detailed archival searches in the Shimla (see Image 1.2) and Jalandhar Municipal Records Rooms. These searches revealed proposals for urban transformations made by the Simla and Jalandhar Improvement Trusts since the late 19th century and detailed planning applications for house building since the establishment of the Municipal Corporations. We also conducted archival searches in the British Library in London which provided us with Gazettes, Guides and Colonial Census data as well as archival images and photographs.

PHOTO: © AYONA DATTA

Image 1.2: Municipal Records Room, Shimla

Chapter 1: Notes

1 Shelton, Taylor, Matthew Zook, and Alan Wiig. 'The "Actually Existing Smart City"'. *Cambridge Journal of Regions, Economy and Society* 8, no. 1 (1 March 2015): 13–25. https://doi.org/10.1093/cjres/rsu026.

2 Brenner, Neil, David J Madden, and David Wachsmuth. 'Assemblage Urbanism and the Challenges of Critical Urban Theory'. City 15, no. 2 (2011): 225–40.

3 Kennedy, Lauren, and Marie-Helene Zerah. 'The Shift to City-Centric Growth Strategies: Perspectives from Hyderabad and Mumbai'. Economic and Political Weekly Sept 27 (2008): 110–17.

4 Satterthwaite, David. 'Outside the Large Cities: The Demographic Importance of Small Urban Centres and Large Villages in Africa, Asia and Latin America'. IIED, 2006. http://www.iied.org/pubs/display.php?o=10537IIED.

5 Hariss-White, Barbara, ed. *Middle India and Urban-Rural Development: Four Decades of Change.* New Delhi: Springer, 2015.

6 Sharma, R. N., and R. S. Sandhu, eds. *Small Cities and Towns in Global Era: Emerging Changes and Perspectives.* Jaipur: Rawat Publications, 2013.

7 R. N. Sharma and R. S. Sandhu (eds.), p.5.

8 Sircar, Srilata. '"Census Towns" in India and What It Means to Be "Urban": Competing Epistemologies and Potential New Approaches'. *Singapore Journal of Tropical Geography* 38, no. 2 (1 May 2017): 229–44. https://doi.org/10.1111/sjtg.12193.

9 'Census of India'. New Delhi, India: Registrar General & Census Commissioner, 2011.

10 Datta, Ayona. 'A 100 Smart Cities, a 100 Utopias'. *Dialogues in Human Geography* 5, no. 1 (2015): 49–53.

11 'Guidelines | Smartcities'. Accessed 1 October 2021. https://smartcities.gov.in/guidelines.

12 'Census of India: List of Towns and Their Population'. Accessed 1 October 2021. https://censusindia.gov.in/towns/town.aspx.

13 Banerjee-Guha, 'Small Cities and Towns in Contemporary Urban Theory, Policy and Praxis'. *In Small Cities and Towns in Global Era: Emerging Changes and Perspectives,* edited by R. N. Sharma and R. S. Sandhu, 17–35. Delhi: Rawat Publications, 2013.

14 Datta, Ayona. 'Postcolonial Urban Futures: Imagining and Governing India's Smart Urban Age'. *EPD: Society and Space* 37, no. 3 (2019): 393–410.

15 GoI. 'Smart City Mission Statement and Guidelines'. New Delhi, India: Ministry of Urban Development, Government of India, 2015. https://smartnet.niua.org/content/2dae72ca-e25b-4575-8302-93e8f93b6bf6.

168 These are figures proposed in the Smart City plans. The actual area where ABD projects are under implementation may vary based on contextual circumstances.

17 Census of India 2011 was the 15th Census which is being conducted in India since 1872 and 2011 marks the first-time biometric information was collected. The Census Operations in India are carried out in two phases – the House listing and Housing Census followed by the Population Enumeration. https://censusindia.gov.in/2011census/HLO/Metadata_Census_2011.pdf.

18 This CAM model is adapted from the work of Dr. Katerina Alexiou and Dr. Theo Zamenopoulos, The Open University.

19 All data collection was carried out in line with our institutional ethics approvals and ESRC ethical principles and all data was collected pre-pandemic (before January 2020).

2. Imagined Urban Futures

The predominant urban imaginary associated with the 100 Smart Cities Mission was a city free of the challenges that Indian small cities face (chronic congestion; poor sanitation; environmental degradation; lack of access to public services; inequality and poverty) and was replicated in the aesthetics of order and cleanliness embedded in the visual representations developed along with city proposals. Certainly, such urban imaginaries are not isolated in time but draw on a long trajectory of urban development policies from the colonial period to the present.

State visions of urban futures free of current challenges made specific 'assets' in small cities worth incubating. These assets were largely defined through an economic imperative, but with cities being able to develop their own unique identity.

> **"Giving an identity to the city – based on its main economic activity, such as local cuisine, health, education, arts and craft, culture, sports goods, furniture, hosiery, textile, dairy, etc;"[1].**

This imagination of a unique urban identity for each of the 100 Smart Cities was supported by a rhetoric for accommodating local histories and contexts that also gave some substance to the open definition of what a 'Smart City' actually is as outlined in the Mission guidelines.

> **"…. 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. A Smart City would have a different connotation in India than, say, Europe. Even in India, there is no one way of defining a Smart City."[2]**

2.1 Smartness as Civic Duty

The 100 Smart Cities Mission placed considerable weight on citizen consultation through the idea of 'smart citizen'. The Mission Guidelines document summarises this as:

> **"The Smart Cities Mission requires smart people who actively participate in governance and reforms. Citizen involvement is much more than a ceremonial participation in governance. Smart people involve themselves in the definition of the Smart City, decisions on deploying Smart Solutions, implementing reforms, doing more with less and oversight during implementing and designing post-project structures in order to make the Smart City developments sustainable."[3]**

The idea of smartness as civic duty was expressed by policy makers and consultants in interviews with us. In response to the question 'what makes a city smart', a private management consultant said:

> **"The people! No matter how many smarter technologies you give them, until they accept it and are using it in the proper way it is meant to be used, it [city] cannot be smart. Even if you get the world's best infrastructure! It will fail if people do not adhere to the rules and regulations. We should teach them more. Include it in the curriculum of the students. That is what is lacking in this country: the implementation part. The adherence part is not there."** (JI004)

Our interviews with public and private stakeholders suggest that the term 'smart citizen' was imagined as a responsibility of the ordinary citizen to 'learn' how to comply with the demands made upon them by the Smart City projects. Instead of adopting technologies[4] to reach citizens, the urban authorities expected ordinary citizens to acquire knowledge of using and living with these technologies[5]. Citizens' civic duties was framed as agreeing to share their personal data to improve the ordering and surveillance logics imagined by the Smart Cities Mission.

PHOTO: © ROHIT MADAN

Image 2.1: Wedding band practice in Burlton Park, Jalandhar

2.2 Smartness as Urban infrastructures

One of the imaginations that features prominently is that of redeveloping city-wide urban infrastructures (eg. transport, security, waste, smart meters). **Pan-city projects** involve an aspect of digital technology and cover not more than 20% of the allocated budget. While the infusion of digital technology into everyday urban management has been taking place in a sporadic manner, the Smart City Mission places this as a core agenda in pan-city projects, which are mandated to carry digital components. Key examples are projects involving installation of electronic water meters, extension of e-bill payments for municipal services, and digitisation of traffic signals.

2.3 Smartness as a replicable 'lighthouse'

Area Based Development (ABD) projects focus on a selected area within the city. ABD projects are meant to serve as 'lighthouse' models to be replicated in the future. They consist of three elements –

i) city improvement or retrofitting projects
ii) city renewal or redevelopment projects (cover an area of 50 acres or more) and
iii) city extension or Greenfield projects aimed at previously vacant areas of 250 acres or more and constitute the creation of new townships

In each city we found that the ABD approach sought to maximise economic 'assets' through the privileging of certain areas for redevelopment. Our archival searches revealed that the ABD areas are amongst the oldest parts of cities, often labelled as 'congested' and 'unsanitary' and marked for demolition even in colonial planning documents and Gazettes. The earliest Gazette entry on Jalandhar city (1881) describes its neighbourhoods as a cluster of unruly settlements that have developed without a semblance of order. The Simla Improvement Trust (SIT) report of 1917 focuses on the disorderly nature of shops and built structures in the 'Bazaar area'. In the postcolonial context of these cities, the ABD areas have been the focus of repeated planning interventions to remove and relocate street vendors, hawkers and slum dwellers working and living there. In Nashik, the historical area of Panchavati is described in the Smart City Proposal as 'narrow, congested, and dilapidated'. There are two features that make these areas amenable to ABD interventions –

i) aesthetic of the historic built environment that is at odds with contemporary imaginations of smartness; and
ii) density of population and socio-economic activity.

2.3.1 Retrofitting urban infrastructures

One of the proposed mechanisms through which a contemporary aesthetic is sought to be attained is that of retrofitting of historical areas deemed to be 'dilapidated'. This is further reinforced in the simulated pictures of 'visible improvement' through proposed interventions that display a sanitised and aestheticized version of the spaces

PHOTO: © ROHIT MADAN

Image 2.2: Old electricity and utility wires in Jyoti Chowk, Jalandhar

in focus. These are addressed through the adoption of cosmetic retrofitting projects under both ABD and pan-city approaches. For example, Smart Road projects focus on concretising tar roads for a contemporary look. In Jalandhar and Nashik's historic areas, the old electrical and utility wires (see Image 2.2) are meant to be placed underground to give a clean visual aesthetic on the street[6].

2.3.2 Redevelopment of 'dilapidated' areas

The most radical mechanism of imposing order was that of redevelopment of historic areas. Redevelopment projects are proposed in Jalandhar and Shimla with Shimla being the most ambitious in terms of scale and budget. They allow city authorities to realise a kind of *tabula rasa* standpoint that master plans tend to assume. This is however rarely plausible and the stubborn persistence of redevelopment as a planning tool points to the gap between the imagination of planners and the lived realities of people. In Jalandhar and Shimla, redevelopment projects have considerably long histories of planning that are yet to materialise. The plans have been contested and reworked on several occasions.

From the overview of planning histories in the three selected cities, a dominant theme of 'ordering', is evident across scales. This is the aspiration to manage, control, and place order upon spaces that are perceived to be unruly, unmanageable, and disorderly. The theme surfaces across policy and planning documents in each of the cities described below.

2.4 Nashik: from Kumbh city to Heritage city

Nashik is a city of 1.4 million population in the western Indian state of Maharashtra that has long been known as a site of Hindu pilgrimage. Every twelve years it hosts the Kumbh Mela – where millions of devotees gather by the banks of the river Godavari.

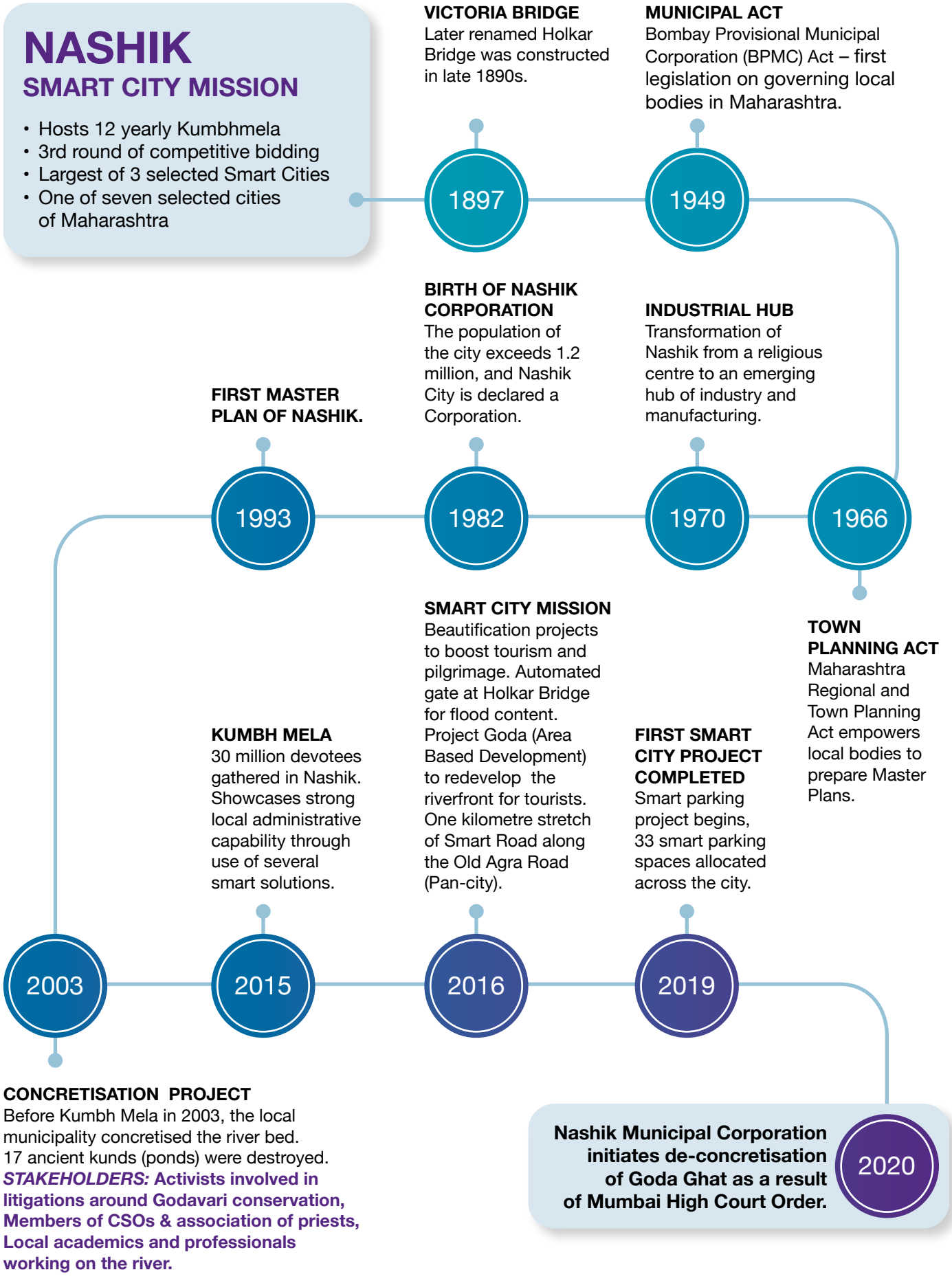
The river has remained central to the city's infrastructure projects particularly since 1954 with the construction of the Gangapur Dam to improve and stabilise the city's water supply. Since the 1960s, there has been a reorientation of Nashik's identity from a religious centre to an emerging hub of industry and manufacturing. Recently, Nashik has come to be known as the 'wine capital' of India, due to the growing wine economy in its western outskirts.

For a more detailed timeline of urban development in Nashik see Figure 2.1

PHOTO: © ROHIT MADAN

Image 2.3: Godavari riverbank (Goda Ghat), Nashik

Figure 2.1: Nashik in Historical Context. Compiled by research team



The Nashik Smart City Proposal focuses on a few strategic areas – favouring the cultural heritage of the city for revenue generation; building a resilient economy; improving mobility within the city; and improving transparency of governance. The proposal mobilises the city's industrial identity as a strength and sees this as

> **"an excellent opportunity to capitalise on given its high productivity of labour, strong industrial base, and high quality and reliable infrastructure."[7].**

It aspires to refashion the city as the next hub for IT industries following the relative saturation of resource use in cities such as Bangalore and Pune.

Considering these dynamics of urban transformations, a key theme that emerged in Nashik's imagination of the future was the negotiation of an identity that balanced the traditional with the modern. This is taken up through the closer inspection of a Pan-City and an Area-based Development project (see Figure 2.2).

2.4.1 Area-Based Development: Goda Ghat

The Godavari Riverbank (Goda Ghat) is broadly put to three types of uses: i) the temple complex and kunds [ponds], ii) daily/weekly bazaars and iii) parking areas. The main social groups using and occupying these spaces include the pilgrims, priests, security personnel appointed to guard the river against polluting activities, mendicants, vendors (selling fruits, 'indigenous' medicines and snacks), and tourist guides. There are four bazaars in the area – a fruits and vegetables bazaar, a bazaar of tattoo artists and medicinal herbs traders, a clothes bazaar, a jeweller's bazaar and a lively 'Wednesday market', trading in fresh fish. The bazaars have provided longstanding livelihoods that finds mention in the 1883 Bombay Presidency Gazette[8].

The emphasis on Godavari River and the religious economy it fosters is upheld in the Nashik Smart City proposal which lists the *"rich cultural heritage"*[9] of the city as one of its strengths and describes it as an asset that *"can spur economic development and enhance quality of life"*. It makes a case that

Figure 2.2: Nashik Smart City initiatives. Compiled by research team

SMART ROAD from Ashok Stambh – Trimbak Naka is the busiest part of the city impacting the everday lives of vendors, shopkeepers, autorickshaw drivers and pedestrians.

GODA GHAT temple and commercial complex is the prime hub of the old city. Home to a range of temples and bazaars attracting pilgrims and tourists

Source: Nashik Smart City Proposal

PHOTOS: © ROHIT MADAN

Image 2.4: The temple complex at the Goda Ghat, Nashik

Image 2.5: Disused market building constructed to relocate vendors, Nashik

the city has a strong local administrative capability due to the experience of managing 30 million pilgrims during the last Kumbh Mela of 2015. The key projects proposed as part of retrofitting efforts include: i) restoration and renovation of temple structures; ii) beautification of the riverfront, and iii) a boost to tourism through utilisation of public spaces for recreational activities.

This is not the first time that the Godavari River has been subject to redevelopment initiatives. In 2002, before the impending Kumbh Mela, the local municipality took the decision to concretise the riverbed and build steps over it in order to make the river accessible to pilgrims and prevent instances of drowning. Concrete blocked the natural ponds and aquifers, destroyed ancient shrines, and has since threatened the sensitive ecology of the river. The project faced multiple challenges from environmental activists regarding the destruction of the fragile riverine ecologies of the region as well as a sense of cultural loss around the ancient kunds (masonry ponds) that were deemed holy. It is only recently that de-concretisation has begun as a result of sustained activism by local environmentalists (see section 4.1.1 for more details).

Between 2008 and 2016, the municipality undertook further 'beautification' projects in the form of parks, walkways, boating facilities, fountain lights along the riverbanks. A key initiative was the construction of a market building (see Image 2.5) to relocate the numerous daily and weekly bazaars in a separate enclosure which was resisted by the hawkers and vendors who continue to trade by the riverbanks.

PHOTO: © ROHIT MADAN

Image 2.6: View of Goda Ghat, Nashik

Figure 2.3: Nashik Smart Road. Map Source: ESRI

2.4.2 Pan-City project: Smart Road

The Smart Road project was planned along a one kilometre stretch of an arterial road also known as Old Agra Road (see Figure 2.7).

The existing road was being retrofitted with pedestrian and bike lanes, underground electricity and network cables, and sanitation pipes. Its 'smart' features included a footpath, sitting area, cycle track, CCTV surveillance, Smart Pole, Wi-Fi, solar panel, underground electrical wiring, two-wheeler parking, e-toilet and intelligent traffic signal.

The Smart Road marks a physical demarcation between the old city neighbourhood of Panchavati in the East – once the limit of the municipal boundary – and the emerging neighbourhoods of new Nashik in the West.

The road is dotted by important landmarks and commercial enterprises (see Image 2.8). In our research, we identified three zones along the road (see Figure 2.3) where work was taking place in phases and affected the users of the space in distinct ways (Section 4.1 for details).

PHOTO: © ROHIT MADAN

Image 2.7: Smart Road, Nashik

PHOTOS: © ROHIT MADAN

Image 2.8: Commercial area along Smart Road, Nashik

Image 2.9: Smart Road construction in progress, Nashik

2.5 Jalandhar: from Emigration city to Sports city

Jalandhar is a city of 870,000 population in the north-western state of Punjab, only 100 km away from the international border between India and Pakistan. The historical and contemporary identity of the city is deeply marked by the confluence of different communities who have migrated there from across India. The partition of India in 1947 marked a watershed moment in both the geography and the demography of Jalandhar. With the arrival of a significant number of refugees from Pakistan, the city's housing and infrastructure provisions came under pressure. Construction of suitable housing units and allocation of commercial resources became the mainstay of planning activities in the immediate post-partition period. This nonetheless led to the establishment of numerous Islamic, Sikh, and Hindu shrines around the city and rendered it into a seat of religion, art, and music (see Image 2.10).

Although, Jalandhar has experienced considerable growth in education, health, and allied service industries in the last few decades, the theme of emigration dominates its landscape[10]. While its wealth based on agriculture and sports manufacturing drew people into the city from other Indian states and the rural hinterland, its more recent economic decline has seen thousands now moving out to countries abroad, predominantly Canada and the UK. One of India's highest emigration rates is from Jalandhar district where almost every person we spoke to has someone who has migrated or is trying to migrate overseas.

In 2009, the Jalandhar Master Plan 2031 highlighted the vision for an urban future, summarised in the following terms:

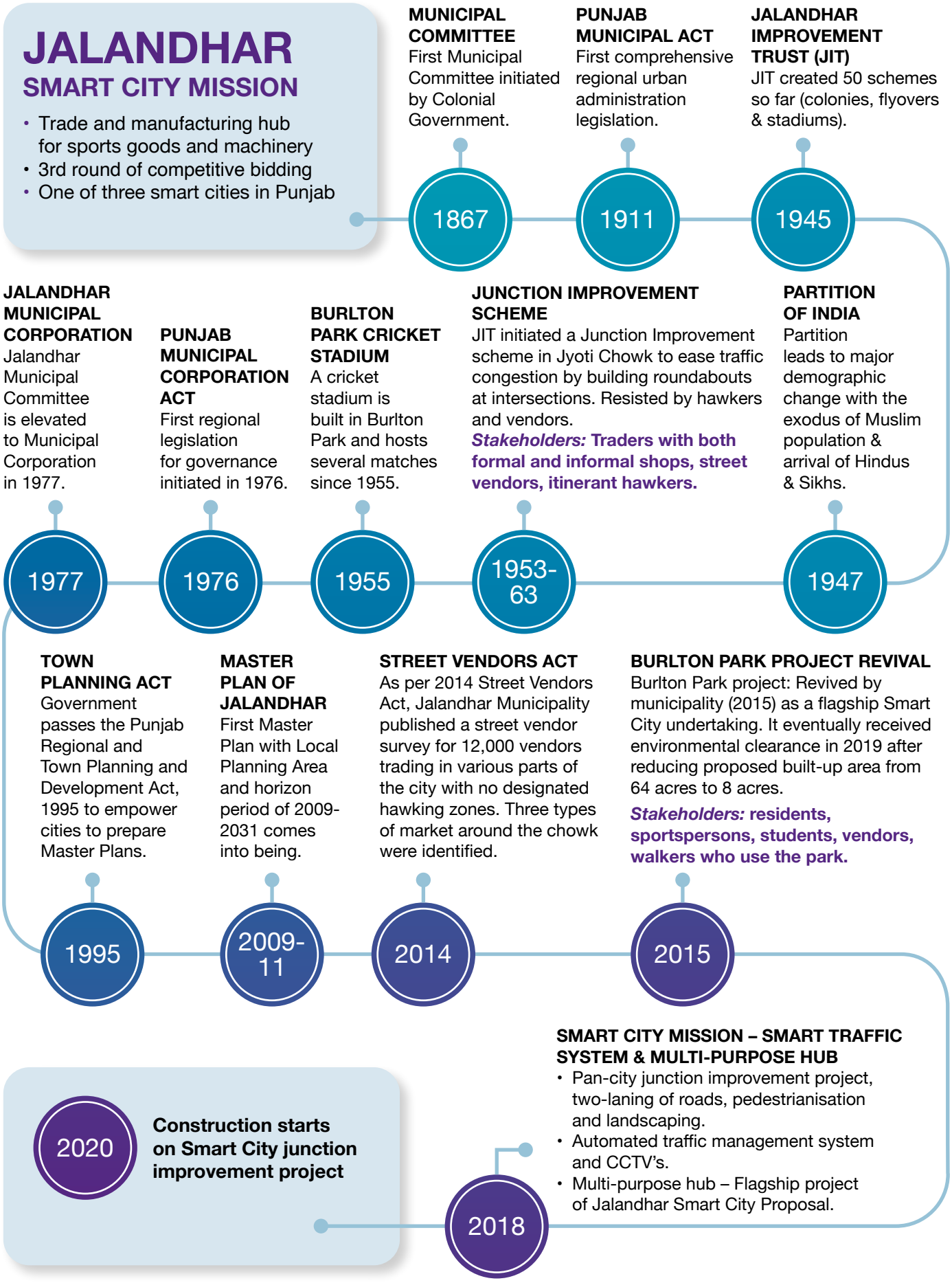
> **"To make Jalandhar an economically vibrant city with quality infrastructure and housing for all its citizens in environmentally sustainable manner achieved through effective partnership between the public, private and community sector."[11]**

For a more detailed timeline of urban development in Jalandhar see Figure 2.4

PHOTO: © ROHIT MADAN

Image 2.10: Imam Nasiruddin Mosque, Jalandhar

Figure 2.4: Jalandhar in Historical Context. Compiled by research team



The Smart City proposal for Jalandhar aims to transform Jalandhar into a leading sports and manufacturing hub in Asia establishing an urban identity for itself centred around fitness and health. The city sets for itself seven goals. It aims to be inclusive by reinvigorating city spaces, promote sports by increasing sporting venues, encouraging training and education in sports. Further it wants to expand and diversify the manufacturing-based economy and simultaneously transform from production to education, research and innovation while improving walkability.

Figure 2.5: Jalandhar Smart City initiatives. Compiled by Research Team

BURLTON PARK

70 acres of recreational green space used regularly by a wide cross section of people, and the proposed site of high-profile sports hub development.

JYOTI (VALMIKI) CHOWK

A traffic junction around which several busy bazaars have developed over the years.

Source: Jalandhar Smart City Proposal.

2.5.1 Area-Based Development: Burlton Park Sports Complex

Burlton Park is a core area of the Jalandhar Smart City plan[12]. Identified as an ABD redevelopment project, it is earmarked for a high-investment sports complex because of its proximity to existing sports infrastructure and institutions.

Archival research reveals that this area was used as a cavalry ground under the colonial regime. In the immediate post-partition period, it was used as a camp site for refugees arriving from Pakistan. In the mid-1950s, a cricket stadium was constructed at the site that continued to host international matches until the mid-1990s.

From the mid-2000s, a series of Resident Welfare Associations (RWAs) and civil society groups have taken charge of sections of the park and carried out planned interventions. This included landscaping and maintenance of various segments of the site, installation of water dispensers, benches, sheltered resting areas, and construction of children's play areas. These interventions were highly appreciated by local community members and significantly added to the asset-base for the neighbourhood.

In 2008, a cash-strapped municipality sought to generate revenue by proposing a sports complex at the site. It was to be funded through the sale of commercial space to sports goods manufacturers and other likely stakeholders such as fast-food companies. In 2013, the RWAs succeeded in obtaining a legal stay-order on the project citing destruction of green spaces. The project was revived by the municipality in 2015 as a flagship Smart City undertaking. It eventually received environmental clearance in 2019 but only after reducing the proposed built-up area from 64 acres to 8 acres.

PHOTO: © ROHIT MADAN

Image 2.11: Burlton Park entry, Jalandhar

The latest proposal left out the parks which together consist of around 12.32 acres moving instead to acquire the empty space adjoining the cricket ground: traditionally used for religious gatherings, Diwali firecracker shops and local boys to play cricket.

2.5.2 Pan-City Smart Traffic System: Jyoti (Valmiki) Chowk

Valmiki Chowk or Jyoti Chowk is the densest roundabout in Jalandhar (see Image 2.12). It is part of a Traffic Junction Improvement scheme of the Smart City proposal, which aims to reduce congestion around 11 roundabouts in the city and promote pedestrianisation by building footpaths. Often described as the heart of the city, Jyoti Chowk is surrounded by bazaars where vendors and traders dealing in items ranging from clothes to fruits set up shop every day. Under the 2018 Jalandhar Smart City proposals, this chowk is expected to get a major facelift via two projects. The first one consists of civic works to reduce congestion by installing traffic lights, improving the lane-geometry (two-laning) of the road abutting the roundabouts, pedestrianisation and landscaping. The second project is focused on installing digital infrastructure like automated traffic management system and CCTV's to and enhance safety and automate traffic flow.

The idea of junction improvement has a long history in the urban planning of Jalandhar. In 1953, the Jalandhar Improvement Trust (JIT) initiated an ambitious Junction Improvement scheme at the Chowk by acquiring 5.5 kanals (0.69 acres) of land around it which aimed to ease traffic congestion and to build a park within the roundabout. The affected vendors and shopkeepers refused to wholly co-operate and filed petitions and court cases to stop it.

Since the 1970s, a trading economy has developed around the chowk which adds to the rich entrepreneurial activity and livelihoods of migrants and lower castes. Three kinds of bazaars are present here: *Sudama market* selling new clothes, a *second-hand cloth market* run mainly by Gujarati migrant women, and a *vegetables Mandi (market)*. In the 1980s, fruit vendors from Jammu (north India) started setting up shop around the chowk.

Between 2006 and 2013, the municipality proposed a Built Operate Transfer (BOT) project to construct parking lots and a commercial complex in the land adjoining Jyoti Chowk. Subsequent negotiations with vendors fell through as the municipality failed to enter into a legally binding agreement to relocate them in a new shopping complex. In 2012, the Punjab High Court again directed the municipality to clear the encroachments around Jyoti Chowk especially on the tehsil land.

Following the enactment of the 2014 Street Vendors Act[13], the Jalandhar Municipality published an extensive street vendor survey. The survey revealed that around 12,000 vendors trade in various parts of the city. Nonetheless the municipality failed to come up with designated hawking zones.

Jyoti Chowk's identity is associated with caste and class struggles amidst rising exclusionary measures taken by the city to remove hawkers and vendors. Recently, the junction was renamed as Bhagwan Valmiki Chowk (from Jyoti Chowk) to mark the growing Dalit (low caste) identity in the city. It has been a space of contestation since the 1940s, whereby successive groups have staked claim to it through innovative and entrepreneurial use of space. At the same time, the municipality has been trying to bring the junction and its surrounding areas under its direct control with the eventual aim of monetising the land through commercial development.

PHOTO: © ROHIT MADAN

Image 2.12: Valmiki (Jyoti) Chowk, Jalandhar

PHOTO: © ROHIT MADAN

Image 2.13: Cityscape and markets of Jalandhar

2.6 Shimla: from Imperial Summer Capital to Tourist Town

Shimla, a city of about 170,000 people, is a picturesque hill station nestled in the Himalayan foothills and was the summer capital of the British Empire (1864-1945). Shimla has a long history of planning since the colonial period with the Simla[14] Improvement Trust (SIT) set up in 1875. SIT Committee was largely concerned about 'congestion and sanitation' in its 'bazaar areas' focussing particularly on interventions in housing, water and sanitation infrastructures. Shimla's urban transformations since the colonial period have been brought about through the interconnected web of seasonal migration that contributed to the prosperous commercial life of the Bazaars at various levels - Mall Road, Middle Bazaar, Lower Bazaar, Gunj Bazaar, meat market, sabzi mandi and several others.

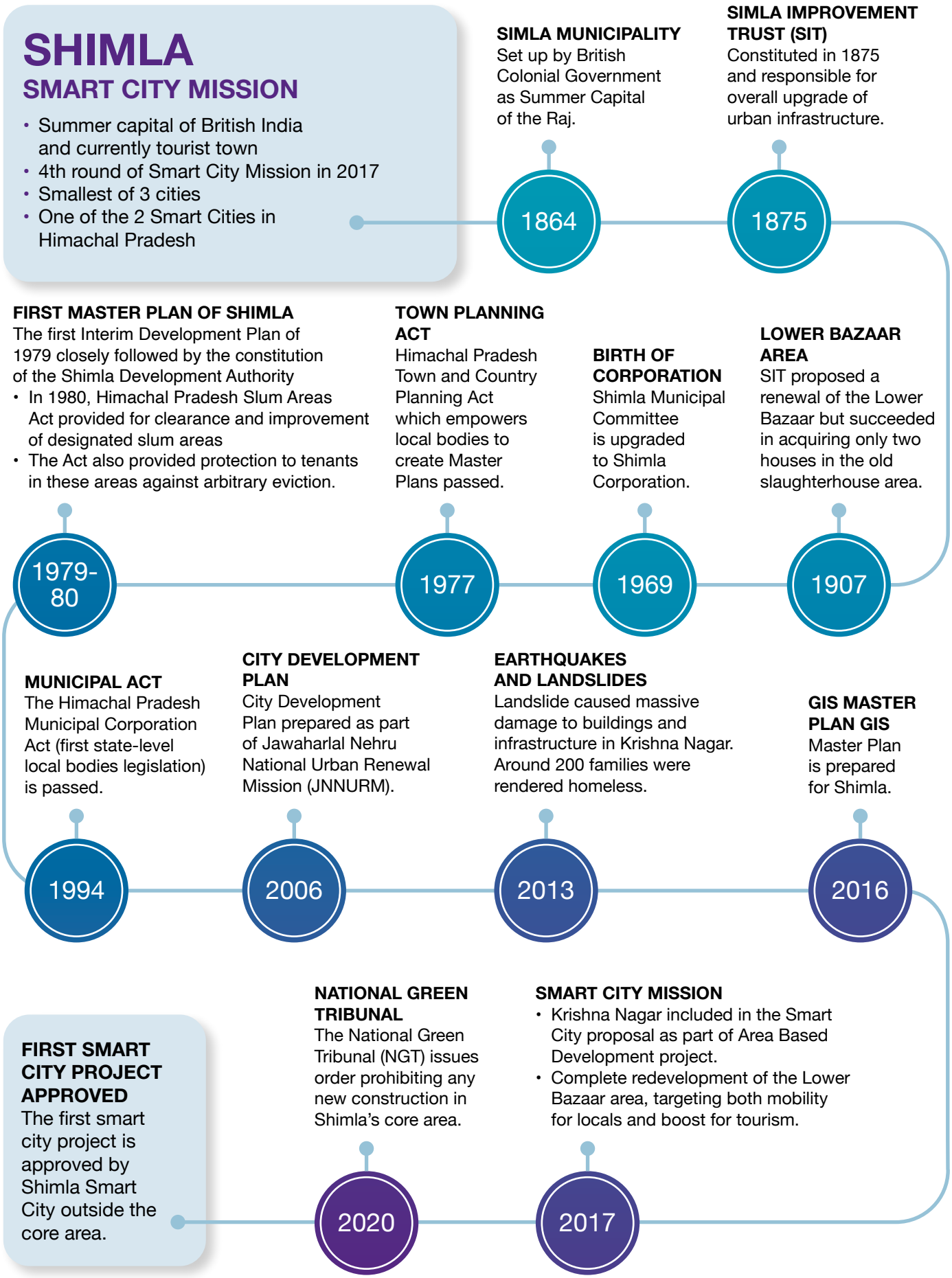
After independence, Shimla became the capital of the regional state of Punjab, and in 1966 incorporated as the regional state capital of Himachal Pradesh. The city had its first Interim Development Plan in 1979, closely followed by the constitution of the Shimla Development Authority in 1980. Since then, the plan has been updated and amended to reflect the nature of issues posed by the ongoing urban development in the city. While building regulations and careful control over land use have been the central themes in these plans, they have also come to attend to emerging issues such as traffic congestion and sustainability. In 2016, the city published its first integrated report on risk management, hazard mapping, and assessment of vulnerability in the physical, economic, and social environment.

For a more detailed timeline of urban development in Shimla see Figure 2.5

PHOTO: © ROHIT MADAN

Image 2.14: Shimla – The summer capital of British Empire

Figure 2.6: Shimla in Historical Context. Compiled by research team



The Shimla Smart City Proposal (SCP) claims to focus on transforming its identity into a **'Clean, Serene and Vibrant'** tourist town by building resilient infrastructure; augmenting mobility and easing traffic congestion; solid waste and wastewater management; strengthening tourism; and creating open spaces based on the priorities identified by citizens during the proposal development phase.

Shimla proposal includes 53 projects spread across three categories – (i) pan-city, (ii) retrofitting, and (iii) Area Based Development (ABD).

Pan-city projects include development of software for information management systems (for health care provisioning, traffic control, transport services etc.), the installation of CCTV cameras, and city branding. Given the mountainous terrain of the city, the proposed retrofitting projects focus on the improvement of junctions, roads, foot overbridges, construction of lifts, escalators, and tunnels. The overwhelming focus here is on improving mobility and easing traffic congestion. Since the pan-city projects had not taken shape during our research, we focussed on two core areas – Lower Bazaar and Krishna Nagar, both of which are part of a 48 acres ABD redevelopment of Shimla.

2.6.1 Area-Based Development: Lower Bazaar and Krishna Nagar

Lower Bazaar in Shimla has been the focus of urban development since the early twentieth century (see Figure 2.5). Throughout the first two decades of the twentieth century there were attempts by the Simla Improvement Trust (SIT) and the Simla Municipal Committee to acquire land and rebuild houses, however, none of these proposals materialised in any substantial way. In 1983 and 2006, anti-encroachment drives took place under the direction of the Himachal Pradesh High Court in response to written petitions filed by civil society bodies.

In 2017, Shimla's Smart City plan proposed a complete redevelopment of the Lower Bazaar area (See Image 2.15 and 2.16). The plan involved complete demolition and reconstruction of the built environment resulting in broadened walkways, undisrupted views of the valley, and streamlined structures for commercial use. In 2019, the Smart City revealed plans to revamp the 400 or so municipal owned shops in the area. Due to the nature of the terrain, the redevelopment plan cannot be carried out without also engaging settlements and structures further downhill, of which the largest and most significant one is the neighbourhood of Krishna Nagar.

Krishna Nagar area was unnamed as 'Below Cart Road' in the colonial planning documents[15] due to its location down the slopes below Cart Road, which was the only road connecting Delhi in the plains to Shimla during the colonial period. Through the 1930s to 1950s, groups of migrant workers from Punjab and Kashmir arrived in the city and settled down the slopes below Cart Road, as the imperial administration at the top of the hill required vast amounts of labour and resources in summer months. Shimla's story of urbanisation therefore begins from Krishna Nagar, where the incremental nature of house building over generations have produced the current view across the hill (see Image 2.17). In 1979, the Himachal Pradesh Slum Areas Act came into being which provided a legal framework for the clearance and improvement of designated slum areas while also providing protection to tenants in these areas against arbitrary eviction. Krishna Nagar was designated as a 'Slum' under this Act.

Figure 2.7: Shimla Smart City initiatives. Compiled by research team

LOWER BAZAAR is a busy stretch of shops and businesses under Mall Road, attracting tourists and locals alike, and proposed to be demolished and rebuilt under the Smart City proposal.

KRISHNA NAGAR comprises of an informal settlement of predominantly Dalit households that is at risk of demolition, eviction and landslides.

Source: Shimla Smart City Proposal

PHOTOS: © ROHIT MADAN

Image 2.15: Lower Bazaar area, Shimla

Image 2.16: Shops along Lower Bazaar, Shimla

In 2013, a landslide caused massive damage and destruction to buildings and infrastructure in Krishna Nagar. It was reported that close to 200 families were rendered homeless. In the same year, Rajiv Awas Yojana – a central government scheme for housing provision was implemented in the area. Of the 1213 existing households, 1110 were identified as eligible to receive support under this scheme.

Shimla's Smart City Proposal presents both Lower Bazaar and Krishna Nagar through the lens of disorder to argue for their redevelopment:

"The redevelopment project includes 48 acres of Lower Bazaar, Gunj and Krishna Nagar and capitalizes on the opportunity to replace dilapidated and unsafe building stock with new resilient, modern, earthquake safe, smart green development, unlocking its full tourism potential…. Presently the area selected has worthless dilapidated buildings with priceless views"[16]

PHOTO: © ROHIT MADAN

Image 2.17 Krishna Nagar from across the hill

Constructing earthquake resilient 'green' buildings is iterated several times throughout the Smart City proposal. The proposal further mentions the vegetable and meat markets in the area, characterising them as 'non-functional'. In course of our research, we found the markets to be bustling with activity, which places the planners' imagination at odds with the lived realities of the place.

A major roadblock for Shimla Smart City has been the National Green Tribunal's order[17] which bans residential, institutional, and commercial constructions in core areas and green-belt areas of Shimla and restricts the number of storeys to two-and-a-half in all other areas. This has stalled work on the ABD project which was premised on constructing multi-storeyed buildings to replace old buildings to ensure commercial viability and to create new open spaces. The order currently stands challenged and is under review.

PHOTO: © ROHIT MADAN

Image 2.18: Krishna Nagar buildings

PHOTO: © ROHIT MADAN

Image 2.19: Krishna Nagar houses, Shimla

2.7 Summary findings

The imaginations of smart urban futures for the three small cities of Nashik, Jalandhar and Shimla suggest an aesthetics of order and cleanliness that risks reducing small cities into real estate assets. In this, the assets that are valued by the Smart City proposal are based on their economic exchange value. Historic areas or natural resources or the diversity of labour are not considered assets in and of themselves, but are sometimes seen as obstacles to be removed or remodelled in order to support the dominant discourse of smart urbanism. Despite their rhetoric of flexibility and democratic choice, the scale of urban transformations initiated by the Smart Cities Mission seek to aestheticise rather than celebrate existing cultural and built heritage, thus further excluding those already marginalised in small cities.

It is clear from our research that many of the initiatives under the Smart City proposals are not new. Indeed, the redevelopment projects in all three cities have been in place since the colonial or post-colonial period. These are highly contested sites because they are vibrant sites of labour, entrepreneurship, livelihoods and domesticity for those most marginalised for generations. The rhetoric of disorder (e.g., dilapidation, informal, congested, worthless) in the Smart City proposals places the planners' imagination at odds with the lived realities of the places as we shall see in section 4.

Chapter 2: Notes

1 GoI. 'Smart City Mission Statement and Guidelines'. New Delhi, India: Ministry of Urban Development, Government of India, 2015. https://smartnet.niua.org/content/2dae72ca-e25b-4575-8302-93e8f93b6bf6, p7.

2 GoI, p.5.

3 GoI, p.18.

4 Datta, 'The "Digital Turn" in Postcolonial Urbanism: Smart Citizenship in the Making of India's 100 Smart Cities'.

5 Datta, Ayona. 'The "Digital Turn" in Postcolonial Urbanism: Smart Citizenship in the Making of India's 100 Smart Cities'. Transactions of the IBG 43, no. 3 (2018): 405–419.

6 At the time of the research, many of these plans were in the inception stage or were just being tendered.

7 'Nashik Smart City Proposal – The Smart City Challenge (Stage 2)'. Indian Smart City Mission, n.d. https://smartnet.niua.org/sites/default/files/resources/Nashik_SCP.pdf, p12.

8 Bombay Presidency Gazette n.d. (https://gazetteers.maharashtra.gov.in/cultural.maharashtra.gov.in/english/gazetteer/Nashik%20District/gen_hills.html#2) Accessed 15 January 2020.

9 Nashik Smart City Proposal, p12.

10 Datta, Ayona. 'Why Smart City Projects May Not Be Enough to Hold Back Jalandhar's Youth'. Citizen Matters (blog), 2019. https://citizenmatters.in/jalandhar-smart-city-promises-fail-to-attract-youth-13829.

11 'Jalandhar Master Plan (2009-2031)'. Accessed 1 October 2021. https://www.gmada.gov.in/sites/default/files/documents/Jal_rpt_2011.pdf.

12 'Jalandhar Smart City Proposal – The Smart City Challenge (Stage 2)'. Indian Smart City Mission, n.d. https://smartnet.niua.org/sites/default/files/resources/Jalandhar_SCP.pdf.

13 The Street Vendors Act, 2014 is an act that seeks to protect the livelihood rights and social security of urban street vendors in the country and thereby aid poverty alleviation efforts of the Government. The Act aims at fostering a congenial environment for the urban street vendors to carry out their activities without harassment from any quarter. It also provides for regulation of urban street vending and is uniformly and mandatorily applicable to all the States and Union Territories.

14 The colonial name of the town was spelt as 'Simla', which was changed to 'Shimla' through the official addition of 'h' in the 1980s. https://www.businessstandard.com/article/news-ians/shimla-celebrates-150-years-of-summer-capital-114030300354_1.html.

15 Datta, Ayona. 'Simla "below Cart Road": Biographies of Houses in the Margins of an Imperial Urban Age'. Learning from Small Cities, 2019. https://www.smartsmallcity.com/blog/2019/9/7/simla-a-cosmopolitan-biography-of-houses-from-below.

16 Shimla Smart City Proposal n.d. http://www.ud.hp.gov.in/schemes-projectssmart-city-missionproposals-for-smart-cities/shimla-smart-city-proposals. Accessed 15 March 2020.

17 (Yoginder Mohan Sengupta vs Union of India and others, 16th November 2017) http://www.shimlamc.org/file.

3. Governing Urban Futures

The Smart City Mission introduced an array of strategies and mechanisms to translate its own vision for order and a digitally integrated urban future into its small cities. This has proved to be a major challenge because infrastructure needed for this vision is largely absent or lacking in smaller cities such as Nashik, Jalandhar or Shimla. As a result, governing transitions to smart urban futures has also demanded the set-up of new regulatory frameworks as well as introducing new physical and digital infrastructures through pan-city projects. In this section we analyse how these strategies were received by stakeholders and to what extent they deliver on the promised vision.

We focus on two tools of governance:

i) A new centralised framework for urban local governance. This brought with it particular challenges around local democracy, the overlaying of multiple actors and competitive resource allocation.
ii) Digital infrastructures for integrated governance.

PHOTO: © AYONA DATTA

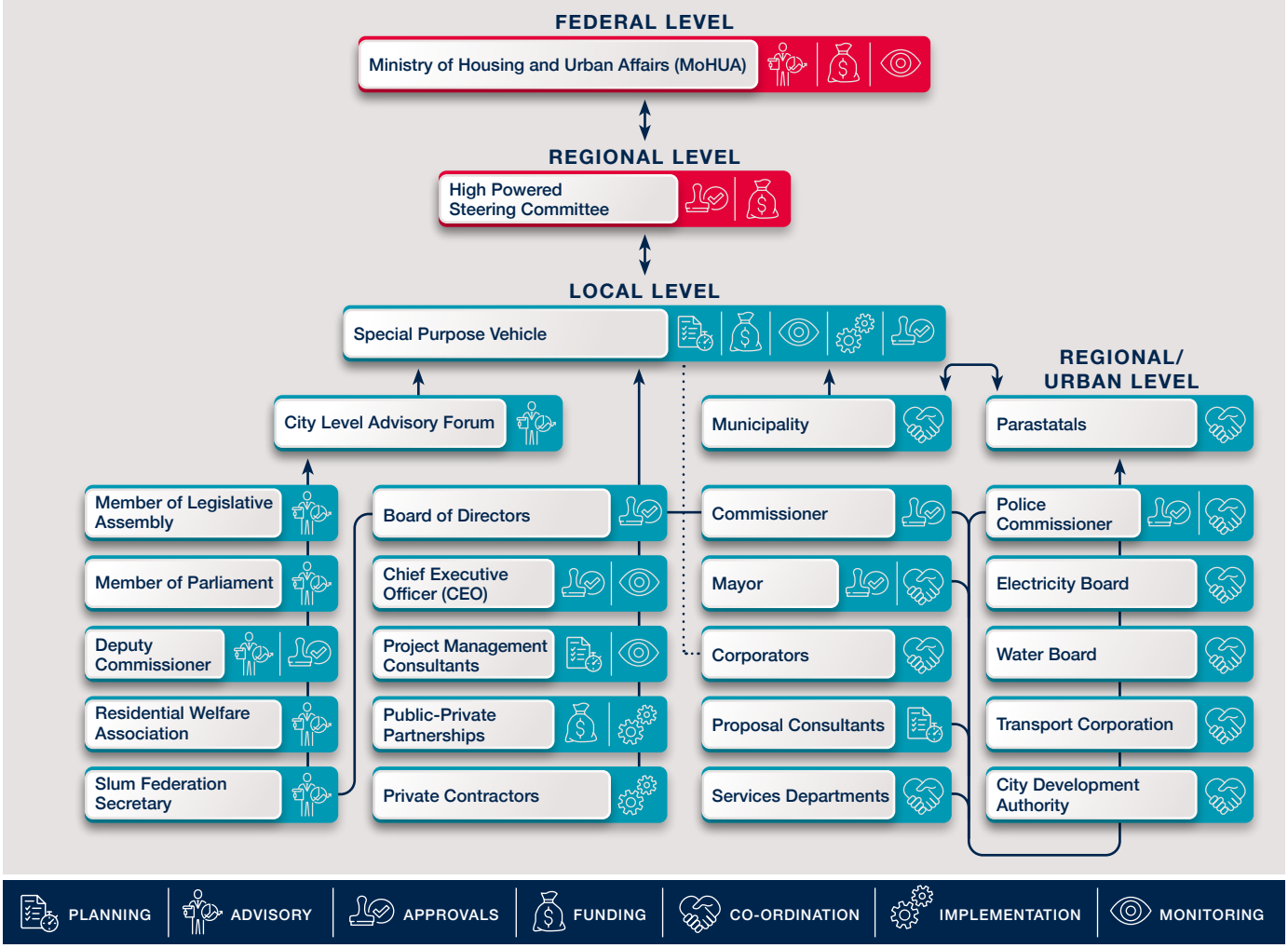
Image 3.1: Clouds descend over Shimla during the monsoon season

3.1 New Framework of Urban Local Governance

The Smart City Mission marks a significant reversal of India's Constitutional devolution[1] of local governance. In 2015, a Special Purpose Vehicle (SPV) Act was introduced which establishes a limited company in each urban municipality with majority shareholding equally distributed between the state and Urban Local Bodies (ULBs). It is to be led by a Chief Executive Officer (CEO) appointed by the federal State and a board of directors with nominees representing the centre, the state, and the ULB. The SPV is expected to enjoy full flexibility in planning and managing projects and employ Project Management Consultants (PMC) to assist in the task of preparation of Detailed Project Reports (DPRs), contracting vendors, designing-developing-evaluation-monitoring of projects. Upon completion of the mission, it is anticipated that the SPV shall be dissolved and handover the projects to ULBs for maintenance and extension. Due to the multifaceted nature of Smart City projects, they are also subject to clearance, advisories, and regulation from other bodies at state and national levels. Private sector stakeholders are permitted to be minority shareholders in the SPV. The creation of this alternative governance structure is explained in terms of "operational independence and autonomy"[2].

Figure 3.1 illustrates the new governance framework proposed under the Smart Cities Mission[3] and the nature of powers/ duties vested in the hands of various agencies.

Figure 3.1: New Structural Framework proposed under the Smart Cities Mission. Compiled by research team



3.1.1 Local Democracy and Challenges to the Special Purpose Vehicle (SPV)

The SPV structure runs counter to Constitutional devolution, rendering ULBs as one entity amongst the many public and private institutions and actors entangled in the flows and networks of Smart City building. The special powers vested with the SPV reduce the decision-making powers of the ULB with regards to Smart City projects. This approach has had varied levels of reception across cities.

In the three cities studied, we found marked disparities in the approach of the ULB towards the SPV and its mode of functioning. In Nashik this immediately came under challenge from elected ward representatives of the Nashik Municipal Corporation. Detailing out this opposition, one of the elected representatives we interviewed in Nashik said,

> **"SPV faced its first opposition in Nashik, and we were the first ones to raise voice against SPV in the whole country. The Panchayati Raj system which was strengthened under the supervision of Yashwantraoji Chavhan and later Rajiv Gandhi in 74th Amendment gave it the status of third level government. Some 10-15 years ago the state pledged to make it a third government and now by showing distrust in this institution they are introducing SPV."** (NI004)

As a result of this opposition from local elected representatives, the federal State accepted an expansion of the board of directors within the Nashik SPV. In addition to the Municipal Commissioner – a nominated bureaucrat – elected members such as the mayor and opposition ward representatives were invited to join the board of directors.

In Jalandhar and Shimla, the elected and appointed members of the ULBs were closely consulted in the process of constituting SPVs and were actively involved in charting its agenda. Nonetheless, excerpts from the minutes of meetings that we assessed reveal that the steps taken by SPVs were scrutinised and contested by other local politicians such as members of the state legislature. The relationship between the SPV and the existing structure of local democracy is therefore one of constant negotiation.

Further, our research suggests that the SPV enjoys little autonomy in real terms (see Figure 3.2, Figure 3.3 and Figure 3.4). Instead of streamlining bureaucracy, it has added another

layer of SPV related bureaucracy over municipal procedures in executing Smart City projects. The CEO and board of directors have limited powers and can only greenlight low-budget projects. All other projects go through rounds of review with either the Urban and/or State Level Technical Committee. This process must be repeated at both the planning and tendering stage for every project undertaken. Besides this, in certain cases, the state governments and judicial entities have imposed further restrictions on the SPV due to challenges from civil society actors and activists.

3.1.2 Competitive resource allocation

The federal release of funds for the Smart City projects is subject to a continued performance of SPVs. This creates a policy environment where cities are in a constant competition with each other and prioritise projects that can elevate them in this process. This mode of governance and monitoring gears the efforts of the city administration towards short term deliverables and diverts attention away from long term endeavours that demand sustained engagement on their part. A city-based architect and planner in Nashik commented:

> **"…see, constant ranking and constant competition is healthy, it is very healthy…I'll tell you, see last year, the ranking of Nashik for cleanliness was very low. Everybody criticised it, so this year what happened is, when the actual date of competition came into the picture, they started cleaning the city. But if the govt. really wants to make the city smart, they have to make it a 24/7 activity. Not activity for once in 12 months. You will find…whenever a committee is going to visit a city to check the cleanliness, 15 days prior to the visit of the committee, you will find people on the roads cleaning everything, they will come into the private property and clean it. The moment the committee's back is turned, you will find all the garbage again at the same previous level, and the city at the same deteriorating position…"** (NI008).

Figure 3.2: Network of institutions and actors guiding Smart City projects in Nashik. Compiled by research team

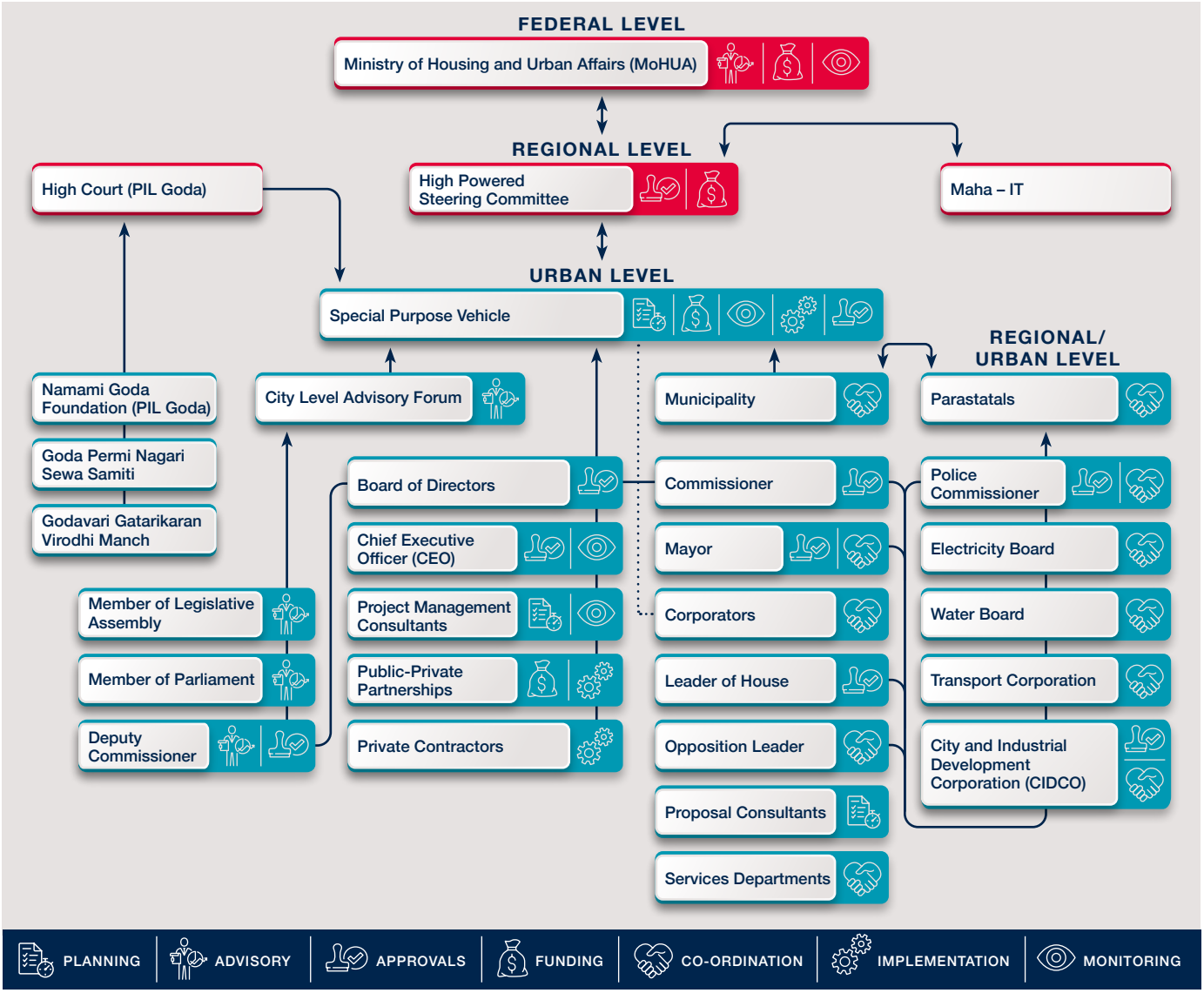


PHOTO: © ROHIT MADAN

Image 3.2: Old Temple near Jyoti Chowk, Jalandhar

Figure 3.3: Network of institutions and actors guiding Smart City projects in Jalandhar. Compiled by research team

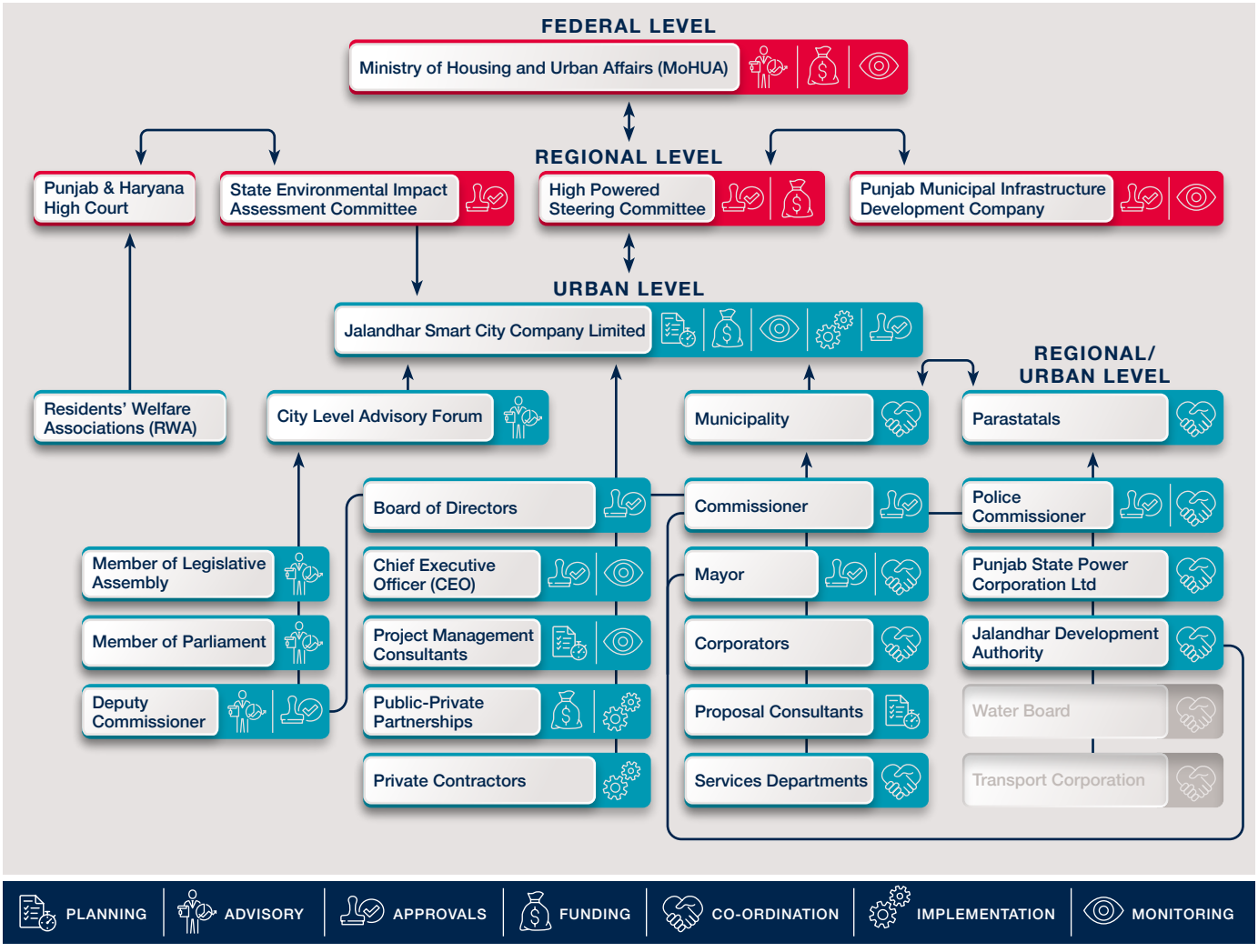
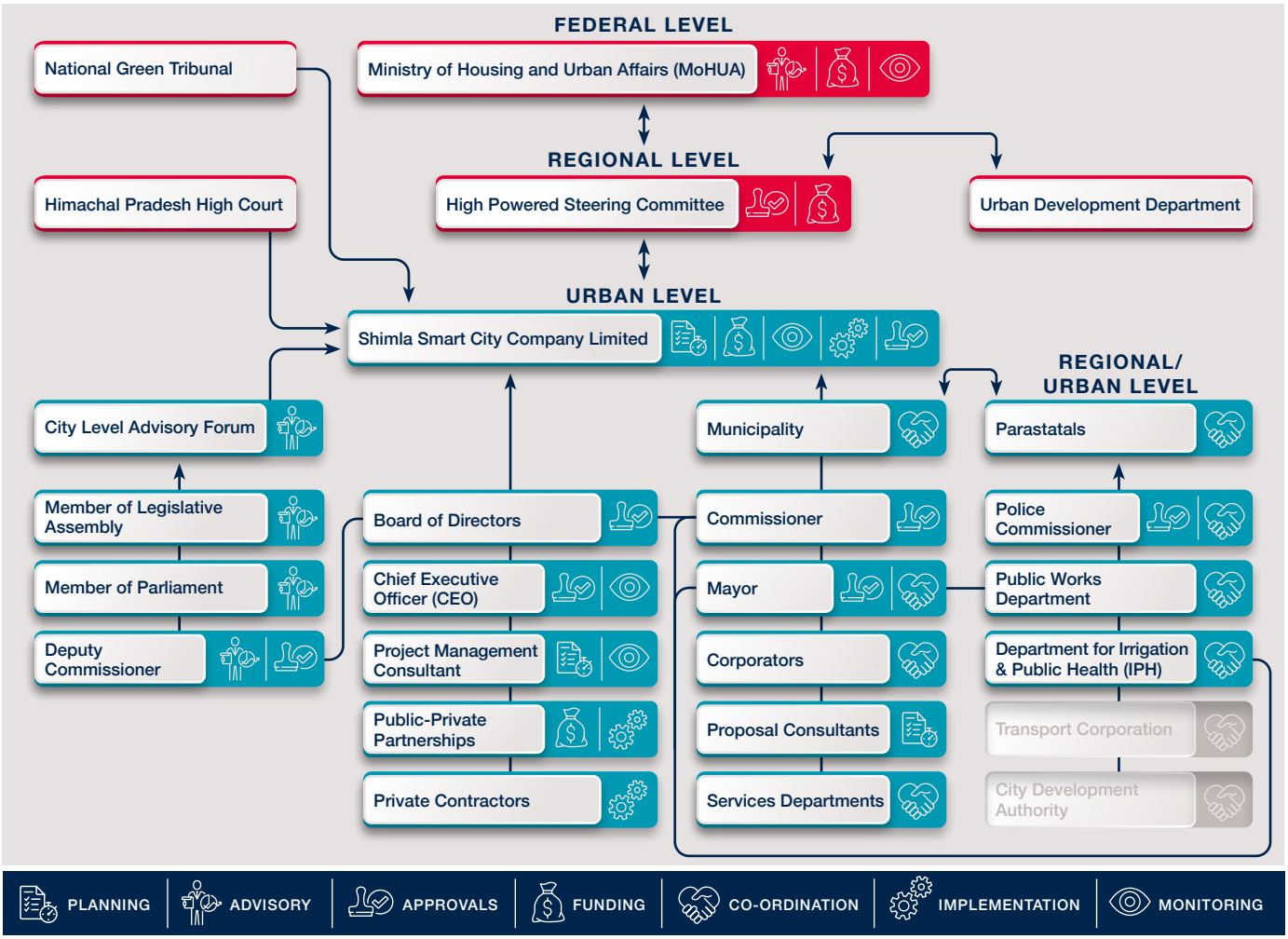


Figure 3.4: Network of institutions and actors guiding Smart City projects in Shimla. Compiled by research team.



3.2 Digital Technology as a Tool of Governance

Digital infrastructure is a core component of Smart City development at all scales of imagination from global think tanks to city level planning. However, small cities in India are often challenged by data scarcity – information about its land, resources, labour, and citizens are difficult to collate since much of the cartographic data is fragmented and obsolete in most cases and circular migration that characterises small cities, makes reliance on Census data problematic.

Our research shows that the imperative to govern through digital tools meant that each city had initiated upon large scale digitisation and mapping linked to an economisation of assets – land capital, tax base, revenues – as well as the control of disorder by automating penalties.

Our research shows that digitisation and mapping was also geared towards real-time monitoring and surveillance of Smart Cities. Each city was required to set up Integrated Command and Control Centres (ICCCs) assembling different structures of governance (traffic, waste, water and so on) within a real-time visualisation.

3.2.1 Digital Mapping and digitisation

In 2016, Jalandhar Municipal Corporation undertook two ambitious projects. The first was to digitally map all its overground and underground infrastructures for service provisioning undertaken by a consultancy firm which created GIS maps of all roads, streetlights, bus stops, mobile phone towers, schools, hospitals etc. At this stage, the project was converged into the Smart City portfolio and taken over by the SPV. Our interviews with consultants revealed that this project hit some roadblocks due to its high budgetary demands and the need to keep up with latest technological innovations. The scope of the project was eventually reduced to cover only parts of the city selected for Area Based Development (ABD) interventions.

PHOTO: © ROHIT MADAN

Image 3.3: Rush hour traffic near Jyoti Chowk, Jalandhar

The second digital mapping project in Jalandhar was aimed at addressing its long-drawn struggle with collection of property tax which sought to link each property in the city with a GIS based e-nameplate that would make tracking and monitoring of property tax payments more transparent. It was then linked to the Aadhaar Universal Identification (UID)[4] data of property owners to automate property and income tax.

While not of the same scale or scope, Shimla Municipal Corporation has also undertaken extensive digital mapping with a focus on risk assessment and disaster preparedness. Under the Smart Cities Mission, projects like these are expected to be brought under the purview of the ICCC and converged with other digital mapping projects.

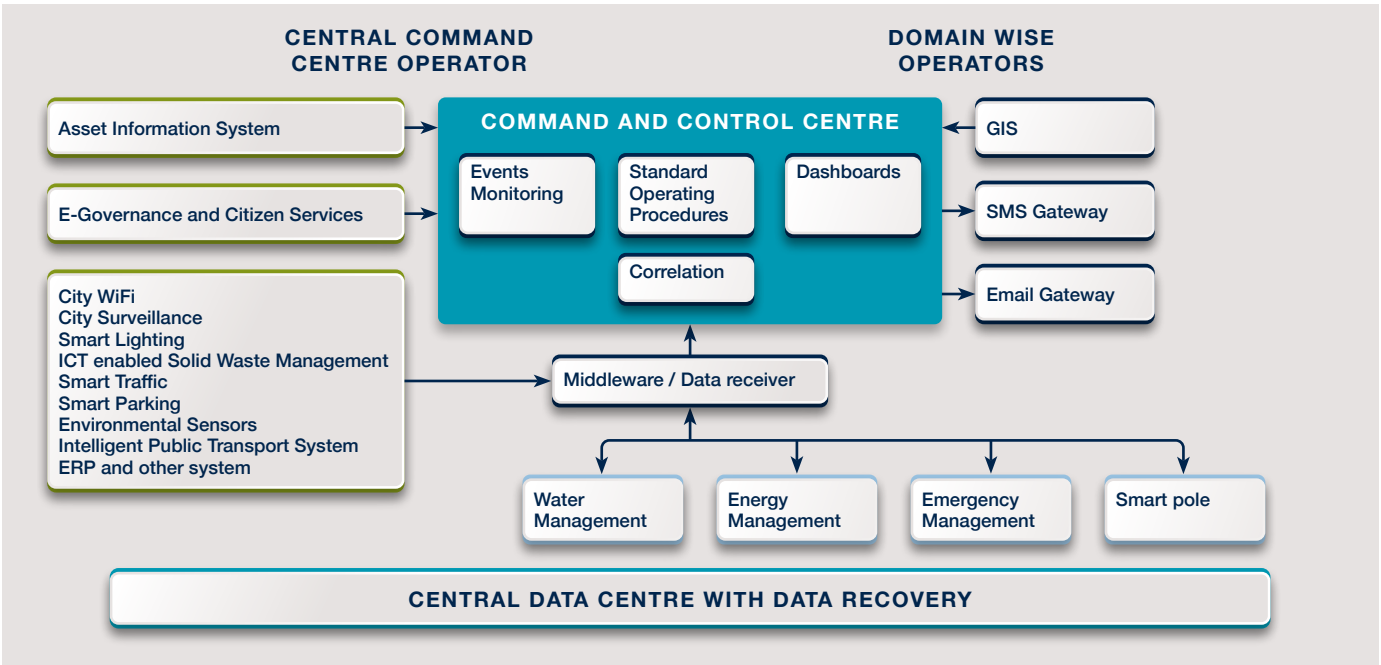
3.2.2 Integrated Command and Control Centres (ICCC)

The Smart Cities Mission explicitly requires each nominated city to establish an Integrated Command and Control Centre (ICCC). The ICCCs are imagined as the pivots around which the ecosystem of urban governance is organised. This is significant, since even if cities could decide their own customised package of smart technologies, the ICCCs were the common feature across all cities. Developed and assembled by a host of international and domestic IT partners, infrastructure companies, developers and a whole host of companies, ICCCs produce an operational mechanism that ostensibly connects raw data to governance, administration and infrastructural efficiency.

In Nashik, interviews with project consultants revealed that the scope of work within the ICCC project changed significantly after their appointment. The focus shifted to securitisation and surveillance with an emphasis on the installation of CCTV cameras. This was to be accompanied by the extension of Wi-Fi network to cover all the identified locations. While work on the ICCC remained stalled in Nashik until the beginning of 2020, the theme of surveillance and real-time control emerged in interviews with the Assistant Commissioner of Police in Jalandhar.

"I think that ICCC will be a wonderful thing to happen because I can know what's happening in the city and where. That will give me ten extra hands to work with and a lot of information. Currently, it is not possible for me to know sitting in my office so what I do is I have to visit different

Figure 3.5: Structural framework of ICCC. Presented by Project Management Consultants at a National Workshop on 30 October 2017



spots in the city daily. I cannot patrol the entire city daily. So, this will allow me to get details and inputs from different centres – what is going on and if there are any problems. This will widen our reach. It is important to have a single central controlling command centre where I can sit and see everything and deal with everything. I think this will definitely improve the traffic situation." (JI017)

The role of CCTV cameras in crime detection and prevention was highlighted by many of the officials we interviewed. Concerns about the implications of such a move for the question of citizens' privacy, were however diluted by the consultants.

"So we are not putting the cameras anywhere in the personal space, we are putting them in public spaces. When you say public space, the Police have the right, the Corporation has the right to use, see and do anything there. We are not stealing something, we are not capturing someone's privacy, we are not doing that. All the cameras are put at the bus stands, the railway stations, so we are not hampering the privacy of anyone." (JI004)

3.3 Summary findings

The governance of small cities as they transitioned to future Smart Cities was driven by two approaches:

a) A new legal framework of Special Purpose Vehicle (SPV) that has centralised power at the federal and regional scale, and
b) The use of digitisation as a tool of control and ordering.

Our research found that the SPV framework has been challenged in many cities for centralising power at the federal scale and bypassing democratically elected urban representatives in the Municipality. However, the SPV enjoys little autonomy in real terms since the relationship between the SPV and the existing structure of local democracy is one of constant negotiation. Instead of streamlining project implementation, the SPVs has only served to further complicate bureaucratic processes effectively slowing down project implementation.

Inter-urban competition runs as a dominant theme throughout the governance of Smart Cities projects across all stages – determining the allocation of resources to each city based on performance monitoring. This has turned the focus of project implementation towards short-term deliverables at the cost of projects that require long-term engagement.

Digital technologies and infrastructures are key tools for the governance of future Smart Cities including a shift towards ubiquitous real-time surveillance through Integrated Command and Control Centres (ICCCs). However small cities provide a challenge towards this approach since they are characterised by data scarcity and absence. Digitisation therefore required extensive infrastructure and asset mapping by the municipal authorities and their pairing with citizen data and biometric identities to enable automated service and revenue management and securitisation.

Chapter 3: Notes

1 In 1992, the 74th Amendment Act of the Indian Constitution sought to devolve and decentralise decision-making and revenue generation powers into the hands of Urban Local Bodies – the city level governing institutions. These bodies are constituted by elected representatives with five-year terms and with proportional representation for marginalised communities. The amendments were adopted to varying extents by the different states.

2 SPV (Smart City Mission Guidelines) – https://smartcities.gov.in/themes/habikon/files/SmartCityGuidelines.pdf.

3 GoI. 'Smart City Mission Statement and Guidelines'. New Delhi, India: Ministry of Urban Development, Government of India, 2015. https://smartnet.niua.org/content/2dae72ca-e25b-4575-8302-93e8f93b6bf6.

4 Aadhaar is a 12-digit individual identification number issued by the Unique Identification Authority of India on behalf of the Government of India. The number serves as a proof of identity and address, anywhere in India. https://www.uidai.gov.in/16-english-uk/aapka-aadhaar/14-what-is-aadhaar.html.

4. Living with the Future

In this section we turn to the lived experiences of citizens and civil society actors in Nashik, Jalandhar and Shimla. We focus on the ways in which Smart City projects impacted on their homes, livelihoods, and a sense of belonging in the future city. We also report on the tangible and intangible assets that were valued by citizens to highlight that they were often at odds with the economic value placed on assets by urban authorities.

4.1 Nashik

The two themes that emerged from our interviews with the communities were i) de-concretisation of the kunds (ancient ponds); and ii) eviction anxiety.

4.1.1 "River was buried alive"

Concretisation was seen by activists as having destroyed the natural aquifers on the riverbed which made the area more prone to flooding (see section 2.4.1). The constant metaphor which emerged in interviews with civil society actors was – *"The river was buried alive".*

Most respondents along Goda Ghat had not been aware of the projects proposed under the SCM until they were already under implementation and had been advertised on notice boards at the site. In the absence of knowledge, we encountered different views on what should be redeveloped. When asked about the general mass awareness on the Project Goda, an architect replied:

"Nothing madam, there is no public knowledge. If you go to my faculty and ask 30 people who are good citizens of the city of Nashik, and who are architects, they don't will not even know what is happening with the smart city. You [Government] should put up at least some kind of advertisements in the papers. The basic knowledge of Godavari has still not been created, it has still not been grounded, it is not put on paper and how will they [officials] have the confidence to speak to us because they know we are going to ask 100 types of questions..." (NI027)

PHOTOS: © ROHIT MADAN

Image 4.1: Many bazaars along Goda Ghat

Most of them argued that de-silting and de-concretisation was necessary. Many were keen on improving the river water-quality by stopping sewage overflow from nearby localities. Almost all respondents agreed that beautification of parks was not necessary as the rains and Godavari floods will wash them away eventually. The lived experiences of the priests, the vendors, temple caretakers, guides and security guards reveal that the otherwise flowing Godavari was *'brutally killed'* during concretisation. An eminent environmentalist remarked about the deteriorating condition of the river as,

> **"It is River kill. So, they have filled up all the 17 ponds. People come for bathing here. But you have killed it by doing concretisation in the river bed."** (NI018)

In 2017, the Maharashtra High Court ordered Nashik Municipal Corporation to take appropriate actions to de-concretise and address rising levels of pollution and flooding of the river. Yet no action was taken by the Municipality. In 2018, local activists sent a contempt notice to the Nashik Municipal Corporation for its failure to comply with the High Court order. In 2020, Nashik municipality was compelled to initiate the removal of concrete from the riverbed as part of its Nashik Smart City project. The de-concretisation is ongoing at the time of publication of this report.

4.1.2 Eviction Anxiety

Although the Smart City proposal for Goda Ghat makes no mention of the bazaars or any plans to displace them, the very idea of redevelopment of Goda Ghat has heightened eviction anxiety among the vendors and hawkers along the riverbank (see Image 4.1). They spoke of feeling betrayed by the city authorities leading to a general sentiment of suspicion and resentment about the project.

Our interviews with vendors in the four bazaars suggest that development and beautification undertaken by the Municipal Corporation during the Kumbh festivals had slowly dispossessed them of their livelihoods along the Ghats. Some of them operated on parts of the Ghat that were privately-owned by the temple trusts and paid rent for the same. Others who operated on public parts of the Ghat were largely at the discretion of Municipal officials. A group of barbers working at makeshift stalls on Municipality-owned land said they were removed during the Kumbh Mela between 2015-16 and could only return after much agitation.

Though all bazaars were impacted, the fruits and vegetables bazaar was most affected due to its proximity to Ram Kund – the central and most sacred of the bathing ponds. After the conclusion of Kumbh Mela in 2003, the vendors were not allowed to come back. The Municipality has tendered out the erstwhile market space for private parking. Many itinerant Adivasi (tribal) healers and other small traders continue to operate there amidst the cars. The fruits and vegetables bazaar has moved onto the road and now operates from there (see Image 4.2). As a member of hawkers association said in his interview:

PHOTO: © ROHIT MADAN

Image 4.2: Fruit and vegetable market, Nashik

> **"I agree that a Smart City will have a WiFi system, mobile systems, email services, other services, drainage systems, it should have a permanent system that should not face any problem anytime later. I agree that this is needed, but not now. This means we are a developing country and not a developed country. In the Smart City, we are spending as per developed countries; while there is a situation in the country that people are starving, and we are spending the money here instead of prioritizing it to provide employment for people. … and I would say that it is the money of common people."** (NI015)

The theme of eviction anxiety also emerged strongly among street vendors working at the Smart Road site. Our research addressed three groups of street vendors along three different stretches of the smart road.

Around 20 vendors traded on the pavement from Central Bus Station (CBS) to Meher Chowk offering all kinds of goods and services from clothes to snacks to indigenous medicines to palm reading. We observed them being removed by police personnel on eviction drives. The street vendors were told to move to a designated official 'hawking zone' in a side lane.

The smart road project caused several problems to the street vendors and auto drivers whereby they faced loss of livelihood and fear of eviction due to the temporary closure of the road for extended periods of time. The plight of an auto driver was clearly evident when he said:

> **"It was better before. Now the difficulties have increased. No one knows how many days this is going to last. It has now been rebuilt after spoiling the good one. The work started a year ago just for 1 km, and it has been going on for more than 2 years now. Still, it is not done yet."** (NI057).

PHOTO: © ROHIT MADAN

Image 4.3: Shops along the Smart Road, Nashik

Respondents along the proposed Smart Road (see Image 4.3) reported substantial loss in business during the last two years of construction work with shop owners reporting their earnings diminished by half or one-third. Almost all respondents expressed that the Smart Road was an unnecessary project. They felt that the earlier road (which was 5 foot deep and of high-quality tar according to one vendor) was in good shape and that remaking it was unnecessary.

PHOTO: © ROHIT MADAN

Image 4.4: CAM workshop on Goda Ghat

PHOTO: © AYONA DATTA

Image 4.5: CAM workshop on Smart Road

The lived experience of the smart road has had distinct impacts on different sections of people with diminishing hopes of getting back to their normal life again. As one civil society respondent said:

> **"There was no problem with those roads. There are many roads with potholes and everything, but they have not been touched in the Smart City project. The roads, which were good, have been broken and redone but with what quality also, I do not think it will be of good quality."** (Civil society, NI030)

4.1.3 Tangible and Intangible Assets

Map My Assets (MMA) app and CAM workshops[1] revealed several tangible and intangible assets valued by the citizens.

a) Nashik's religious and cultural history was highlighted as the most important asset. Associated with this, participants highlighted numerous religious festivals, public lectures, and arts events.

b) The Godavari River and the Kumbh Mela were both seen as a tangible and intangible assets. The proposed interventions under the Smart City plan (as well as earlier urban development schemes) represented cosmetic changes rather than long-term investments into the health of the river.

c) An upgraded Sewage Treatment Plant (STP) with increased capacity was seen as a tangible asset for the future. Participants said this would reduce effluents that went into the river and thus reduce pollution of the river.

d) Various 'hardworking' civil servants and bureaucrats from central, state, and local governing agencies who were seen to be shaping Nashik's transformation in positive ways. Participants also highlighted the role of civil society groups, activists, and youth population as assets.

PHOTOS: © ROHIT MADAN

Image 4.6: Goda Ghat evening market, Nashik

4.2 Jalandhar

The two themes that emerged from our interviews with the communities were i) loss of green spaces; and ii) trading against all odds.

4.2.1 Loss of green spaces

"This is the place you find peace and solace"
(A walker in Burlton park)

The area earmarked for the Smart City sports hub currently includes three parks. Each of these is managed by an NGO: Burlton Park Welfare Society, Health Care Society, and Dynamic Laughing Club. Burlton Park is used regularly by a wide cross-section of city residents for sport and recreational purposes for example - members of NGOs and residents of surrounding neighbourhoods walks/exercise in the early mornings and late afternoons (see Image 4.8), two groups of women yoga practitioners assemble for daily yoga lessons, senior citizens socialise, while children play cricket. In the afternoons, groups of workers – both men and women – use the park to eat lunch and catch a nap. Young boys practice dance, play badminton, and engage in leisurely conversations. There are also food vendors visiting the park at different times of the day to sell water, juices, and snacks to the exercising crowd (see Image 4.7).

These groups represented a cross-section of class, caste, and gender backgrounds. Those that we interviewed, predominantly middle class women and men, mentioned the loss of green cover as the main reason for their reservations against the Smart City sports hub. They elaborated their struggles with the municipality since the early 2000s to challenge proposals which sought to monetise the park by building hotels and parking spaces. Though most of them agreed that the new sports hub under the Smart City proposals could be an economic boon to the city and could be accommodated within the park, they were reluctant to let this happen at the cost of losing the essential character of the space.

PHOTO: © ROHIT MADAN

Image 4.7: Vendor selling juices and health drinks, Burlton Park

PHOTO: © ROHIT MADAN

Image 4.8: Morning Yoga classes in Burlton Park

PHOTO: © ROHIT MADAN

Image 4.9: Rainik bazaar, Jyoti Chowk

4.2.2 Trading against all odds

"This right here is the heart of Jalandhar" (Street vendor, Jyoti chowk)

In Jyoti Chowk, the proposed Smart City junction improvement project mainly impacts the different markets around the Chowk (see section 2.5) who were seen to be trading against all odds for four generations. The market area has multiple community stakeholders from traders with formal shops to traders with informal shops to regular street vendors to itinerant street vendors trading on daily or even hourly basis. *Sudama market* (see Image 4.10) deals with clothes and is composed of two groups: a largely Punjabi low caste traders selling new clothes and migrant Gujarati women trading in second-hand clothes. The *Sabzi Mandi* trades in vegetables and fruits and is adjoining another popular *Rainik bazaar* (see Image 4.9). These last two markets are particularly vulnerable as they trade on highly contested land claimed by several actors like municipality, central government and Waqf board alike.

PHOTO: © AYONA DATTA

Image 4.10: Clothes shops along the narrow lanes of Sudama Market

The traffic junction improvement project of the Smart City Mission has yet again bought back the threat of displacement to the traders. Interactions with the leaders of the vendors' union revealed the long, chequered history of fighting with the municipality. The disputed ownership and multiplicity of stakeholders in the land around the Chowks have further protracted the process. Most vendors had not heard about the junction improvement project (see section 2.5), but everyone seemed to know about Jalandhar being selected as one of the Smart Cities. Push-cart vendors were anxious that they may be removed by the Municipal Corporation to make way for the Smart City projects. The shack vendors who were more secure from daily evictions also felt that the public/tehsil land they were operating on may be claimed by the Corporation in the future.

One of the shop owners noted:

"If they make the Smart City and in the course of it evict us, how can it still be called a Smart City".

Another vendor remarked:

"If the shops are taken away from us our kids have no option but to become bandits".

Referring to their longstanding relationship with the market and its significance in their lives, one of the shopkeepers said:

"Our father used to work here. Now he is no longer with us but our memories with him are still with us – like sitting and working here. So, like everybody, we also have that attachment with this place. So, it is not about earning alone, but I do get a certain satisfaction here and other people working here would also feel similarly." (JI018)

PHOTO: © ROHIT MADAN

Image 4.11: Community Asset Mapping (CAM) in Burlton Park

PHOTO: © AYONA DATTA

Image 4.12: Vendors mapping assets in Jyoti Chowk

The participants refused to see themselves as encroachers, a term that some media and middle classes often have thrown against them. They noted that they not only do contribute to the city's economy but also are guardians of the land adjoining the chowk. One of the leaders said,

"It is because of us this government land is safe. Big shots have grabbed land across the city. We are just poor traders We are even ready to do compromise. You take 1 rupee, but we at least give us back 8 anna [shillings]".

They were keen to show us that they were improving their market constantly. A vendor noted:

"If these shops look like shacks it is not because we have not tried. Being a vulnerable vendor is not a conscious choice".

4.2.3 Tangible and Intangible Assets

Map My Assets app and CAM workshops[2] revealed several tangible and intangible assets valued by participants.

a) The most important asset for Jalandhar was seen as Burlton Park itself. This was a tangible asset in terms of being the largest green open space in Jalandhar used by ordinary citizens. It was also an intangible asset for its peacefulness, fresh air and community feel, giving health benefits to those who frequented it.

b) The most important future assets at Burlton Park included desires for physical and social infrastructures – rest rooms for all men and women, senior citizen friendly infrastructure, streetlights, water harvesting, gym for girls, recreational facilities like musical fountains, drinking water facility, regular policing, rain shelters and so on.

c) In Jyoti Chowk, the shops and markets were seen as important tangible assets. Hence regularisation of their shops was a very important concern as most of them were third generation traders still vulnerable to eviction. Other tangible assets to maintain their shops and livelihoods we seen to be parking for vendors, water supply, washroom and removal of rubbish.

d) Jalandhar's youth were seen as very important intangible assets. As an emigration city it was felt that more could be done to improve jobs and livelihoods and remove drugs from the streets in order to give them a brighter future.

e) The loss of the historic built heritage of the city was seen as loss of intangible assets. Vendors strongly argued for retro-fitting rather than redevelopment. They argued that density guarantees safety with eyes on the street. One of them said:

"India is not being made, it is already made. The cities we got (after independence) were already made, we can't destroy them. We should combine the old and new elements".

4.3 Shimla

The two themes that emerged from our interviews with the communities were i) implausibility of commercial redevelopment; and ii) precarious housing tenure.

4.3.1 Implausibility of Commercial Redevelopment

Since the ABD project (see section 2.6.1) was yet to be fully developed and tendered out, there was not much awareness about the Smart City in Lower Bazaar. Most respondents had heard that the entirety of Lower Bazaar will be redeveloped in the future but did not associate this with the Smart Cities Mission. There was a divided stance among them on the desirability of the proposed redevelopment project. In interviews, some shop-owners in Lower Bazaar repeatedly asserted their doubts about the implausibility of such a large-scale redevelopment project. Others resented such an idea, pointing out that tenancy and ownership claims would be very difficult to settle, given the hilly terrain, the fragmentation of property holdings over generations and complex rental arrangements in place.

"It's not that easy. Even if these buildings are demolished and rebuilt, it's not an easy task. The landscape is hilly. If the building in this lane is taken down, there is a chance for the land behind it to give in as it's hilly. Then, where would we dump the debris? There will be a lot of resulting debris after all. When I rebuilt this house, it took me two years. It was an old building and at least twenty trucks of debris came out along with five trucks of wooden bars and beams." (SI010)

"Lower bazaar, Mall Road and upwards of the bus stand… they will demolish all that and build something new. You think people will let them do that? You need to give them something first, on the basis of it, they will say, fine, go ahead. Otherwise, no one will allow it. They will have to demolish the entire market. The vegetable market. The grains market." (SI028)

Other shopkeepers were open to the idea of a redevelopment project if it provided viable alternatives, but the feasibility of such a project remained doubtful. It it could be done, they were willing to endure displacement and relocation for a few years to be re-accommodated into modern refurbished shops.

"I am fine with any viable provision made for us. Let them remove the entire Lower Bazaar market if they wish to. But they should provide us with viable alternatives so that we can make a living. About 15 years ago there were stalls created on the ridge; the one where you would find horses. I was allotted a stall. It was downhill. We hardly got customers. Business came to a standstill. Nobody could even spot the stalls. Other than that, the place was freezing cold." (SI018)

The road outside the shops in Lower Bazaar is dotted with makeshift stalls and carts selling all kinds of goods from clothes and utensils to vegetable and food vendors to services such as knives sharpening (see Images 4.13 and 4.14). Some of these vendors reported paying a daily rent to the shop-owners in front of which they were allowed to operate. However, they were referred to as 'encroachers' and a hindrance to the realisation of the Smart City by the shop owners.

Image 4.13: Vegetable vendors in the Lower Bazaar area

Image 4.14: Lower Bazaar, Shimla

PHOTOS: © ROHIT MADAN

PHOTO: © ROHIT MADAN

Image 4.15: Migrant labourers carrying supplies to Lower Bazaar shops

> **"From where the smart city will come up? They have to remove them [vendors] by all means. It can't be that smart city is also there and encroachment is also happening. For a smart city, they have to come up with smart projects. The administration has to be smart."** (SI021)

Our interactions with vendors revealed that they saw themselves as equal participants in the life of Lower Bazaar. They elaborated on the struggles of having to operate in this precarious manner. In 2017, the Municipal Corporation had launched a scheme to provide ID cards to vendors and issue them trading permits, thereby regularising their operations. Interviews with vendors revealed that a videography exercise was conducted by the Municipal Corporation in this regard, but it did not lead to any beneficial outcome for them.

PHOTO: © ROHIT MADAN

Image 4.16: Krishna Nagar house, Shimla

4.3.2 Precarious housing tenure

For many of Shimla's elite residents, Krishna Nagar was deemed to be an 'illegal encroachment' that served no purpose except to cause traffic congestion. Indeed, it was labelled as the largest slum in Shimla district by the Municipality. However, our archival searches reveal that the taxonomies of il/legality and un/authorised constructions are far more complicated that its denotation as a 'slum'. Planning archives suggest that each house in Krishna Nagar has been through cycles of authorisation, building, encroachments, subdivision, rebuilding, demolition, regularisation, and so on since the 19th century. Krishna Nagar may have poor or absent infrastructure, but the messiness of property rights and regularisation certificates make clear determination of il/legality impossible and its label as a 'slum' deeply problematic.[3]

Our interviews with Krishna Nagar residents highlighted that their key concern was a precarity of housing tenure. Krishna Nagar respondents said that they were considered 'outsiders' because their forefathers migrated from present-day Punjab, thereby refusing them proof of residence and land registration documents, even though they have been living there for four generations in some cases.

This issue has been a longstanding struggle for the Valmiki (low caste) community of Krishna Nagar. One of the well-respected community leaders of the area said that they had been lobbying for their housing rights for over 35 years. He pointed to the unequal treatment meted out to the Valmiki community in comparison to elite residents of New Shimla who were also immigrants who built their homes in uninhabited parts of the city. The irony was that Krishna Nagar had metered water and electricity supply but no legal status as a recognised neighbourhood.

A second significant issue was the precarity of their houses (see Image 4.16). The overflowing drains during the monsoons and construction activity at the top of the hill aggravated landslides that led to cracks and settling in their houses. Each year a few houses would slide down the hill subjecting residents to increased precarity of living with natural hazards.

4.3.3 Tangible and Intangible Assets

Map My Assets app and CAM workshops[4] revealed several tangible and intangible assets valued by the citizens.

1. One of the key assets highlighted in the workshops was Shimla's built heritage. The buildings that dated back to the colonial period as well as memorable structures such as the old dispensary was identified as an iconic feature of the bazaar around which later developments took place. The religious structures such as the temples and mosques were also seen as important assets.

2. Associated with the above was Shimla's tourism industry which was identified as a key asset that needed to be nurtured and placed at the core of all planning efforts.

3. Lower Bazaar itself was seen as an asset. Participants described the look and feel of the place, the 'charm' of the bazaar as a valuable identity of Shimla. This meant that any redevelopment plan should preserve this charm by emulating the experience of a stroll through the bazaar.

4. The slow loss of traditional ways of building was seen as a regrettable loss of asset that should be revived. Participants reminisced about the use of *'dhajji'* – a mixture of different kinds of crushed stone and clay – as a building material that was resistant to landslides and earthquakes. It was later discarded in favour of brick and mortar as the construction technology evolved. While this allowed people to build beyond two storeys, it also compromised on the durability of the buildings in a mountain setting.

5. An important asset was proper drainage – the lack of which across Shimla had increased landslides and pollution of its natural streams and rivulets. The participants identified the central and state level governments as key actors in this, while commenting on the limited powers vested in the hand of the city-level administrators.

6. In Krishna Nagar, a key asset was the formal sector jobs held by the sanitation workers who resided there. This allowed them to receive loans from their banks and some security of income in the form of salaries and pensions.

7. Krishna Nagar residents identified urban basic infrastructures as future assets which they desired. From basic infrastructure like roads and drains to earthquake and landslide resistant buildings and secure housing tenures, everything was described as a future asset that would be valued.

PHOTO: © ROHIT MADAN

Image 4.17: Main Road in Krishna Nagar

4.4 Summary findings

PHOTO: © ROHIT MADAN

Image 4.18: Krishna Nagar lanes

Our research in the three cities suggest that most groups living with the change induced by the Smart Cities projects were living in some form of precarity. Whether this was to do with eviction anxiety for hawkers and vendors seen to be in the way of smart roads (Nashik) and junction improvements (Jalandhar), loss of green spaces (Jalandhar), precarity of housing tenure (Shimla), or loss of cultural and religious heritage (Nashik), most respondents in our interviews were living with the impacts of a large-scale centralised vision of a smart urban future from above.

It was clear that the nomenclature of 'encroachers' that the municipalities used for hawkers, vendors, migrants and other marginalised cities had been central to how they were excluded from the Smart City projects and were supporting their lives and livelihoods against all odds in the city. It is also clear that while slum clearance and city beautification projects are not new and are repeated in each new cycle of urban policy initiative, it was clear that the scale of the initiatives and therefore its impacts created new kinds of struggles for those already marginalised.

Asset Mapping revealed that economic value of land, resources and labour are a concern, citizens have a much broader understanding of assets including memory, belonging, heritage and legacy. Most of them value the cultural, religious and built heritage not for their economic exchange value in real estate; rather in terms of a sense of identification with the city. These are framed in terms of repairing and maintaining existing infrastructure, sustaining local economies, and leaving a legacy of heritage in the arts, culture religion, and local ecologies for future generations.

Chapter 4: Notes

1 Learning From Small Cities. 'Nashik Godavari Community Asset Mapping Workshop Report'. Accessed 24 October 2021. https://www.smartsmallcity.com/news/2019/8/9/nashik-godavari-community-asset-mapping-workshop-report.

2 Learning From Small Cities. 'Jalandhar Burlton Park Community Asset Mapping Workshop Report'. Accessed 24 October 2021. https://www.smartsmallcity.com/news/2019/8/26/jalandhar-burlton-park-community-asset-mapping-workshop-1.

3 Datta, Ayona. 'Simla "below Cart Road": Biographies of Houses in the Margins of an Imperial Urban Age'. Learning from Small Cities, 2019. https://www.smartsmallcity.com/blog/2019/9/7/simla-a-cosmopolitan-biography-of-houses-from-below.

4 4. Learning From Small Cities. 'Shimla Krishna Nagar Community Asset Mapping Workshop'. Accessed 24 October 2021. https://www.smartsmallcity.com/news/2020/3/26/shimla-krishna-nagar-cam.

5. Conclusions

The findings from the *Learning from Small Cities* project can be collated under the following themes:

5.1 The 'Smart City' is locally varied, complex and diverse

The idea of the 'Smart City' is varied and diverse in local contexts, since 'smart' often means 'doing things better' for its residents. While the Smart Cities Mission imagines 'smartness' mainly through large-scale infrastructure and redevelopment projects, urban local bodies need to be sensitised to the varied meanings of being and becoming smart through the everyday struggles and negotiations of residents living with change on ground.

Marketed as an upgrade of inefficient urban systems, through smart technologies and digital infrastructures, the Indian State's broad definition of 'Smart' was flexible on paper. However it overdetermined a framework of projects that for policy stakeholders, international consultants and urban local bodies became mainly about restructuring small cities through a series of technological rationalities. This was enabled by sensor rich computerised systems, centralising city operations within Integrated Command and Control Centre (ICCC), alongside city-wide smart infrastructure projects focussing on security, traffic management, public transport, refuse collection, water and sewerage management. Overall, the state imagined the Smart City as the *'civic duty of citizens'* with expectations that citizens to *'learn'* how to comply with the demands made upon them by the Smart City projects (see section 2.1).

Our research found that for residents, becoming smart was a process of institutional, cultural, and social change across society that would lead to better lives and livelihoods for all. Participants mentioned that smartness was about *'creative problem solving'* related more closely to the provisioning and distribution of civic facilities, with varied opinions on what those civic facilities should prioritise. In Shimla, this included security of tenure and repair of built heritage, as well as health infrastructures for older residents. In Jalandhar and Nashik, security of livelihoods and the conservation of religious, environmental and cultural heritage were important aspects of smartness from the perspective of city dwellers.

PHOTO: © ROHIT MADAN

Image 5.1: Street scene in Jalandhar's Rainik bazaar

PHOTOS: © ROHIT MADAN

Image 5.2: Evening market in Nashik's Goda Ghat

5.2 Local markets constitute both tangible and intangible assets

Sensitise urban local bodies towards the value of asset base in everyday local street economies. Overwhelmingly our report finds that through the framework of new smart infrastructures, urban local bodies are removing vibrant street economies and sanitising public spaces. We recommend that direct channels of communication are made with local communities and labour organisations to negotiate the sensitivities on the ground, for the benefit of all.

Our research found that urban local bodies often see local assets in small cities largely as monetisable resources that would lead to competitive advantage at a national scale. They largely ignore already existing, everyday street economies that create vibrant public spaces and provide sustainable livelihoods to marginal communities. In the drive for planned and orderly Smart Cities, municipalities however designated no-vending zones, attempting to evict slum dwellers, remove local bazaars, and demolish auto-rickshaw stands to make way for 'Smart Road', traffic junction improvements, Riverfront developments and Sports hubs. This was seen in the redevelopment of Lower Bazaar in Shimla (see section 4.3.1), the construction of the Smart Road in Nashik (see section 4.1.2), and the diminution of Burlton Park's green space in Jalandhar (see section 4.2.1).

This is putting marginal livelihoods, small-time entrepreneurial activities and local market economies at risk, as well as diluting community stakes in public spaces. Local markets constitute both tangible and intangible assets for small cities in terms of sustaining livelihoods, social exchanges, affordable food and clothes, as well as a local sense of identity and culture. We recommend that Municipality and Smart City representatives establish direct channels of communication with community, vendors and trade organisations in order to negotiate more diverse modes of Smart City redevelopment that champions local markets and proactively enables their flourishing in public spaces.

5.3 Small scale repair of existing urban infrastructures

Focus on small scale repair and maintenance of existing infrastructures, while minimising the negative impacts of new largescale, citywide infrastructure projects. While small scale repair work might sustain and maintain lives and livelihoods that are already precarious, large-scale projects run the risk of increasing the struggles and precarity of marginal citizens.

The large scale changes of the Smart City projects across the small cities was seen by residents as disruptive and unnecessary at times. Residents felt that the investments could be more positively impactful if focussed on the repair and maintenance of existing urban infrastructures. For example, in Jalandhar, local stakeholders questioned the need for a cycle track when sanitation collection was a higher priority. In Nashik, the disruption caused by the long-drawn out construction of a Smart Road was a source of frustration, particularly as residents argued that the pre-existing road was already satisfactory. In Shimla, the redevelopment of Krishna Nagar where most of its sanitation workers were settled was deemed ineffective without building resilience of housing stock against natural threats and hazards.

Participants in all three cities were very much in favour of urban improvements that would lead to safer and more reliable water and electricity, better sanitation, and improved building and infrastructure. Our findings suggest that often community resistance to Smart City proposals was not based on opposition to change per se, but on a lack of engagement from city authorities with the impact of these changes on significant, often intangible assets. At Burlton Park, Jalandhar, for example, participants lamented that their park had come to be seen as a potential source of revenue for the municipality, whereas they saw it as a key asset in their everyday lives, for their well-being, essential to recreation and social reproduction, and important for the city's cultural heritage (see section 4.2.1). In Shimla, although local businesses and traders were supportive of the need to repair the built heritage, they were sceptical about the implausibility of large-scale demolition and rebuilding (see section 4.3.1).

PHOTO: © ROHIT MADAN

Image 5.3: Historic neighbourhood around Nashik's Goda Ghat

5.4 Connections between local ecologies and religious/ cultural/built heritage

PHOTO: © ROHIT MADAN

Image 5 4: Livelihoods and social exchanges along Nashik's Goda Ghat

Focus on the connections between local ecologies and religious/ cultural/built heritages to address sustainability from the ground up. Although Smart City projects engage in a rhetoric of sustainability; local ecologies of smaller cities around rivers, urban green spaces and natural landscapes are often the collateral of these projects. Focussing on sustainability from these smaller scales and sites could create more healthy and liveable small cities.

The relationship between Smart City projects and local ecologies is one of the most contentious areas of the Smart City Mission, and urban change in general, bringing into conflict different stakeholders particularly demarcated by class and caste as the poor are increasingly expelled from areas in order to create 'green spaces' for wealthier users. Facing the climate change emergency, Smart City discourse globally is now paired with environmental rhetoric, uncritically emphasising the benefits to the environment by switching from analogue to digital. This was seen in city proposals where 'smart' would also bring 'sustainable' or 'eco' solutions to India's urban challenges. Projects claimed to address environmental priorities through an efficiency and urban managerial framework, rather than engagement with the interconnected nature of local histories, cultures and ecologies.

For example, the Nashik Smart City proposal discussed the linked themes of environment and sustainability in relation to the city's water and sewerage systems, with concern centred on meeting the demands of a growing city. The Godavari River was seen as a commodity resource that should be properly protected, managed, and distributed even in the fulfilment of spiritual and cultural needs. Similarly, the Jalandhar Smart City Proposal makes specific reference to improving environmental standards like air quality (e.g. cuts in CO2 emission), but the environment is also discussed as aesthetic measures (e.g. cleaning and paving streets). In Jalandhar's Burlton Park, Smart City redevelopment viewed green spaces as economic growth nodes for sports investment. In Shimla, the environment is a central point of contestation for its future. Its fragile mountainous ecology, which is subject to frequent earthquakes and landslides, is already overdeveloped to cater to the tourism industry resulting in heavy pollution and water resource depletion. Yet the Smart City projects aim to demolish historic built structures in Lower Bazaar and build multi-storeyed buildings to further increase its commercial viability.

In order to truly address climate change issues and create sustainable small cities, we recommend the need for urban local bodies to focus on the connections between local ecologies and wider environmental issues. To do so, they should i) regularly audit existing assets through a framework of intangible, cultural and environmental heritages (rather than just economic value per se); ii) establish priorities in consultation with residents; and iii) provide support for communities affected by urban redevelopment.

5.5 Small cities are an asset base for the national scale

Recognise the small city itself as an asset that offers the possibilities of healthy, liveable, and sustainable lives and livelihoods. Our research highlighted the importance of championing tangible and intangible local assets (such as riverbanks, local markets, migrant housing, and local green spaces) that go beyond their economic value in creating the small city as an attractive place for marginal and middle-class citizens alike. These ordinary assets should be recognised as everyday basic, human rights for all.

The small city enables *scalar efficiencies in governance and planning.* Residents noted that *'the smaller the city, the better you can plan'* because of the ability to pay attention to detail. They argued that these cities could be rebuilt by 'starting small' – focussing on smaller infrastructural innovations such as in repair and maintenance, could produce more impactful and socially sustainable outcomes.

The small city is an asset since its *size matters.* Residents noted that the size of population of the small city meant that it had strong community networks, stronger civil society and therefore more effective local democratic practices. This can facilitate deeper engagement and stakeholder consultation leading to more nuanced understanding of the intangible value of urban spaces in terms of their cultural history and present use.

Finally the small city is an asset because of the *speed with which socially sustainable and impactful benefits can be distributed* through small scale interventions. Contrary to the discourses of development in large scale Smart City projects and digital infrastructures, small cities can deliver 'quick wins' through improvements in everyday infrastructures such as improving local market space rather than demolishing it. By connecting local economies with cultural, social and built heritage developments, small cities can provide fertile grounds to learn from and replicate these lessons across scales.

PHOTO: © ROHIT MADAN

Image 5.5: Mall Road in the evening, Shimla

Report Authors:
Professor Ayona Datta
Dr Srilata Sircar
Dr Sophie Hadfield-Hill
Professor Melissa Butcher
Anwesha Aditi
Dr Philip J Nicholson

Infographics: Anwesha Aditi and Varun Patil
Design: RF Design, www.rfportfolio.com
Photographs: © Rohit Madan, www.rohitmadan.com

This report is funded by:

Birkbeck UNIVERSITY OF LONDON
UNIVERSITY OF BIRMINGHAM
UKRI Economic and Social Research Council