Urban Governance in Karnataka and Bengaluru

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Global Changes and Local Impacts

Edited by

Anil Kumar Vaddiraju,
Satyanarayana Sangita,
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Dedicated to the memory of Dr. V.K.R.V. Rao,
Founder Director,
Institute for Social and Economic Change

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PREFACE AND ACKNOWLEDGEMENTS

The majority of papers in this book were presented at the conference on Urban Governance (Administration) Development and Service Delivery at Institute for Social and Economic Change, September 2012, jointly conducted by the Indian Institute of Public Administration, Bangalore Chapter and Institute for Social and Economic Change. We thank the Bangalore Indian Institute of Public Administration (IIPA), Karnataka for their generous grant toward the conference. We thank all the contributors to the seminar. Professor Satyanarayana Sangita (one of the editors of this volume) ably organized the seminar and helped conduct the sessions. Some time has lapsed since the conduct of the workshop and some of the authors of the papers have already published their papers elsewhere, so we could not include all the papers presented. However, that loss is more than compensated for by the new chapters on the latest issues that we commissioned especially for this book. Rajasekhar et al.'s, Sivanna and Suresh's, and Natasha Kalra's papers are newly written for this book, as is the chapter by Kala Seetharam Sridhar. We thank them all for taking the time and effort to write the papers, and revise the papers too in light of the comments provided by the editors. Once again we are grateful to them. We are grateful to the IIPA, ISEC and all the contributors to the workshop and the book. We thank the ISEC administration for facilitating the conference. Finally, we are grateful to the editorial committee at Cambridge Scholars Publishing for reviewing the manuscript and accepting the same for publication. Special thanks to Victoria Carruthers, Carol Koulikourdi and Amanda Millar for their help and cooperation. We are also grateful to M.A. Stanly and Ms. Marlene de Wilde for their diligent copy editing and proofreading. Without their help, it would not have been possible to bring all the articles to their current state. We are very grateful to them both.

We hope this book meaningfully contributes to the governance of and policy toward cities in Karnataka; especially Bengaluru.

INTRODUCTION

ANIL KUMAR VADDIRAJU
AND KALA SEETHARAM SRIDHAR

The (study of urban politics and governance) is about the study of government, institutions and public engagement in dialog and partnership with, or against, government. It is about the dynamic relationships between people, conflictual or otherwise. The volume shows that the field of urban politics cannot do other than address questions of livelihood and reproduction, space and migration and the web of relationships between state, market and citizen. Thus inevitably, it transgresses other disciplines. Centrally of course, urban politics is and always has been about power: its genesis, its acquisition and its forms and uses.
—Jonathan S. Davies and David L. Imbroscio[1]

I

It would be far from true to say that urbanization began in India with colonialism. Historically speaking, the civilization of India was urban to begin with. Harappa and Mohenjodaro were cities. As historical research progressed, we learned that the adage "India lives in its villages" is actually a product of the more recent past.[2] Another interesting fact is that

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[1] Cited from Urban Politics in the Twenty-First Century (Davies and Imbroscio, 2009:4–5).

[2] This view of India where the villages formed the solid bedrock of the civilization while it is the states based on cities that have developed, attained power, glory and wealth, seen revolutions and upheavals, and both villages and states have remained separate from each other is a view accorded to us by Henry Maine, whom even Marx follows. However, the adage that we mentioned is usually attributed to Mahatma Gandhi and while we cannot expect M.K. Gandhi to have been oblivious to the significance of the cities and power relations, what perhaps led Mahatma to say this indicates the decline of the rural and countryside during the long colonial period. Mahatma Gandhi's passion for the countryside is also the reason why the country's flagship rural employment guarantee program was named after him.

though the cities in India have existed for 4000-odd years, the changes that different historical times have made on the space are immense. It is also important to understand, in order to understand urban India, that the current Indian city is a product of many layers of past. As such it reflects the complexity of India in a nutshell. Cities in India today originated from ancient, medieval and colonial areas as well as from local princely states. Therefore their built environment, architecture, social traditions, social diversity and plurality are reflected quite prominently in their current state. Not only that, in terms of time too, cities are in different time-space matrices. This is more generally true with Indian society as such. To state this in clearer terms, today "global cities" exist along with cities that are more integrated into the local society and economy, and even within a city it is entirely possible that different parts of the city operate in distinct historical times.[3] The colonial contribution to this complexity is by no means small because colonial power and cities went together. This tradition of cities being the center of power continues today. One major fact is that the colonial propping up of the city happened at the expense of countryside, as did the flight of capital. Therefore the fact that we are 67.8% rural and only 31.2% urban does not diminish the qualitative significance of the urban.[4] However, the necessary point that emerges from this long past of urban civilization and the current predominance of the rural is that urbanization both grows and declines[5]—and that cities grow and decay, even disappear, as do civilizations themselves.

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[3] "…the city of the Third World is a city of fragments, where urbanization takes place in leaps and bounds, creating a continuously discontinuous pattern. In the fragmented city, physical environment, services, income, cultural values and institutional systems can vary markedly from neighbourhood to neighbourhood, often from street to street" (cited in Stern, 2009: 156–57).

[4] Cohen (2004) argues that if India's definition of urbanization were made more liberal, a majority of India, rather than the 31% that we observe, would be urban today.

[5] For example, Rakesh Mohan (Patel and Deb, 2006: 61–62) has this to say about India, even taking a miniscule 90-year period (we call this period so because in the *longue duree* of a civilization, 90 years is just a passing phase: "…the data over 90 years do not reveal an obvious pattern of urban growth over decades. Observing the annual rate of urban population growth …, there had been a steady acceleration of growth from 1911 to 1951, a slow down during 1951 to 1961, acceleration again from 1971 to 1981, and again a deceleration to 1991." And a somewhat increasing pace from 1991 to 2011 has been witnessed in urbanization. However, 90 years is a small slice of time over the *longue duree* in which cities and urbanisation develop and flourish.

Coming to the colonial impact per se, South Asia in totality did not witness the same amount of urbanization as, for example, Latin America did. Africa may have witnessed even lower levels of urbanization. Consequently, in the southern hemisphere, Latin America continues to be the most urbanized part of the developing world; and so there are more urban social and political movements in that region. India, the largest country of South Asia, also witnessed less urbanization than its level of industrialization would have predicted. Indeed, Mumbai, Chennai and Kolkata were the three outposts of colonial urbanization. Non-colonial cities existed in India, and exist today, as part and parcel of the local princely history of India. These cities and towns exhibit different built environments, architecture, social diversity and plurality, and a cultural and religious diversity that is remarkable and unique to India. The point we intend to make here is that the colonial impact was differential. Not all areas of the country, certainly not all cities, witnessed the colonial impact evenly.

In post-colonial times too, the Indian state paid differential attention to urbanization at different times. There was no major impetus given to transform the cities other than by moving industrialization away from the bigger cities to encourage the growth of small and medium towns (see Annez and Buckley (2009)). Also, as the overall economic growth was steady but slow, the cities have not seen rapid growth. Urbanization did not arrive on the scene till the late 1980s. The economic reforms since the 1990s have changed the scenario to some extent. The urbanization process, increases in the populations of already existing cities and the development of new urban localities have altered the situation in the states where economic growth has been rapid. Gujarat, Maharashtra, Tamil Nadu, Karnataka, Kerala and undivided Andhra Pradesh have made great strides toward urbanization.[6] However, this urbanization has largely favored,

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[6] Patel and Deb (2006), for example, note the recent growth of urbanization in India thus:

 "Most theorists now agree that unlike regions in Europe, North America, Japan and Australia, those in the underdeveloped regions have seen rapid urbanization; for example, the 2001 census informs that 43.9% of Tamil Nadu's, 42.4% of Maharashtra's, and 37.4% of Gujarat's population is urban. The same census suggests that Maharashtra leads, with 41 million of its population urban, which is 14% of the total population of the country… Additionally, of the 39 cities in the world which have registered a population over five million, 30 are from underdeveloped countries. The Indian cities in the list are Mumbai, Delhi, Kolkata, Bangalore, Chennai and Hyderabad.' (Patel and Deb, 2006: 2–3.) As per Census

again, the large cites in which the earlier public and private sector industrialization took place. In place of the public sector, the liberalization reforms brought export-oriented private industries and new wealth. This new wealth, however, is unevenly distributed, leading to new poverty and therefore a severe escalation of urban inequalities, besides raising an entire range of issues for governance, sustainability, citizenship and wellbeing. The paragraph below gives a glimpse into this state of affairs:

> Much of the global assembly line and finance capital markets facilitating exports and foreign investment are located invariably in the primate metropolises of those countries. Globalization has increased the share of these cities in export processing and has led to a proliferation of informal economic activities which support and subsidize export production. This has resulted in significant expansion of the manufacturing proletariat and segregated workforce with men working in basic and women in consumer industries. There is also an excessive and visible growth of tertiary sector. (Kidwai, 2009, 116–17)

This is the current case with urbanization in India in general and Karnataka too. The above paragraph particularly summarizes the urban economies of major cities such as Bengaluru in Karnataka. The problem, however, with such a description of the urban political economy approach is that it does not provide us with any clues as to how to solve the immediate urban governance problems at hand. Therefore, this book does not adopt any particular theoretical approach. We do not, for instance, see the contributors as either approaching reality or explaining the empirical findings from any one theoretical perspective. The studies are primarily empirical. That being the case, the time-honored theories in political economy[7] such as dependency, the world system and the internationalization of capital, or even the globalization theory are not sufficiently approached or addressed in this volume. This is a major lacuna as well. In a sense,

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2011, Tamil Nadu, Kerala, Maharashtra, Gujarat were, respectively, 48%, 45% and 43% urban.
 The process of urbanization is supposed to have gained even greater momentum since the 2001 census, and the recent 2011 census, for example, puts Karnataka's urbanization at 37%. That of metropolitan agglomerations has been increasing particularly by leaps and bounds.
[7] Mike Geddes, for example, provides a good summary of critical approaches to urban politics (2009, 55–73). Not only this, the theoretical developments in urban politics in the South need to urgently address the empirics, and empirically oriented social science needs to catch up with theoretical developments.

given the strong empirical grounding of the contributions, an equally theoretical orientation on either side of the spectrum would have contributed positively to both enriching empirics and theories.

The major advantage of the empirically driven articles is that they can address policy issues better. For example, the dependency theory or world system theory, or even the internationalization of capital theory, do not address the urban policy in a major way, though they attempt to explain the reality from a certain standpoint. Considering all the chapters in this volume, only Sivanna and Suresh's contribution addresses the question of a theoretical approach in that it follows the explanatory/ normative paradigm of New Public Management. We do not speak of post-modernist theories here. The studies presented here are light miles away from that, however advantageous the post-modern approaches are.

Besides this, we also make no attempt at analyzing urban sociology in this volume. Time-honored questions of language, caste, community, religion, ethnicity and culture and related political issues are hardly addressed in this book. As one can observe, cities are often also divided on the lines of caste, with slums often constituting the spaces where most of the socially marginalized sections live. These do not have secure housing and hardly any civic amenities. In this case, however, it is paradoxical that cities at the same time provide anonymity and access to modernity, which is supposed to dilute the hierarchy of caste, though this proposition still needs to be soundly established empirically. Inter-commensal intermarriage among castes is still very low even in the modernity of cities. Cities are repositories of a high quality of both traditional and contemporary culture. We have to admit that there is no paper in this volume that addresses the caste inequality in the cities, which we admit is important. All that can be said is that much work needs to be done in this direction too.

Before we conclude this introductory section, we have to address the interdisciplinary nature of this book. Governance as such is an interdisciplinary approach; for example, many new, and some old, governance theories model themselves on neo-classical economics. In the following paragraphs, we look briefly at the absence of concern toward increasing problems of urban reality in some disciplinary approaches to the social and political reality in India.

Of all the areas of urban studies, urban governance and urban politics have received the least attention in the Indian context. The areas of studies in urban governance where there is a critical shortage belong to the implementation of 74th amendment to the Constitution, urban citizenship and urban service delivery. In the first, there are few sub-state capital level studies, and whatever writings do exist, they belong to the tradition of

focusing on the metropolitan regions. Urban service delivery and urban citizenship too are highly neglected areas in urban studies: Sridhar and Reddy (2010) is one of the few studies focusing on the state of urban services in India's cities, taking the cases of Bengaluru, Jaipur, Ahmedabad and Kolkata. Though in the last few years there were spectacular urban movements in the national capital Delhi, such as the civil society movement for greater accountability in governance and against atrocities on women, these have not translated into the disciplinary writing of political science in India. The discipline of urban politics is virtually non-existent in India, with honorable exceptions.[8]

In contrast, however, the public administration has addressed some of the issues pertaining to urban conditions. The leading institute of the discipline in India, the IIPA (Delhi), publishes a journal devoted to urban issues titled *Nagarlok*. Of late, decentralization scholars have begun to work on urban governance issues and civil society organizations have been mobilizing and spreading knowledge on urban sustainability, urban service delivery and governance issues in a big way.

II

This book deals with urban governance and policy in Karnataka. Overall, urban governance and decentralization issues are addressed for Bangalore; while we have three chapters devoted to urban governance in Karnataka as a whole, the majority of the articles deal with Bangalore. There are two points to draw attention to here. First, the overall urbanization in the state of Karnataka, at 37%, is above the national average of 31.2%. Second, the primacy of Bangalore for Karnataka is enormous in terms of polity, economy and governance, and society (see Paul et al. (2012) to understand Bengaluru's contribution to the state's investment, economy and public service delivery). Bangalore stands atop Karnataka quantitatively. In terms of sheer size, Bangalore consists of more than eight million people, and it is also eight times bigger than the nearest city in terms of size, Mysore. Therefore the prominence of Bangalore city for urban Karnataka cannot be exaggerated. Karnataka in general and Bangalore in particular are global centers for software production and export, and are together called the silicon valley of the

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[8] This is in consonance with Richard Stern's argument in "Globalization and Urban Issues in the Non-Western World" (Jonathan and Imbroscio, 2009: 153–69).

global South.[9] Therefore it is very much in the fitness of the things to focus attention on Karnataka in general and Bangalore in particular.

The second point to be noted is that given the importance of the urban phenomenon for Karnataka's economy, polity and society, the state, in 2009, formed an Urban Development Policy. While the majority of Indian states do not have a clearly spelled-out Urban Development Policy[10] at the state level, it is possible that urbanized states such as Tamil Nadu, Kerala, Maharashtra and Gujarat have similar policy thinking. Often urban development in the country is haphazard, ad hoc and unplanned. While one may assume that to have clear policy thinking is indeed itself an achievement for the urban question in India, it is hardly an advantage that the state's Urban Development Policy has not been finalized seven years after it was conceptualized. Clear thinking on urban issues helps guide the urbanization process. The 2009 document clearly underscores the urban development issues in the state. The questions of spatial distribution of urbanization, infrastructure shortfall, resources for further development and urban governance are all acknowledged and to some extent addressed. There is clear recognition that urbanization is over-concentrated in Bangalore and that a spatial distribution of the same is necessary for better regional development and a lessening of regional disparities. The question of the lack of sufficient resources at the level of different cities is also mentioned; and the importance of the 74th Amendment and the formation of Metropolitan Planning Committees for larger cities, and district planning through District Planning Committees too are recognized. The need for local democratic governance is also mentioned.

However, we do not know how many of the goals of this policy document are realized in practice. There are two broad points here: One, the nature of urbanization in Karnataka's districts is rapid. Most of this is led by the private sector, real estate, for example, which needs an enormous amount of regulation and governance.[11] The existing structures of governance fall severely short of the needs for the same. At the district and sub-district levels, governance is still done through a small section in

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[9] The nature, scope and economic impact of ICT sector in India in the context of globalization are brought out extensively by Devesh Kapur (in Nayar, 2007: 387–409).

[10] Urban Development Department. 2009. *Urban Development Policy for Karnataka* (Draft), Bangalore: Government of Karnataka.

[11] At the time of writing, in March 2016, the government of India had passed the Real Estate Regulation and Development Bill for protecting the interests of consumers and home buyers.

the District Magistrate or Commissioner's office.[12] The District Planning Committees are not yet fully active, which they should be by law. And in the bustling metropolises such as Bangalore, there are far too many parallel urban governance organizations—the local body, the BBMP, the Bangalore Water Supply and Sewerage Board (BWSSB), the Bangalore Development Authority (BDA), the Bangalore Metropolitan Regional Development Authority (BMRDA), to name a few— competing for political space. Thus, the vested interests in the urban growth of the state are far too many. And since Bangalore keeps on growing to be a powerful economic center, where political power too is centralized, we arrive at a state of affairs where political and urban interests cohabit. This renders the governance question in Bangalore enormously complex and fraught with difficulties. This book addresses only a few of the issues involved in such a complex urban phenomenon. We indeed might just be exploring the tip of the iceberg.

The first chapter by C.M. Lakshmana sets the tone for the urbanization pattern in the country as a whole. Lakshmana's chapter takes a historical approach, examining migration and concerns arising from urbanization for the environment, which sets the tone for the rest of the volume and remaining chapters. This paper makes an attempt to connect the issues of urbanization, migration and sustainable development in India. Lakshmana specifically focuses on urbanization and migration leading to sustainability problems for urban growth. Lakshmana contends that there is increasing urban-to-urban migration as well as rural-to-urban migration. He argues that the large cities in the country such as Bengaluru have been the prime beneficiaries of these trends since the liberalization and globalization of economy. According to him, the country's urbanization since the 1991 reforms has resulted in the over-concentration of population in large cities and has led to the overexploitation of the urban natural resource base, leading to questions of urban sustainability. Further, he holds that this kind of unplanned, uncontrolled urbanization is lopsided toward large urban agglomerations and metropolises, which leads to serious challenges for urban governance.

Once the broader context is set, **part one of the volume** focuses on basic services such as water supply, lakes, air pollution, and solid waste

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[12] Anil Kumar notes this with Karnataka, regarding the district level urban governance in India (Sharma and Sandhu, 2013: 318–30). A similar case can be made with other states, with the only caveat that in actively urbanizing states such as, for example, Telangana and Andhra Pradesh, the need to develop clear policy thinking is yet to dawn on policy makers.

and e-waste management. This part also focuses on social services—the delivery of pensions and the health of informal sector workers, taking the case of a particular industry as an example. **Part two of the volume** focuses on the governance of Bengaluru, given the attention that service delivery needs in the metropolitan area.

The following chapter by Devendra Babu deals with urban governance issues at the district and sub-district levels in Karnataka. As Annapurna Shaw (Shaw, 2013, 36–54) has argued elsewhere, while the smaller cities and towns are conspicuously neglected by urban policy, both by the central and state governments, the private sector, in the post-liberalization period, finds them full of opportunities to extend their business in goods and services in two senses: a) Cities themselves provide sufficient economic space for markets, and b) cities serve as links in the chain of private market expansion further into rural areas. The new purchasing power unleashed since liberalization and globalization fuels the demand for the private markets in these cities. Although Devendra Babu limits himself to the governance question, the context for this comes from the aggressive marketeering by the private sector and the apathy of the governance institutions at that level to be able to manage it.

The paper by Babu assesses the availability of basic services such as the provision of potable water, drainage, solid waste management, street lights, roads, sanitation, parks, housing, education, health, and others across the urban local bodies (ULBs) of the state, analyses the resource pattern and their availability to evaluate priorities, and suggests policy measures for better governance. Babu notes that while the functions of the ULBs as given in the Twelfth Schedule of the 74th Constitutional Amendment Act cover a wide spectrum that encompasses urban planning, regulation of land use, planning for social and economic development, and urban forestry among others, the ULBs in Karnataka prioritize only the provision of potable water, roads, street lights and solid waste disposal. While this may be a strategy given the resource constraints the ULBs face, the author draws the attention to the need for equity in the provision of services.

Following a discussion of a range of basic services, a short overview is provided by D.R Ravi of the urban environment, taking the case of Bengaluru and focusing on air pollution and the health threats, based on its study of the city. The chapter discusses the urban environment, particularly air pollution and its related threats as the outcomes of urbanization. The author observes that mortality rates and the incidence of pollution-related diseases have significantly increased in the 1990s and 2000s. The research reported in this paper uses Bengaluru as the study area, and the primary

data of 100 households in the city within close proximity to each of the air quality monitoring locations, adopting the contingent valuation method, to support its conclusions. Based on their findings, they report a high incidence of asthma, accompanied by a cough, possibly caused by dust allergy. Further, the contingent valuation shows an annual expenditure of Rs.5,650 incurred by respondents on diseases due to air pollution alone. The chapter suggests the mechanisms to combat air pollution in the interests of public health in the growing mega city.

Following this, there is a focus on basic services, which are part of the reasons for the decline in the urban environment—solid waste management and the case of vanishing lakes and overexploited ground water in Bengaluru. The chapter on solid waste management recognizes the crisis that Bengaluru has been going through. From this viewpoint, the chapter documents the profile of the waste that is generated, and highlights the policy issues of relevance. This is especially useful because the profile of the waste contains inferences for its management. Bangalore has been generating an enormous amount of solid waste and the disposal of the same for public health and sanitation purposes is a huge problem for a city the size of Bangalore. Governance authorities there have been making herculean efforts to overcome this problem. Solid waste disposal has become a serious political problem for Bangalore as the amounts of being dumped near villages are huge, and villagers in the outskirts of Bangalore, say in Mandur, Mavallipura and other places, have been registering their protests through political channels. So much so that the Chief Minister himself had to visit these areas and give a hearing to the voices of the affected. While Natasha deals with these issues in a technical manner, what is at stake is clean sanitation for the residents of the city and for areas/villages around the city. The political leadership in Bangalore finds it particularly difficult to balance these two needs. Fernand Braudel notes in his (1992:479–558) study of development in Europe's cities that in today's advanced capitalist Germany, the early conditions were such that people had to walk with stilts in the city lanes! While Bangalore's condition is better in this respect now, walking on the stilts may become a necessity in the future if the governments do not resolve this issue.

Bangalore, being a silicon city and home to such software giants as Infosys, Wipro, Tata Consultancy Services, and innumerable other software firms, generates huge amounts of electronic waste. The question of how to dispose of this—recycle the same or dump it on unfortunate localities—is an existential issue for Bangalore's governance. The chapter by Manasi provides insights into the emerging challenges of electronic waste generation based on invaluable data, both primary and secondary,

gathered for purpose of the study. Manasi's article provides the staggering figure of 12,000 metric tons of discarded electronic waste. In Bengaluru, such a magnitude raises issues of governance, environmental sustainability and legality. In this article, the current status of the management of this problem and how formal and informal initiatives are being made to grapple with the electronic waste are described based on a study. In a certain sense, the nature of this problem is not unique to Bangalore since it also exists in cities like Pune, Delhi and Hyderabad where the usage of computers and digital technologies is also expanding. Electronic waste may engulf entire metropolitan regions wherever the policies of active promotion of information and communication (ICTs) are driven forward. Manasi needs to be complimented for highlighting an emergent and futuristic problem. The paper has clear policy implications.

The chapter by Thippaiah on lakes and groundwater highlights the case of vanishing and polluted lakes, and how groundwater is exploited in Bengaluru. It maps the demand for water supply in the city, documents the information about its lakes, makes an attempt to quantify the vanished ones, taking into account the complete and partial encroachments on the lakes, and then focuses on the impact of disappeared and encroached lakes—namely, the pollution and overexploitation of ground water. Following this, the chapter focuses on policy measures to rejuvenate the lakes and their impacts. The findings are stark. This article is enormously important from the point of view of safeguarding the urban environment. Of late, the unauthorized occupation, despoiling and industrial and non-industrial pollution of lakes have literally become a "burning" issue. So much so that media, both national and local, has reported widely of the case of the burning lakes of Bangalore. That is, owing to excessive pollution, the city lakes are filled with so much effluence that they catch on fire. Therefore there is no need to exaggerate the significance of this chapter.

As promised, the final couple of chapters in part 2 of the volume focus on social services —the first one focuses on pensions and their delivery to senior citizens across rural and urban areas of the state; the other focuses on the health of unorganized sector workers, taking the case of the *agarbathi* industry (incense sticks) in Bengaluru.

With increasing life expectancy on account of improvements in health and medicine, the percentage of the elderly population (60+) in Karnataka increased from less than 8% of its population in 2001 to more than 9% in 2011, which is greater than the average for the country as a whole (which is a little above 8%, as per data from the Census of India 2011). Thus social assistance and pensions to the elderly has become important, as has

the need for equity in the provision of services. Rajasekhar et al.'s paper deals with the delivery of social security pensions in rural and urban areas of Karnataka. The paper finds that in the delivery of old aged, widow and disabled pensions there are often many problems. These include paying bribes to middlemen, delays in the Money Order (MO) delivery by post offices, and even paying some amounts to the postal personnel. The paper finds that such difficulties are in fact more common in urban localities than in rural, and the new scheme to streamline the delivery of these pensions by the Karnataka government (called the Sakala scheme) may take care of some of these problems. This article is important from the point of view of urban and rural social policy, and is a significant contribution in the sense that according to a study conducted by the Public Affairs Centre in Bangalore, Karnataka ranks number three among all 29 Indian states in providing social protection to its rural and urban citizens; the first being Kerala and the second Tamil Nadu.

The chapter by Asha examines the impact of globalization on the demand for cheap labor and the health of women workers in the informal sector, taking the case of the *agarbathi* (incense sticks) industry in Bengaluru, based on primary surveys of workers in the industry. Given that the urban informal sector occupies an important place in the economy of cities such as Bengaluru in providing employment, this chapter assumes increasing significance. The research in this chapter focuses on the health of women workers in the *agarbathi* industry in Bengaluru, presumably as a result of their working conditions. The study report documents that the women were all from the lower socio-economic groups, as we would expect. While the average working hours per day was eight, the study reported that the workers enjoyed no benefits such as provident funds, gratuities or bonuses. However, a majority of the workers complained of musculoskeletal problems such as bending their knees, moving their legs and arms, moving from side to side, and stiffness in their waist. The working conditions and health problems of the women workers in the incense industry led the author to conclude that some form of social security benefits would help to alleviate the living conditions of women workers in the informal sector.

In section II, which deals with the governance of Bangalore, the first paper by Sivanna and Suresh deals with governance reforms from a public administration point of view, examining the internal organization of BBMP in order to make it function better. They take the approach of New Public Management and address the BBMP question from the point of view of how to enable it to become more economic, efficient and effective in its operation. The paper sums up the organizational dilemmas of BBMP.

Sivanna and Suresh discuss the capacity and urban administrative structure of the in-delivery services, with a historical overview.

The paper by Kala Seetharam Sridhar deals with decentralizing the governance of Bangalore by its major governance entity BBMP into three zones. She compares this process with that of the earlier experience of Delhi, and argues that such city level trifurcation of governance entities has not proven very beneficial there, though it may yet prove advantageous for service delivery and the overall governance in Bangalore. This paper is significant in the light of the recent debates as to whether further decentralization of Bangalore governance will improve service delivery, governance and the overall wellbeing of its citizens.

Overall, what are the lessons for governance and the policy implications of the unique research in this volume? We recognize that urbanization, while being not unprecedented, is an important phenomenon that cannot be ignored, especially taking into account the fact that few countries have reached a per capita income level of $10,000 without reaching 60% urbanization. However, we need to be conscious of its impact on the environment and air quality. The urban commute and extensive use of vehicles have led to deteriorating air quality and public health. Other impacts of extensive urbanization include the vanishing lakes and the pollution of water bodies, as reflected in the case of the lakes catching fire.

While cities across the country are extensively adopting information and communication technologies (ICT) to improve the delivery of public services, and even bridge the rich-poor divide, we find that the urban local governments in the state prioritize only a few services, such as water supply, roads, street lights and waste disposal. There are presumably not many resources left for tackling economic development, poverty alleviation, urban forestry, and planning, although these are mentioned in the 74th Constitutional Amendment Act. Further, as a by-product of ICT, private firms have been disposing of e-waste indiscriminately, causing health hazards of a different nature. This book also provides documentation that the profile of the solid waste in the city is organic, and can be used to generate energy.

Some ways in which the environment can be improved is to try and enforce strict penalties on industry polluters, the burning of solid waste, and the inappropriate disposal of e-waste. One way this could be done is by educating the public about their ill impacts for public health. This may be operationalized by allocating a higher budget for information, education and communication (IEC) on waste management than has been the case thus far.

We find that the delivery and state of social services leaves much to be desired both in the state and in the city when we take the case of specific industries (e.g., incense sticks). The globalizing city of Bengaluru and the progressive state of Karnataka have much to do in this regard—to treat senior citizens with more respect and recognize their contributions (Ravindra and Sridhar, 2015). Finally, taking the case of governance of the city of Bengaluru itself, we find that based on the theoretical frameworks, it is possible for Bengaluru to become more efficient if its governance were to be trifurcated, provided certain conditions are met.

Finally, to come back to the point where we began, we have to mention that, after all, Bengaluru's governance problems are not of one day's making. Bengaluru consists of its pre-modern past as well its colonial transformation—Bangalore has its Cubbon Park and Richmond Place— and the later transformations from a public sector industry and research-dominated "science city" to an information technology and bio-technology-dominated economy and society, with increasing in-migration from all areas of the country and even abroad. Therefore Bengaluru is representative of all the complex transformations that Indian cities are going through on their way to modern urbanism. This is particularly the case since the economic reforms have resulted in both new poverty and wealth; new inequalities and new freedoms. Thus we welcome the reader to the following chapters with the reminder that different layers of time persist in the space of an Indian city. Different horizons meet and interact. Thus it is a complex phenomenon. Despite all its British-sounding streets, Bengaluru also consists of many semi-urban villages, and the process of incorporation continues. Thus this volume makes a modest contribution toward comprehending the complexity that is Bengaluru.

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Urbanization, Migration and Sustainable Development in India: Status and Concerns[1]

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1. Introduction

Urbanization is the process by which human habitations like cities and towns develop and grow into larger areas, and this process includes the movement of people from rural-to-urban areas as well as movements across towns and cities (UN-HABITAT 2002). Urbanization is the principal process among the five main processes integral to demographic transition; the others being mortality decline, population growth, fertility decline and population aging. However, currently, different parts of the world are at different stages of urbanization. Sustainable economic growth provides increased employment opportunities, and the urban manufacturing sector is likely to offer better wages than rural agriculture. Better earning potential in the urban sector attracts rural migrants, and the ensuing cycle of events results in urbanization and infrastructure development.

Historically, it is evident that sustained economic growth in the urban sector increases employment opportunities and encourages rural-to-urban migration; and economic growth tends to hasten both the growth of towns and cities as well as the process of urbanization (UNDP, 2009). The pattern of urbanization in India is characterized by a continued concentration of population and activities in large cities (Premi, 1991; Davis and Golden, 1954) where people come not due to urban pull but rural push. In the Indian context, the urbanization process is not solely

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migration-led but also a product of a demographic explosion due to natural increases besides rural out-migration.

According to the UNDP (2005), the rapid and unplanned growth of cities caused by migration and natural increases has outpaced the government's ability to provide basic services such as housing, physical infrastructure and social facilities, often causing a crises in living conditions. Cities are considered the engines of economic development, and urban-based economic activities account for more than 50% of the GDP (Swati, 2005). However, this phenomenal economic growth has not been accompanied by steps to neutralize the impact of rapid urbanization and the resultant threats to human health as well as environmental quality and urban productivity (Leitmann et al., 1992). The sustainable development of cities provides many opportunities such as employment to both educated and uneducated youth at various levels. However, a large proportion of workers, i.e., over 92% (skilled and unskilled), are absorbed in the unorganized sector (NSSO, 2007), and the majority of the labor force is concentrated in class I cities. Sadly, the unprecedented pace of urbanization and the consequent spurt in economic activities have not been able to provide suitable employment for the large majority of those who have migrated to Indian cities.

2. Key issues of urbanization

Urbanization has become a major demographic issue in the 21st century not only in India but all over the world. There has always been great academic interest in the Indian urbanization process and a number of scholars have analyzed India's urban experience, particularly in the post-independence period (Bose, 1978; NIUA, 1988; Mohan, 1996; Bhagat, 2010).

According to United Nations' projections, the global level of urbanization will rise from the current 50% to about 70% by 2050. However, the estimated level of urbanization will be lower in South Central Asia (32%) than in any other region of the world (Dyson, 2011). According to projections, the speed of urbanization in South Central Asia appears to have been distinctly slower than in the developed countries in the world. Traditionally, rural population growth was higher than urban population growth in India, but in recent years, the urban population has been growing faster than the rural population for obvious reasons. The increasing share of urban population in India's overall total, even under the impact of globalization, was lower than the average level of urban population in developing countries like Pakistan (36%) and China (50%)

but, interestingly, the pace of urbanization in India was higher than the average level of the neighboring countries of Sri Lanka (23%), Bangladesh (27%) and Nepal (17%).

3. The process of urbanization in India

The total urban population of India in the year 1901 was 25.85 million; it had increased to 44.15 million by 1940. Further, in the post-independence period, the increase in urban population in terms of size has been significant; from 62 million in 1951 to 159.46 million by 1981. During the post-liberalization period, i.e., 1981–2011, the total size increased by more than two-fold (159.46 in 1981 and 377.25 million in 2011). However, the percentage increase of urban population in the total was not significant until 1951 when it gradually picked up speed from 17.29% in 1951 to 25.72% by 1991, and further increased to 31.17% by 2011 (Table 1).

Table 1 Number of Urban Agglomeration/ Towns and their Population in India (from 1901–2011)

	No. of UA/ Towns	Total Population (in millions)	UA/Town Population (in millions)	% Urban Population
1901	1827	238.39	25.85	10.84
1941	2250	318.66	44.15	13.86
1951	2843	361.08	62.44	17.29
1981	3378	683.32	159.46	23.34
2001	5161	1027.01	285.35	27.78
2011	5497	1210.19	377.25	31.17

Source: Census of India (various)
Note: The total number of Urban Agglomeration (UA)/Towns includes out-growth cities

Even though India is among the countries with lower levels of urbanization, the increase in the proportion of urban population in the total during the period from 1981–2011 was about 8% (23.34% in 1981 to 31.17% in 2011). Strangely, about 70% of its urban population is concentrated in class I towns/cities only. This has resulted in big cities attaining inordinately large population sizes and densities, leading to a

virtual collapse of urban services and a severe degradation of the environment. Thus, the beginnings of economic development through liberalization, privatization and globalization absolutely led to a steep increase in urban population in India, especially in class I cities and only to some extent in class II cities.

4. Pace of urbanization

The urban population of India was 23.34% in 1981; it increased to 27.78% by 2001 and further reached 31.17% by 2011. As illustrated in fig.1, the increase in urban population during 1981–2011 was the highest in north, south and west regions. Also, the share of urban population in the above regions has been higher than the national average throughout the period under review. In contrast, the central and east regions had urban populations below the national average in all the census years. Incidentally, the increase in urban population even in the central and north-eastern regions in the recent decade 2001–2011 is also above the national average.

The above regional analysis of urbanization confirms that the urban population in India has not been growing equally across the region and the states. Hence, there is significant regional inequality in urban population growth because of relatively better economic development in the southern and western regions of India in recent times. The western region consists of the states of Maharashtra, Gujarat and Goa.

Though Delhi is the political capital of India, the city of Mumbai in the west is the business hub. Presumably for this reason, the impact of economic development has been more pronounced in the western region, where over 50% of the total population resides in urban areas, unlike in other regions where this percentage is much lower. The increase in the urban population in this region during 30 years of development (1981–2011) was almost 25%. Surprisingly, there was a big jump in the share of urban population in the total population in the north-eastern region also (from 16% in 1993–94 to 42% in 2004–05). The central region also registered a steep rise in the proportion of urban population, with the increase during the 30-year period (1981–2011) being about 16%. In contrast, the cumulative increase of urban population during the same period in the other regions, i.e., south, north and east, was 12, 8 and 7%, respectively.

5. Urbanization Trend in various towns by class and size

Table 2 presents the absolute numbers of urban agglomerations/towns and their urban population for the period 1961–2011. There was more than a two-fold increase in the number of towns in India, from 2,363 in 1961 to 5,161 in 2001, and to 5,497 in 2011. At the same time, there was a continuous increase in urban population, from 17.97% in 1961 to 31.17% in 2011. This clearly indicates that there has been a continuous process of urbanization in the country during the post-liberalization period, in tandem with economic development. But the striking feature of the urban population in India is that unfortunately it has been largely concentrated in class I cities. Hence, it reflects a certain degree of abnormality in that about 70% of the urban population of the country lives in class I towns/cities alone, and the remaining 30% in other class II and III towns, which is not acceptable from the point of view of sustainable development. In contrast, during the same time span, the absolute numbers as well as the population in class V and VI towns have declined rapidly, which again is a worrisome development.

Figure 1 Region-wise Urban Population in India (1981–2011)
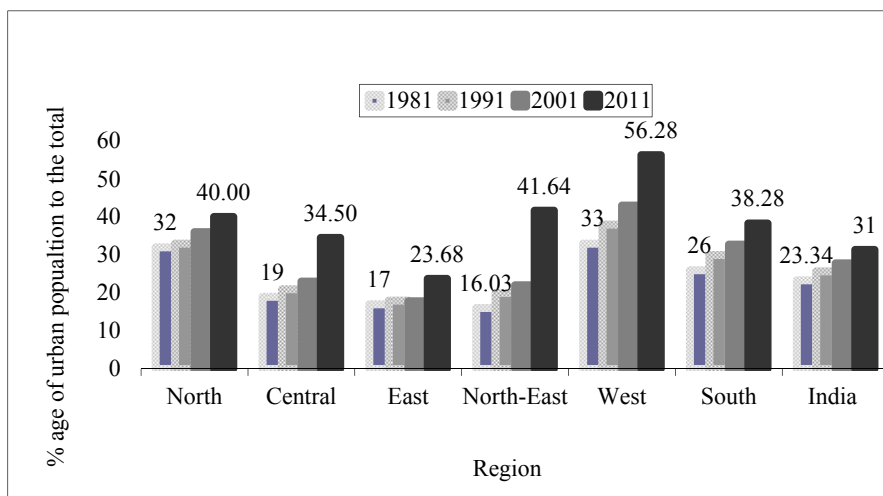
In this regard, table 2 further shows that over the years, the number of class I towns has increased three-fold, from 102 in 1961 to 393 in 2001. A similar pattern was observed in regard to the second category of towns (II,