THE SMART CITIES MISSION IN INDIA: CHALLENGES OF URBAN GOVERNANCE

MASTER OF PHILOSOPHY

POLITICAL SCIENCE

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A THESIS SUBMITTED TO THE UNIVERSITY OF HYDERABAD IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF PHILOSOPHY IN POLITICAL SCIENCE
BY

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CERTIFICATE

This is to certify that the dissertation entitled "The Smart Cities Mission in India: Challenges of Urban Governance" submitted by Sayani Malakar bearing Registration no. 17SPHL15 in partial fulfillment of the requirements for the award of the degree of Master of Philosophy in Political Science is a bonafide work carried out by her under my supervision and guidance. It is a Plagiarism free dissertation. The dissertation has not been submitted previously in part or in full to this or any other University or Institution for the award of any degree or diploma.

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DECLARATION

I, hereby declare that the research embodied in the present thesis entitled "**The Smart Cities Mission in India: Challenges of Urban Governance**" is an original research work carried out by me, under the supervision of Prof. I. Ramabrahmam, Department of Political Science, for the award of Master of Philosophy in Political Science from the University of Hyderabad.

I declare to the best of my knowledge that no part of this thesis was earlier submitted for the award of any research degree in part or full to this or any other university.

Signature of Candidate

Sayani Malakar

Date: Registration Number- 17SPHL15

Place: Hyderabad

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List of Abbreviations

ADB Asian Development Bank

BATF Bangalore Agenda Task Force

BRICS Brazil Russia India China South Africa

BSUP Basic Services to the Urban Poor

CAA Constitutional Amendment Act

DDA Delhi Development Authority

EIUS Environment Improvement of Urban Slums

GDP Gross Domestic Product

GIS Geographic Information System

HUDCO Housing and Urban Development Corporation

ICT Information and Communications Technology

IHSDP Integrated Housing and Slum Development Programme

IIR India Infrastructure Report

IOT Internet of things

IUDP Integrated Urban Development Programme

IH Inclusionary Housing

IZ Inclusionary Zoning

JNNURM Jawaharlal Nehru Urban Renewal Mission

LAN Local Area Network

MAN Metropolitan Area Network

MMRDA Mumbai Metropolitan Regional Development Authority

MMDA Madras Metropolitan Development Authority

NCU National Commission on Urbanization

NHP National Housing policy

NIIP National Investment and Infrastructure Fund

NPM New Public Management

NRY Nehru Rozgar Yojana

NSDP National Slum Development Programme

NWS Neo Weberian State

PIUs Project Implementation Units

PMGP Prime Minister's Grant Programme

PMIUPEP Prime Ministers Integrated Urban Poverty Eradication Programme

PMUs Project Management Units

PPPs Private-Public Partnerships

RWA Residential Welfare Association

SCM Smart Cities Mission

SPV Special Purpose Vehicle

UBS Urban Basic Services

UBSP Urban Basic Services for the Poor

UIDSSMT UIG for the Urban Infrastructure Development Scheme for Small and Medium Towns

UIG Urban Infrastructure Governance

ULB Urban Local Bodies

WAN Wide Area Network

Chapter 1
Introduction

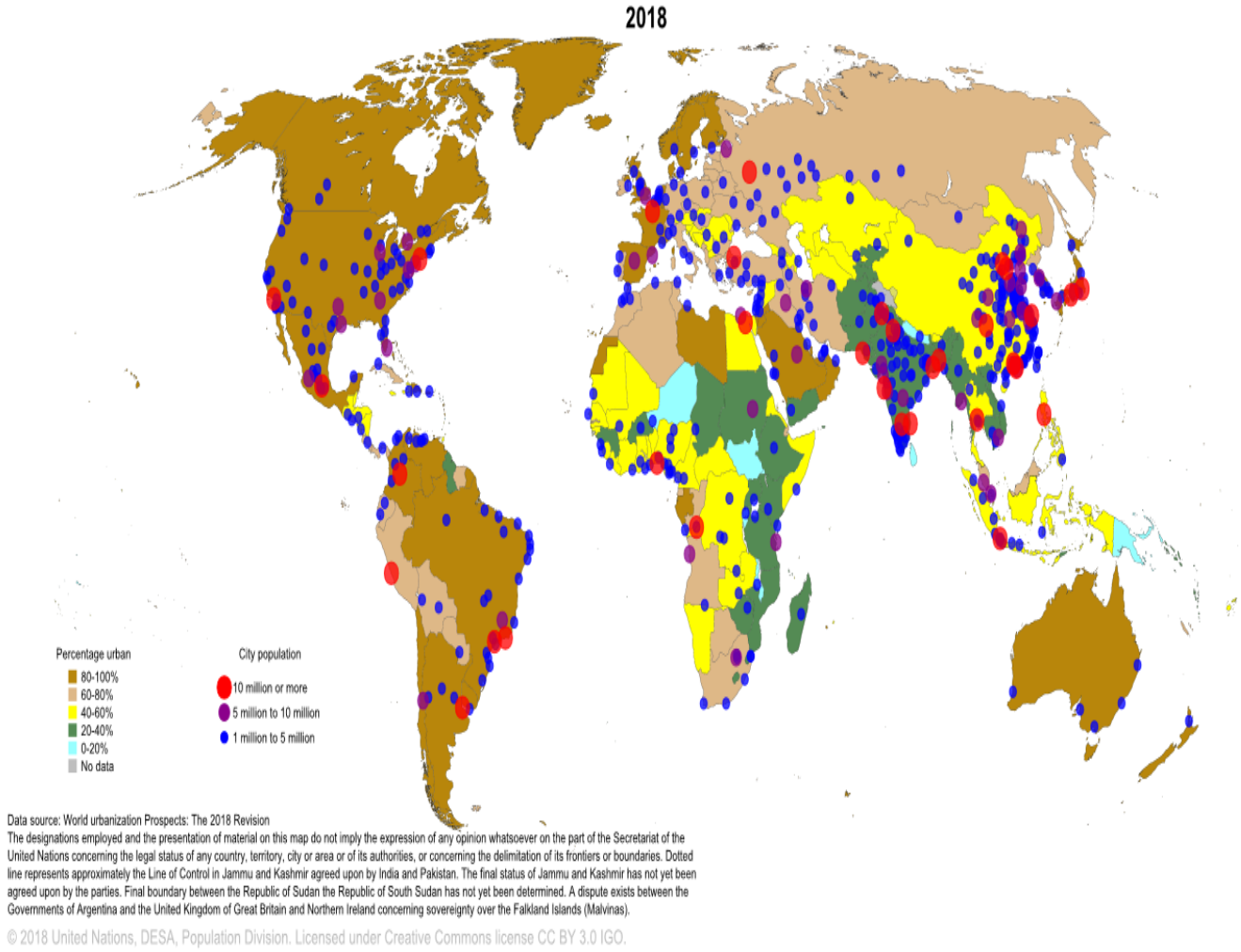
1.1 Background and motivation of research

In general terms, the motive of this research is to analyse the response to the situation of urbanization. The phenomenon of urbanization or an increase in the urban spaces occurs when the population residing in such spaces increase, either due to migration of people from rural to urban areas or due to natural growth in population. Urban spaces include cities, towns, and suburbs.

The world is urbanizing at an incredible pace. This claim has been substantiated by academic scholarship and many reports. The most recent report on this – "2018 Revision of World Urbanization Prospects" has been provided by the Population Division of the Department of Economic and Social Affairs of the United Nations in 2018. According to this report, about 55% of the world's population today resides in urban areas which are expected to rise to 68% by 2050. Interestingly enough, this phenomenon will find more prominence in Asia and Africa with almost 90% of the increase of world urban population taking place from these regions. Within these regions, the lead will be taken by India, China, and Nigeria. Projections say that 416 million urban dwellers will be added by India, 255 million by China and 189 million by Nigeria to the world population (United Nations 2018). This research limits itself to the context of India in dealing with the issue of urbanization. After Tokyo, which is the largest city today with 37 million dwellers, the second position is taken by none other than New Delhi with 29 million inhabitants. Mumbai also accounts for almost 20 million people (United Nations 2018)

To give an idea of how the urban spaces have increased all over the world, the following figure (Figure 1.1) depicts the percentage of urban and urban agglomeration referring to the spread of urban areas taking place in the world by size class, as of 2018.

Figure 1.1: Percentage of urban and urban agglomeration taking place in the world by size class



Source: United Nations (2018)

Urbanization can be a boon, owing to the proper harnessing of the capabilities of the cities, with regard to economic growth. The geographically specified space of the city provides scope for agglomeration economies which means the co-location and spatial proximity of firms, households, and institutions. Such spatial proximity reduces the transportation cost and time of inputs, outputs, people, information, ideas and knowledge leading to economies of scale, scope,

complexity, localization and urbanization. This has benefits of face to face contact, knowledge spillovers, human capital accumulation and varied consumption opportunities (Mohanty 2014). Taking advantage of agglomeration economies, cities become major hubs of economic growth. Major production activities take place in the cities where service industries and infrastructures are produced. Such production activities lead to the creation of firms and jobs that can facilitate economic growth. This economic growth seems to further the process of neo-liberalism, globalization, and the creation of a corporate economy[i] Possessing such advantages, cities become attractive zones for major corporations where they can make huge investments. Therefore, being the engine of economic growth a city becomes the most attractive location for a nation to facilitate development.

India's position with regard to urbanization projects how it can indeed be a boon in enabling economic growth. The urban areas have contributed enormously to the Gross Domestic Product (GDP). In 2007, "the GDP from the urban areas was 62-63 % which is expected to go up to 75% by 2021". Moreover, "Indian cities generate 80-85% of the tax revenues in the country" (Mohanty and Mishra 2016: 1). However, despite having the potential to contribute to the growth of the nation, Indian urbanization is accompanied by a problem – the problem of sustaining the increasing urban population.

The McKinsey Global Institute report (2010) predicts that:

> As the urban population and its incomes increase, demand for every key service will increase five- to sevenfold in cities of every size and type. And if India continues to invest in urban infrastructure at the current rate -very low by international comparison - in 20 years' time the urban infrastructure will fall woefully short of what is necessary to sustain prosperous cities. Life for the average city dweller in India would become a lot tougher (Nijman 2012: 14)

The provision of basic civic services like water supply, sewerage and sanitation, transport and the likes to the people residing in the cities seems to be inadequate. This calls for investment in urban infrastructures and provision of good quality public services to the urban population on the part of the political authority. Therefore, even when the government aspires for economic development by harnessing the potentials of its ever-growing city spaces, it cannot neglect the basic requirements of its urban population and their subsistence.

Policy initiatives of governments, time and again, have attended to the management of urban spaces. These have tried to cater to the needs of the urban population by managing the urban space in the most efficient manner. One such initiative in which this research is particularly interested in is the Smart Cities Mission (SCM) of the present political leadership. This has a very promising overtone whereby urban spaces will be managed in a specific way harnessing the capabilities of Information and Communications Technology (ICT). This implies that city planning will be associated with a kind of smartification which necessitates encompassing "the oversight of the distributed physical networks, digital data and human agencies which together will co-produce the ubiquitous information flows, and the ambient digital experiences of the future information ecologies" (Giffiths and Barbour 2016: 30) with the planners' focus on technologies capable of capturing data necessary for efficient designing of the city administration and its governance (Giffiths and Barbour 2016: 32).

The concept of 'smart city' in India found prominence in the election manifesto of the Government formed by Bharatiya Janata Party where the present Prime Minister, Narendra Modi promised-

> high growth urban centres where our cities would no longer remain a reflection of poverty and bottlenecks - rather that they should become symbols of efficiency, speed and scale and this would happen through a 100 new cities enabled with the latest technologies and infrastructure that would be built for them (Khosla 2015: 11).

To trace the history of the smart city initiative in India, McKinsey Global Institute and McKinsey India[ii] in their reports in 2010 and 2014 respectively specified the policies that the government must adopt in order to survive its urban civilization (Khosla 2015: 23). According to these reports, India must-

> nurture top 100 specialist cities focused on sectors such as tourism and manufacturing through a capital investment program of $96 per capita a year. In addition, the country could seed future urbanisation by building 19 transportation corridors linking Tier 1 and Tier 2 cities (Khosla 2015)

These would be the model for "granular growth" where smart cities would be the "engines" for such growth. The Global Smart City Council[iii] has come up with a "Readiness Guide" laying

down the guidance to be followed for operating smart cities. As such, the Smart City Council Branch was set up in Bangalore, India in collaboration with the Global Smart City Council to "accelerate growth in the smart cities sector by lowering barriers to adoption through thought leadership, outreach, tools and advocacy" (Khosla 2015: 99)

In the context of such an initiative of the government in addressing the issue of urbanization in India, this research is motivated to delve deeper into this programme. In doing so, it looks into its intricacies to find out how challenging can such an initiative be in the course of its successful implementation. This research concerns itself with the Smart Cities Mission of the Government of India (GoI) as a response to address the challenges of accelerated urbanization.

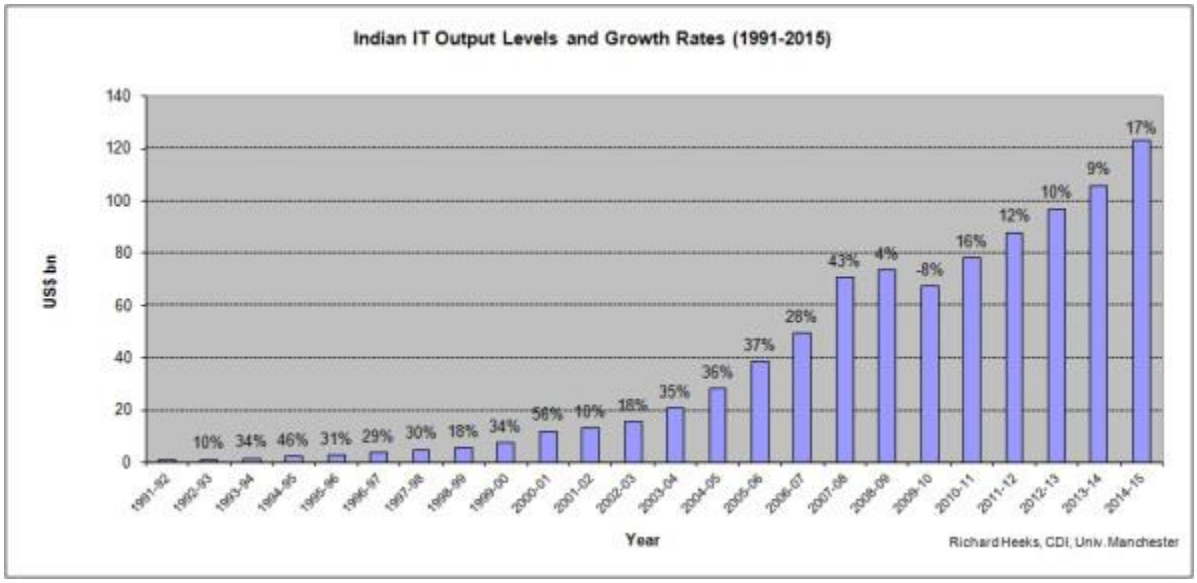
1.2 Statement of Problem

Manuel Castells speaks of the development of network society in the 21st century owing to the radical changes in communication technologies. Such technologies are organized around the internet characterizing today's "social organizations and practices" (Castells 2000: xviii). A networked society specifies new ways of getting things done that fall back on information generation, its processing and connection with the whole. What makes the smart city unique is the application of such technologies in infrastructures of service delivery; in other words, what happens in a smart city is-"the use of smart computing technologies to make the critical infrastructure components and services of a city—which include city administration, education, healthcare, public safety, real estate, transportation, and utilities—more intelligent, interconnected, and efficient" (Alwadhi et al., 2012: 41). The problems of urbanization which include inadequate and poor quality of service provision are believed to be mitigated by these special kinds of urban infrastructures essentially relying on ICT in smart cities.

As India embarks on the mission of making cities smart, its position with regard to ICT needs to be addressed, as ICT forms a core feature of infrastructure building for the upliftment of the urban population. India has been performing well in the domain of software, as an industry and as an exporter. Indians have a major contribution to the IT revolution of the United States (Singh

2002: 2). However, the overall growth pattern in software exports seems to be reducing- 40% in 2002, 30% in 2008 and coming down to 20% in 2014. The share of IT software and services in total exports remain static around 14% and 15% from 2003- 04 to 2013-14. With regard to the IT sector, production takes place more for exports than for domestic market which seems to be growing. Although the IT sector seems to be prominent in exports and in domestic consumption, its share in the overall Gross Domestic Product (GDP) is not so promising which was only 5% in 2014-15 (Heeks 2015). The following graph in the figure (Figure 1.2) represents the Indian IT output levels and growth rates from 1991-2015.

Figure 1.2: IT output and growth rate, India, 1991-2015



Source: Heeks (2015)

Many other lacunas that exist in the ICT sector in the country include- managerial discrepancy, lack of skilled labor and the poor performance of the telecom sector of the nation. Accessibility to the internet cannot be said to be commendable with many still lacking basic access to telephonic usage including the urban poor. In addition, “the dearth of telecom infrastructure”, mechanisms of coordination between networks, a “domestic internet backbone” and “proper regulatory mechanisms” are pressing issues (Singh 2003: 24-43). Further, the International Telecommunication Union, which is a specialized agency of United nations working towards the

facilitation of increased internet connectivity worldwide ranks India as 134th among one seventy-six countries with regard to development in the ICT front in 2017. In 2016 it occupied the position of the 138th country among one seventy-six nations in ICT development. In 2015, it was ranked in the 135th position (ICT Development Index 2017). Based on the indicators of accessibility, usage, and skill, India finds a position among the least connected countries (Ramachandran 2013). With this level of performance in the ICT sector, urban development depending on such technology becomes a concern. As such, there lies the responsibility on the political leadership to undertake large- scale development in this sector if the cities need to be transformed as smart cities.

Further, satisfactory performance in the ICT sector cannot be considered as the sole prerequisite for enabling the creation of smart cities. As Burte (2014) puts it, "smartness would mean more than just technology" (2014:22). The success of all the urban development programmes may ultimately depend on how well they are governed and managed in the implementation stage. In India, urban renewal missions are undertaken with the aim of effective management of urbanization. The Twelfth Five Year Plan (2012-17)[iv] addresses how the enablers for effective urban management include strengthening of planning, financing, and governance in urban management (Planning Commission, GoI). Urban renewal missions earlier to Smart Cities Mission have failed with respect to efficient planning, adequate financing, and effective governance. The landmark Jawaharlal Nehru Urban Renewal Mission (JNNURM) can be cited as an example. It aimed at "development of the cities through efficient governance, better infrastructure and improved service delivery" (Kundu 2014: 617) and failed due to managerial discrepancy, financial inadequacy and inefficient planning. The weak governance structure in Indian cities is a dawning problem by means of which urban development remains unsatisfactory. In spite of policy initiatives, "Indian cities continue to face considerable governance, planning and management challenges" (Hoelscher 2016: 4).

With the ICT sector and urban management possessing their own bottlenecks, the core emphasis of the research is on the implementation aspects of the Smart Cities Mission in India. As such, this thesis discusses the main challenges that the implementation of this mission would face from the policy perspective. Innovative measures in urban renewal programme with an emphasis on ICT are believed to introduce efficiency in service delivery and therefore upgrading the human

quality of living. However, unless the issues of poor urban governance are addressed, any innovation would fall short of success. Thus, the issue of urban planning, financing, and governance need to be problematized while dealing with urban development strategies.

1.3 Theoretical Framework

What are the principles that should guide the implementation of policy initiatives of governments? To narrow down the question, what should be the guiding principles for the implementation and functioning of urban renewal programmes, in this case, the Smart Cities Mission? It becomes pertinent here to discuss the theoretical framework of the present research. The issue at hand is designing smart cities for addressing urban problems. The way in which the government should govern, administer and manage public affairs has been the subject matter of the discipline of Public Administration and Public Policy. There have been many theoretical considerations as to this matter.

One of the prominent theoretical approaches is the New Public Management (NPM). The current literature in this area is more critical than supportive, advancing new approaches and theories of governing as developments over NPM. Osborne and Gaebler (1999) and Osborne and Plastrik (2000) lay out the principles of NPM which could introduce efficiency in governance. Some of these principles include an "anti-hierarchical and anti-bureaucratic governance", "outsourcing of public service delivery to the private players", "involving citizens in governing procedure", finding "innovative ways of public service delivery" and "minimum functioning of the state". Significant were the elements of "core, consequences, customer, control and culture" in the governance process (Dunn and Miller 2007: 348).

However, NPM was soon realized to be inadequate in ensuring an effective governance mechanism by the scholarship. Also, this new form of management faced many criticisms and many scholars claimed that there has been a demise of this management principle (Drechlser 2005). This is because it denounces the role of the state as a sole and significant actor in managing public affairs and providing public services. Such services cannot always be provided by private players their motive being profit maximization. Manning in his work (2001),

addresses the issue- whether NPM could be a successful strategy in developing nations. He gives a negative response to this question. Among other factors, one important factor is that in developing countries, the people have specific demands from the government which could not be addressed by NPM (Manning 2001).

An alternative and a development over NPM has been the Neo-Weberian State (NWS) as recognized in the current literature. The NWS attempts to develop over the inadequacies of NPM. Its proponents claim that "the new form of 'managerialism' in NPM neglects wider governmental, political and socio-cultural contexts" (Dunn and Miller 2007: 346). The core elements of NWS include the centrality of the state in providing public services, reform and enforcement of administrative law, preservation of public services, representative democracy, orientation towards the needs of citizens, direct citizen involvement in governance and professionalism in management (Dunn and Miller 2007: 346). Although it cannot be said if NWS is the way forward in public administration, it surely exposes the deficiency of NPM and calls for more research on the subject matter (Drechlser and Kattel 2008: 204).

Pertinent to this research is an understanding of what can be the guiding principles in the management of a policy initiative like the Smart Cities Mission. How should the governmental administration and management act in implementing this policy? In an attempt to understand a better and workable management strategy in smart city design, this research addresses the viability of an administrative framework which mainly is a conflict between NPM and NWS.

It has been observed that the expected challenges of the Smart Cities Mission have been widely written about.

Many reports have come up which have dealt with this mission. These have addressed the challenges to be faced in the course of its implementation. However, these did not focus on the question that what can be the administrative model followed in urban management under this mission which can ensure overcoming of the many challenges.

- A report by the Center for Study of Science, Technology and Policy[v]- Reconceptualising Smart Cities came out with recommendations which included the creation of expert

groups and Indian Institute of Urban Managements to study issues pertaining to the Smart Cities Mission (Bhattacharya et al. 2015)

- Hoelscher and Rumi Aijaz (2016) acknowledging the challenges to be faced by Smart Cities Mission gave some major recommendations to its end. The author claimed that government departments should take increased responsibility in the implementation of smart city projects. Further, ideas should be exchanged at many levels like between residents and government and coordination should be ensured between different governmental levels (Hoelscher and Aijaz 2016).
- Burte (2014) recommends that the basic problems that a city faces must be fixed before a "techno-managerial development" is ensured with regard to Smart Cities Mission (Burte 2014)
- Mohanty and Mishra (2016) while dealing with the reference framework for Smart Cities Mission make major recommendations on how this programme can be a success drawing extensively from best national and international practices (Mohanty and Mishra 2016).
- A Report by Brazil Russia India China South Africa- Third BRICS Urbanisation Forum, 2016) talks about smart cities should have human aspects again drawing from international experiences (BRICS 2016).

These studies focus on how smart cities can be a success in India coming out with a number of recommendations. However, they do not address the issue that in the implementation of any development mission, which governance model or administrative framework is followed may have a determinant role in ensuring its success. Accordingly, this study attempts to explore how the overall administrative framework in a development initiative may have a stake in the workability of such programmes. To this end, it deals with NPM and NWS.

1.4 Research Question

Drawing upon the preceding discussion, the research question of this work is as follows:

What are the challenges of urban governance that the Smart Cities Mission in India would face in its successful implementation?

To this end, the objectives of this research would be

i. To understand how inefficiency in the dimensions of planning, financing, and urban local governance can pose challenges in the successful functioning of urban renewal programmes like the Smart Cities Mission in India.
ii. To discuss how administrative frameworks of NPM or NWS would ensure successful implementation of urban renewal policy initiatives like Smart Cities Mission in India.

1.5 Scope of the Study

The scope of this study is limited to the Smart Cities Mission in India. It studies the details of the programme, its objectives, specificities, and implementation strategies. It addresses the achievement of the programme and discusses its challenges and shortcomings critically. As a reference to the performance of urban renewal programmes in India, the JNNURM will be discussed with respect to how the political leadership fared in planning, financing, and governance of the urban space by virtue of this mission.

1.6 Variables and Data to be used

This research will draw upon a number of variables and data for fulfilling the objectives mentioned. The variables would include the aspects of planning, financing, and governance and

their detailed information and understanding with regard to urban management. Quantitative data as to world urbanization trends and prospects, Indian urbanization trends, Indian urban population growth, the performance of the IT sector, accessibility to the internet and others will be considered. In addition, qualitative and quantitative data pertaining to the achievements of JNUURM and Smart Cities Mission will be referred to.

1.7 Methodology

The proposed research will be exploratory and will rely on an extensive review of literature and online desk research. Review of existing literature on how urban management takes place in India along with its shortcomings can be suitable towards achieving the objectives of this research. Rich scholarship on the understanding of the concept of smart cities, factors determining the success as well as the failure of urban innovative developments in the form of smartification of cities and viability of a governance model for urban management effectiveness seem to be highly feasible and applicable to this research. Data regarding the importance of variables of planning, financing, and governance in urban management demand falling back on arguments provided by the literature. In order to examine factors that could be a challenge to SCM, it is required to understand how the scholarship evaluates earlier urban renewal programmes and urban management as a whole.

To substantiate the arguments gathered from the synthesis of literature, it will be effective to rely on online desk research. This method refers to how data can be collected from existing sources made accessible online. Contrary to field research this research technique involves less cost and eliminates hassles (Management Study Guide). Relevant to the present online research on urbanization trends, India's response to this government's reports on urban management, the performance of JNNURM and SCM can be provided by online desk research. For instance, in order to attain detailed data on the basic specificities of SCM in India, its guidelines, implementation strategy, achievements till date, statistical records and the likes along with newer updates on the programme, the website of the mission was easily accessible online and is useful for understanding the intricacies of the project to a researcher.

As such, review of the literature and online desk research are deemed to be more suitable for the present work and are therefore resorted to.

1.8 The layout of Discussion for the Research

This research is categorized as follows:

Chapter 2

Understanding the Concept of a Smart City

In this chapter, a comprehensive review of literature is attempted to understand the meaning, characteristic features, challenges and the framework for implementation of smart cities. It highlights the themes that emerge in the literature which deals with the concept. It also brings in the understanding of smart city concept by International Organizations like the United Nations, World Bank, International Standardized Organization (ISO) and Brazil Russia India China South Africa (BRICS).

Chapter 3

Urban Management in India: Lessons from JNNURM

This chapter points out how the issue of urbanization has been dealt with in the Indian context. To this end, the chapter highlights the condition of urbanization and urban management in India. There is a brief explanation of how five-year plans have addressed the issue of urban management and what policy initiatives have been undertaken in this regard.

It focuses on urban renewal missions in India with a special emphasis on the landmark policy initiative of JNNURM. This is to analyse critically how the political leadership has dealt with

urbanization in the form of urban renewal, and what challenges it has faced in the successful implementation of such a programme, so that such issues can be referred to in the next ambitious project which is the Smart Cities Mission in India. The chapter relies on extensive review of literature and desk research.

Chapter 4

Challenges in Successful Implementation of SCM in India

This chapter puts forward the issue that in the initiation and implementation of the SCM, there will be many challenges that the government would face. It is beyond sufficiency that only relying on ICT, which is a major feature of smart cities, would solve urban problems. There will be challenges in the form of planning, financing, and governance of urban development. The critical analysis of the JNNURM in the previous chapter supports the claim that the issues of planning, financing, and governance stand as major challenges to urban renewal.

In analyzing each of these issues, some important political implications are addressed. For instance, urban planning in India as evident from the cases of JNUURM and now from the SCM seems to be in tune with neo- liberal ideas having its implication for exclusionary development. Again in the context of financing urban renewal programmes, it seems that the local government bodies are crippled with regard to financial autonomy. This brings up the issue of division of power between the higher levels of government and the lower levels. Again in urban governance, public participation seems to be unsatisfactory and exclusionary in nature. How these issues will stand as challenges in the successful implementation of the SCM to mitigate urban problems is discussed in this chapter. This chapter relies on an extensive review of literature and desk research.

This chapter also presents the theoretical framework of the research. It discusses frameworks of governance that can be considered in SCM implementation. To this end, it discusses at length how the principles of NPM seem to be in congruent with the principles governing the functioning of SCM. It goes on to discuss the viability of such principles in the success of urban renewal in the Indian context. It then discusses the principles of NWS to understand how this public policy approach suits the functioning and success of SCM in India.

Chapter 5

Conclusion

This section summarizes the research and its findings. It offers a summary of each chapter and outlines the findings of this research. It also points out the limitation and further scope of the study.

The aim of this introductory chapter has been to locate the research problem and point out the research question and objectives accordingly. It highlights the theoretical framework of the study. It gives an idea of how the discussion proceeds. The following chapters proceed accordingly. Before dealing with other things, the discussion opens with an elaborate understanding of the concept of smart cities

Chapter 2
Understand the Concept of Smart Cities

2.1 Introduction: Basic elements in Understanding the Concept of a Smart City

With Smart Cities Mission (SCM) being the central focus of the research, this chapter lays out a detailed and factual understanding of the concept of smart cities. To this end, a comprehensive review of literature is attempted to understand the meaning, characteristic features, challenges and the framework for implementation of smart cities. It highlights the themes that emerge in the literature which deals with the concept while bringing in how International Organizations like United Nations (UN), World Bank, International Standardized Organization (ISO)[vi] and BRICS (Brazil, Russia, India, China, and South Africa) deal with this concept.

The National Institute of Urban Affairs (NIUA), a premier research institute in India working on the domain of urbanization, conducted an exploratory research on smart cities titled- "Exploratory Research on Smart Cities, Theory, Policy and Practice" (2015) and in explaining the concept, captured its theoretical and factual dimensions. This study serves as a good reference point in presenting a broad overview of the idea of a smart city.

The NIUA study observed how the concept of smart city evolved over a time period of twenty years with web-based technology[vii] making its inroads in city planning. In defining smart cities, it adopted Kipling's method of 5W1H, that is addressing the elements of why, what, who, how, when and where. This study, therefore, attempted to answer the questions -Why are smart cities required? What are the components of a smart city? Who are the key stakeholders in creating smart cities? How can smart cities be created? When and where smart cities are to be created? (National Institute of Urban Affairs 2015). Some of the key findings to these questions are discussed as follows-

2.1.1 Why are smart cities required?

Smart cities are required for improvement in economic growth, sustainable environment, quality of life and governance in the urban sphere (National Institute of Urban Affairs 2015)

2.1.2 What are the components of a smart city?

The study specifies the components of a smart city to be- "government, mobility, services, community, economy, natural environment, and built environment" (National Institute of Urban Affairs 2015)

2.1.3 Who are the key stakeholders in forming smart cities?

The stakeholders are responsible for the creation of smart cities and this study identifies four main groups of stakeholders in smart city development- "people, government, industry, and universities". Along with these major groups, there are other "lateral" groups like planners, developers, financial organizations and Non-Governmental Organizations (NGOs) (National Institute of Urban Affairs 2015).

2.1.4 How smart cities can be created?

This study finds that all the literature on this issue emphasized the application of Information and Communication Technology (ICT) in various domains of city governance and city development. There are other requirements also as to the creation of smart cities which include "investment in social capital", integration and coordination of various stakeholders (National Institute of Urban Affairs 2015).

2.1.5 When and where to create smart cities?

It claims that a smart city is a "futuristic concept". Smart city applications aim at improving urban conditions through technological applications which is a continuous process for city life improvement (National Institute of Urban Affairs 2015).

The above questions as answered by the NIUA research help developing a preliminary understanding of the concept.

2.2 Trends in understanding smart cities

This section provides a further understanding of the concept of smart cities as deducted from the review of the current literature on the subject. The literature chosen is selected from the time period between 2000 and 2016 to know how it was conceptualized in the most recent literature.

A basic reading of the literature on smart city gives rise to certain themes which are followed in dealing with the concept. Firstly, a smart city is essentially an urban innovation; a policy initiative which is undertaken to solve the complex issues that the urban space and urban population face. Secondly, these urban problems can be mitigated through the applications of which a smart city will be composed of and these applications are necessarily technology driven. Third, in order to initiate the functioning of the smart city applications, significant changes are required in the governance of the city which falls back on citizens' participation in the functioning of a smart city. Lastly, to enable the proper implementation of a smart city programme, to ensure the proper functioning of its applications and to aspire for its success, a lot of challenges have to be overcome by the major stakeholders of this project. The proceeding discussion elaborates on each of this theme.

Meijer and Rodriguez Bolivar (2016) claim that the current available literature on smart city has different perspectives on the subject. They question whether smart city calls for smart technology, smart people or a smart collaboration? Does it call for a transformative or incremental change in urban governance? Does it rely on better outcomes or on a more open process in governance? Combining all these aspects, they understand the smart city as "crafting new forms of human collaboration through the use of ICTs to obtain better outcomes and more open governance process" (Meijer and Bolivar 2016: 392)

For Nam and Pardo (2011), a smart city is a "contextual interplay" between "technological innovation, managerial and organizational innovation and policy innovation" (2011: 282) . Their work points out that- there has been too much emphasis on the aspect of technological innovation in defining smart city neglecting the latter two aspects. As such, it must be realized that the smart city mission involves innovation also in the management and policy fronts where technology is used only as a tool (Nam and Pardo 2011: 282). Again Chourabi et al,

acknowledge that smart cities are necessary to solve problems of urban life caused by rapid population growth (Chourabi et al 2012: 2291).

It is imperative to mention that whatever might be the definition ascribed to the smart city by different authors; every work starts with the concern that with rapid growth in urban population, providing basic services and good quality life to people will be difficult. This is mainly because urban infrastructures will be inadequate in meeting the needs of the ever-growing population. As such, a smart city mission will be a solution that would uplift the standard of living by providing good quality services to the urban population through infrastructures relying specifically on Information and Communications Technology (ICT)

Utmost importance has been given to the provision of technologically mediated services to citizens in a smart city. Anttiroiko (2014) speaks of "web 2.0 platforms", government websites and portals forming service platforms as e-platforms for facilitating smart and sustainable solutions to complex problems of urbanization (2014: 329). Balakrishna (2012) realizes how the internet today is capable of creating a society that is networked and interlinked and that smart mobile phones with many of its features can be used as a platform for service delivery in smart cities (2012: 224). Technology and most specifically information technology is the basis of smart city functioning- " Information and communication technology is an essential part of urban development and is necessary for all smart cities" (Alkandari et al. 2013:79). The important components which would enable a city to function efficiently in the scope of a smart city are smartphones, wireless networks like, Local Area Network (LAN), Wide Area Network (WAN) and Metropolitan Area Network (MAN)[viii] and sensors connecting people to mobile terminals (Alkandari et al. 2013: 80)

It must be emphasized that availability of big data and information to the stakeholders with regard to city functioning, services and governance is important for a smart city to exist with "Internet of Things"[ix] being the "technological cornerstone" of smart cities (Dohler et al. 2011 : 3). Cloud computing capable of hoarding and generating huge data and enabling "intelligent contextual information" can be a technological innovation in a smart city as claimed by Khan and Liaquat Kiani (2012: 315). A smart city initiative entails significant changes in the infrastructure enabling public service delivery capitalizing on technological innovations.

However, it also requires a significant change in the urban management of the city which implicates changes in the planning, governance, and administration of the city. A major reform in the city governance emphasizes public participation in city administration and decision-making as an important constituent of a smart city. Thus the literature also focuses on how human capital should be used in improving quality of life in urban spaces (Neirotti et al. 2014: 26). People's participation in decision making and governance is facilitated through technologically mediated platforms.

It has been recognized that putting a smart city mission to action and implementation requires a proper framework and is essentially context- specific with regard to different countries and states. Literature has come out with frameworks to be followed in implementing smart city and such frameworks are not free from challenges. Ojo, Curry, and Janowski (2014) came up with a "Smart City Initiative Design Framework" (SCID) after analyzing ten major smart city initiatives. This would guide policymakers, practitioners and major stakeholders to implement smart city mission. The framework identified the critical success factors in smart city implementation as- "political leadership", "a holistic and integrated government approach", "research and think-tank institutions", "non-compromise on core values, creativity and affordability", "comprehensive master-planning", "regulations and standards for stakeholders", "stakeholder collaboration" and "industrial partnership" (2014: 10) . Neirotti et al (2014) put forward four contextual factors that might be considered for initiating smart city programme. These include "structural factors of size and demographic density, economic growth of a city, technology development, environmental friendly policies, and other country specific variables like institutional factors and morphological or climatic conditions" (Neirotti et al. 2014: 29-30). Dohler et al (2011) provide an action plan for smart cities which recognizes the key stakeholders and facilitators to be present in the smart city ecosystem along with the requirements for enabling business in the smart city ecosystem. Falling back on the leading smart city project, OUTSMART the authors identify the key stakeholders in the smart city to be the citizens as the first player who are the receivers of smart city services, cities as the second player which will be the sites for providing the services and utilities being the third player which will be the smart services to be provided. This work also recognizes the key facilitators of the smart city to be

technology and the service providers which will keep the smart city operative (Dohler et al 2011: 2). Regarding business facilitators, the authors mention the two dimensions of politics and finance. For the first dimension, they suggest the presence of smart city departments in government offices having their own power of decision-making. As to the financial dimension, it is realized that financing the smart city project is a major and most important issue to "get this market going" (Dohler et al 2011: 3).

Smart city implementation is an aspiration which is not free of challenges. The literature further recognizes such challenges which will be encountered in making this aspiration a success story. Meijer and Rodriguez Bolivar (2016) claim that smart city implementation is a "complex process of institutional change" and "the political nature of appealing visions of socio-technical governance" must be considered (Meijer and Bolivar 2016: 392). Therefore, the literature points that taking into consideration of only technical components for the implementation of smart cities missions is not sufficient.

It is a challenging factor as to how far this type of city administration relying on technology is appealing and acceptable to the urban population for whom these services are generated. Nam and Pardo (2011) view that such technological innovations in city administration and public service delivery might not benefit all in the city. The tech-savvy citizens, who are well aware and proficient in using technology specific will be the most benefitted from the smart city mission as they will be able to utilize the technologically mediated services. On the other hand, those who are not aware of how to use such technologies will not be able to take advantage of these services and will be at a loss leading to a digital gap in the urban space. In addition, overcoming the digital gap, that is the divide between those who have access to technology and those who are devoid of this will certainly be a challenging act on the part of the government when public participation in decision-making through technologically mediated sources is an important aspect of a smart city. (Nam and Pardo 2011: 288).

Khan and Liaquat Kiani (2012) believe that to ensure productive decision-making through ICT, citizens must have access to the "right contextual information" which is a major challenge (Khan and Liaquat Kiani 2012: 315). Schaffers et al (2011) point that cooperation among major stakeholders in the smart city to be a necessary condition and claim that the "development of

cooperation frameworks and synergy linkages between Future internet research, urban development policies and open user-driven innovation" will be a key challenge to overcome (Schaffers 2011: 433). . Moreover, Ojo, Curry and Janowski (2014), highlight the challenges of a smart city as obtaining buy-in from stakeholders, encouraging private sector involvement, inclusion of poor areas in the project, sustaining stakeholders' interest and participation, arranging for resourcing and funding and ensuring residents' participation (Ojo, Curry and Janowski 2014: 11) .

Therefore, smart city initiation and implementation are not devoid of major challenges which the political leadership must address while taking up the project. Challenges arise not only from the technical aspects of the mission but also from the political aspect as is evident from the above discussion.

2.3 International organizations and understanding of smart cities

The concept of a smart city has also been dealt with also by international organizations considering its growing importance in the context of urbanization. The definition, characteristic features and the major requisites and challenges of smart cities have been conceptualized by organizations like United Nations, World Bank, International Standardized Organization (ISO) and Brazil, Russia, India, China and South Africa (BRICS) among others. This section analyses in a comparative manner the viewpoints of these organizations with regard to the smart city specifically in three areas- definition, characteristic features and challenges and requisites of a smart city.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) and United Nations Conference on Trade and Development (UNCTAD) of UN have brought up many concept papers on this. Both the agencies refer to the definition of the smart city as given by the International Telecommunications Union (ITU) which has studied 100 such cities of the world. According to the ITU-

> A smart sustainable city (SSC) is an innovative city that uses information and communication technologies (ICTs) and other means to improve quality of life, efficiency of urban operation and services, and competitiveness, while ensuring that it meets the needs of present and future generations with respect to economic, social and environmental aspects (ECOSOC 2016: 30)

Further, The World Development Report (2016) defines a smart city as

> a city that leverages the latest technology and connectivity to make better decisions and achieve the urban aspirations of its residents. Specifically, smart cities collect lots of data through instrumentation, together through integration, bring these data together and then analyze the integrated data for intelligence on how to improve the city's services and quality of life (Linders 2016: 240).

The ISO defines a smart city as-

> one that…… dramatically increases the pace at which it improves its social economic and environmental (sustainability) outcomes, responding to challenges such as climate change, rapid population growth, and political and economic instability …… by fundamentally improving how it engages society, how it applies collaborative leadership methods, how it works across disciplines and city systems, and how it uses data information and modern technologies……in order to provide better services and quality of life to those in and involved with the city (residents, businesses, visitors), now and for the foreseeable future, without unfair disadvantage of others or degradation of the natural environment (ISO/IEC JTC 1 2015: 2)

For BRICS countries, as discussed in the third BRICS URBANISATION FORUM, 2016-

> The term Smart Cities can be defined by a triple bottom line of its own, interrelating information and communication technologies, urban infrastructure systems, and integrated governance processes. In the Smart City sustainable urban development is achieved through the central use of information and communication technology for digitally linking up and coordinating various urban systems in an overarching information system (BRICS 2016: 21).

It is observed that all these definitions have the common link wherein they tend to associate the concept of smart city with providing services to people in the urban spaces relying specifically on Information and Communications Technology, involving the people in the governance and administration of the city in a collaborative fashion while giving importance to the aspect of sustainable development.

In terms of the features of a smart city, The UNESCO and UNCTAD specify certain necessary infrastructures for the smart city- "smart buildings": one which has optimum usage of energy

with proper management of waste and efficient water supply leading to satisfaction of the dwellers, “smart mobility”; one that reduces congestion and provide for a greener and more optional transportation facilities, “smart energy”: one that can ensure renewable energy sources and its digital management, “smart water”; one that solves the water scarcity problem, “smart waste management”: digital management of waste, smart health: use of technology and big data for catering to health issues of citizens, and “smart digital layers”: ICT being able to gather and availability of information needed for the city to be administered (ECOSOC 2016: 4-7)

The World Development Report (2016) recognizes three important aspects of a smart city- “instrumentation, integration, and intelligence”. Instrumentation refers to the collection of data through sensors about traffic, water, and energy, through systems about building automation, through satellites about weather patterns and through society from social media. Integration involves connecting and bringing the data together as collected from different parts of the city through the Internet of Things (IoT). Intelligence specifies analyzing these data for insights and better decision making through big data analytics, predictive analytics and data-driven optimization (Linders 2016: 241). The International Standards Organization (ISO) came up with a couple of characteristic features that would be specific to smart cities. These include instrumented city for “enabling collection of data about city life, aggregation of data, visualization and availability of data, detailed measurable and real-time knowledge about the city, analytics and decision-making system, automated city services, network of collaborative spaces and more inclusive decision-making processes” (ISO/IEC JTC1 2015: 5) . In all these elements, ICT is expected to have a primary role The BRICS conference specifies that in smart cities, there must be the generation of massive data to be linked to the functioning of the cities which would make citizens’ lives better and qualitative. To enable this the smart city would require physical infrastructure that collects and organizes data regarding problems of city life, and use a software framework that make such data available to the public, use of Application Programme Interface (API) to ensure open consultation for generating solutions to social and personal problems and providing for extensive technological training for citizens to use data and apply for finding solutions to city life (BRICS 2016: 21). These characteristic features, as enumerated by these international bodies, are essentially related to infrastructural specificities of cities which can be termed as smart cities. These infrastructures are essentially sustained by ICT

and generation of data and its utilization for solving city problems and providing public services, which form the basis for the existence of a smart city.

As noted, smart city application and its implementation is a challenging act, the international organizations also lay out the challenges to be faced in smart city implementation. The UNESCO and UNCTAD claim that for smart city infrastructures to be implemented there would be a requirement for making smart city infrastructure relevant to local development needs, culture, and economics. In addition, there is a need to address skill gaps in human resources, make provisions for adequate financing and well-developed business models, enable effective governance in city administration through proper and balanced top-down and bottom-up approaches and designing inclusive smart cities (ECOSOC 2016: 8-14). The World Development Report (2016) claims that the smart city should ensure efficiency to solve city problems through analysis of data, enable innovation through collaboration and foster inclusion to provide for benefits to all (Linders 2016: 240-241). The ISO specifies three important requisites of a smart city- technological needs, market needs, and societal needs. As to the first requirement, a smart city must be able to provide robust technology for smart solutions. Regarding the second, a specific economic environment is required for the smart city to sustain with its techno-centric functioning. To substantiate for the third requirement, citizens must be included in the decision-making process of the city administration (ISO/IEC JTC 1 2014: 10-12). The BRICS conference recognized four major flaws in smart city technology vision- First, cities envisioning for smartness narrow their vision only to technological development and not towards the broader issue of solving urban problems. Second, there is a lack of enough evidence as to how smart cities perform thereby leading to no guidance for cities to follow a model in implementing smart city program. Third, there is a lack of awareness as to how other cities attempt to solve city life problems. Last, there are not many measures taken to involve citizen participation in smart city innovation and decision-making although they are the "implied beneficiaries" of a smart city (BRICS 2016: 23). These seem to be the challenges in smart city implementation which must be given due consideration. Therefore, what is evident from this discussion is that the international organizations dealing with smart cities have acknowledged how a smart city implementation is a challenging act and that it has many important requisites to be successful.

2.4 Conclusion

The purpose of this chapter was to gain an understanding of the concept of smart cities. Accordingly, it attempted to understand as to when, how and in what respect can cities claim to be smart? Before advancing a discussion on the Smart Cities Mission in India, which is the main focus of the present research, it is important to provide a clear idea of what smart cities actually are. Therefore, an exhaustive discussion has been attempted in this chapter for the conceptual clarity of smart cities relying on the recent literature on this subject.

Drawing from the discussion about the literature on smart cities, it was understood that deal with the problems posed by accelerated urbanization. Such problems are to be solved by infrastructural developments which are to be facilitated by smart cities which will essentially be dependent on ICT. However, cities cannot be smart only by relying on ICT enabled infrastructure but should be guided by overall changes in the governance structure of the city that aspires to be smart. Such changes have implications for bringing in major stakeholders in the process of creating smart cities where citizens will play a primary role in participating in the process. Cities will be smart when the quality of living for the urban population will be upgraded by providing them with necessary public services. The urban population for which good quality services will be ensured will also include the marginalized and vulnerable sections of the urban spaces.

Keeping the basic ideas associated with smart cities as derived from this chapter, the successive chapters discuss the meaning of a smart city in the Indian context besides understanding how the political leadership conceptualizes its implementation. In addition, it attempts to probe into the challenges on the way for smart cities in India to become a reality.

Chapter 3
Urban Management in India: Lessons from JNNURM

3.1 Introduction

The Smart Cities Mission (SCM henceforth) is the latest attempt by the Indian government to operationalize effective urban management. However, the implementation of the project may be hampered by many challenges. Before understanding the challenges in the process, it becomes pertinent to appraise the functioning of the urban renewal missions in the past. The analysis of the functioning of previous urban renewal programs provides inputs on the possible challenges that may crop up and hinder the SCM in its implementation and functioning. The Jawaharlal Nehru National Urban Renewal Mission (JNNURM henceforth) can be considered a case in point.

This is because JNNURM introduced a breakthrough in urban management and urban governance in the country. In the words of Sadoway et al (2018), "Jawaharlal Nehru National Urban Renewal Mission is an excellent window for understanding the evolution of urban governance in India, despite its closing in 2014" (Sadoway et al 2018: 71). Under this scheme of JNNURM, urban management was to ensure "development of the cities through efficient governance, better infrastructure, and improved service delivery" (Kundu 2014: 617). This mission introducing reforms in urban infrastructure and governance added an innovative dimension to the management of the urban spaces. As such it became "a predecessor and a template" for national urban renewal initiatives including the SCM (Hoelscher 2016: 29). It is even believed that SCM is a continuation of JNNURM. As such reference to JNNURM becomes all the more important before proceeding with SCM.

In this context, a brief historical overview of urban management in India also becomes significant so that the approach and trends in this can be understood. To this end, the five-year plans introduced in post-independent India will be referred to.

3.2 History of Urban Management in India: An Analysis of the Five Year Plans

The issue of urban development and its management could not occupy a significant place in the initial years of development planning. It was only in the Fifth Five Year Plan that a chapter on 'urban development' appeared in the national planning agenda (Sagar Santosh 2017: 94). This section analyses urban management under the Five Year Plans with the three aspects of planning, financing, and governance. It deals with how urban development has been planned, financed and governed under the auspices of the Five Year Plans. The Twelfth Five Year Plan, which is the latest one, recognizes these three variables to be the major enablers of effective urban management. As such, this section attempts to understand how well the urban management fared with respect to these three factors?

Planning for urban spaces in India has been directed by a broad framework of master plans, concern for urban poverty in slums and provision of infrastructures to substantiate service requirement of the urban population. Starting from the First Five Year Plan (1951-56), there was an increased emphasis on the preparation of master plans. The master plan was used in 20th century Britain as a model of city and town planning. Such a model of planning was applied in postcolonial urban restructuring in India. In 1955 the Delhi Development Authority (DDA) was thus set up to prepare a master plan for the capital city of Delhi. Delhi Master Plan was to serve as a model for city development in other states (Shaw 1996: 225). In the second and the third plan also, there was an emphasis on the preparation of such master plans for many cities (Batra 2009: 7-8).

The approach towards slums in urban areas occupied an area important enough to be dealt with in urban planning. The Slums Areas (Improvement and Clearance) Act passed in 1956 defines slums as- "any area (where) buildings…(a) are in any respect unfit for human habitation, or (b) are by reason of dilapidation, over-crowding, faulty arrangement and design of such buildings, narrowness or faulty arrangement of streets, lack of ventilation, light or sanitation, or any combination of these factors, are detrimental, to safety, health or morals" (Slum Act, GoI cited in

Batra 2009: 7). The Five Year Plans' approach towards slums that plagues Indian cities have witnessed a change from a hostile attitude towards a more moderate one in the subsequent planning years. In the initial years, planning was such that it wanted to "erase slums" owing to their "unsightly presence" in the cities (Shaw 1996: 226). The First Plan (1951-56) categorically emphasized on clearance of slums and the master plans which guided city development also had their focus on slum clearance. However, the problem of slums and therefore urban poverty received a more moderate approach in the subsequent planning years. For instance, urban community development found a place in the Third Plan (1961-66) to deal with the problem of urban slums (Batra 2009: 8). The Fourth (1969-74), Fifth (1974-79) and Sixth (1980-85) Plans also shifted their approach from slum eviction to slum redevelopment and provision of basic services and civic amenities to slum dwellers.

To give instances, the Fifth Plan came out with a scheme like Environment Improvement of Urban Slums (EIUS) (Sagar Santosh 2017: 92). National Commission on Urbanization (NCU) set up in 1985 recognized the issue of urban poverty in cities. Schemes like Urban Basic Services (UBS) in 1986, Nehru Rozgar Yojana (NRY) in 1989 and Urban Basic Services for the Poor (UBSP) in 1990 were introduced under the auspices of the Seventh Plan (1985-90). The Eight Plan (1992-97) too came up with schemes such as Prime Ministers Integrated Urban Poverty Eradication Programme (PMIUPEP) in 1995, National Slum Development Programme (NSDP) in 1996. The National Slum Development Programme (NSDP) was introduced in the Ninth Plan (1997-02) (Sagar Santosh 2017: 93).

Development of infrastructure for the provision of basic services and housing facilities in urban areas formed another domain of importance under urban planning in India. The urban development planning of the Indian government in the 20th century was guided majorly by infrastructural development mainly in the metropolitan cities (Sagar Santosh 2017: 93). The Fifth Plan came up with the scheme of Integrated Urban Development Programme (IUDP) to enable infrastructure development of cities with more than three lakh population. The setting up of Housing and Urban Development Corporation (HUDCO) in 1970 emphasized on the provision of loans to urban development authorities and housing boards of states for meeting the requirements of housing and other development infrastructures. It had its goals as providing

housing for economically lower sections in the cities. The National Housing Policy (NHP) of 1988 also aimed at adequate service delivery to the poor and improving upon houselessness (Batra 2009: 11, 16). The drive for infrastructure development of urban areas continued in the 21st century. The Tenth (2002-07), Eleventh (2007-12), and Twelfth (2012-17) Plans specified provision of civic amenities like water supply and sanitation and infrastructural development in the urban spaces came up with a number of programmes (Planning Commission, GoI).

Urban planning witnessed a shift of hand from being a predominantly government-led initiative to being a private sector led urban development. Until the Sixth Plan (1980-85), urban management was a government-led initiative. In the Seventh plan (1985-90) it was realized how the involvement of private sectors in the investment of urban development was important given the limited resources and skill of the former (Shaw 1996: 227). Guided by the economic liberalization of 1991, urban development in the Eighth Plan (1992-97) was to be supposedly linked to economic growth. The realization as to the significance of cities as engines of economic growth, capitalizing on which the predominant neoliberal agenda of the globalizing world could be adhered to, urban planning in India soon took recourse to a market-driven approach of which public-private partnerships in urban development occupied a central stage among other things in this Plan (Batra 2009: 24). The India Infrastructure Report (IIR) of 1996 which has influenced the 9th plan played a significant role in promoting commercialization and privatization in building urban infrastructure and also in its management and governance. Thus under the Ninth Plan (1997-02), private partnerships in provision of public infrastructure emerged as a major agenda (Batra 2009: 24).

Further, the programme of urban infrastructure development and service delivery had to be supplemented by adequate financing of the same. The Five Year Plans thus addressed the issue of financing of urban development. The approach towards financing follows the trends of central government funding of city development projects, the introduction of private sector investments and strengthening the self-sufficiency of urban local bodies in financing urban renewal projects.

Direct assistance by the central government to city development appeared for the first time in the Fourth Plan (1969-74) when the then Prime Minister, Indira Gandhi granted special package for Kolkata. Further Rajiv Gandhi, during his tenure as Prime Minister, introduced a programme for granting direct assistance to Mumbai naming Prime Minister's Grant Programme (PMGP) in the Seventh Plan (1985-90) (Sagar Santosh 2017: 92). There was an enhanced emphasis on the introduction of private capital in urban infrastructure development at the backdrop of liberalization in the 1990s. The public sector willingly took a back seat in the financing of urban development realizing how the private sector was better capacitated in raising " large funds from the capital market" also possessing the efficacy of "technological choices allowing unbundling of Services" (Batra 2009: 21). The IIR of 1996 estimated a requirement of "Rs. 2,803.5 billion in the next ten years for infrastructure development to sustain urbanization in Indian cities of which only Rs 50 billion every year could be available". Thus private sector investment was deemed to be necessary along with other innovative means of resource mobilization like municipal bonds (Batra 2009: 21)

Many instances of private sector investments in city development projects followed thereafter including international financial assistance from World Bank, Asian Development Bank (ADB) which also paved a way for their involvement in Indian city planning (Sagar Santosh 2017: 93). There was also an emphasis on the self-sustenance of state and urban local bodies in resource mobilization for urban development programmes. The Eight Plan (1992-97) specified on how the urban local bodies will have to be strengthened in the organizational front for ensuring financial sustainability (Shaw 1996: 227). The Tenth Plan (2002-07) also focused on making urban local bodies to be financially strong enough to be less dependent on state transfers for urban development. This called for "reform in property tax, levying of user charges, increasing non-tax revenues, controlling establishment costs, better utilization of municipal assets and overhauling municipal accounting systems" (Batra 2009:27).

The mechanism of governance in urban development witnessed many initiatives under the Five Year Plans. It started with the formation of a separate ministry, which was deemed responsible for urban management and creation of other institutes to this end. The governance process in

India also saw the subsequent strengthening of local governmental units[x] and an interesting introduction of parastatal bodies in urban management. Parastatal bodies fall beyond the ambit of representative government comprising mainly professionals in the field. Urban governance received its breakthrough with the formation of a separate Ministry of Housing and Urban Development under the Government of India (GoI) in 1985 which also created the National Commission on Urbanization (NCU) aiming at providing a holistic view on urban sector issues and initiating deliberations up to the policy level. The concept of good governance now found its way to urban management with its focus on transparency, decentralization, accountability, and civic management introducing area Sabhas, ward committees, budgeting reforms and application of Information Technology in many applications (Pandey 2012: 4).

The introduction of decentralization in urban governance had implications for strengthening local urban bodies making these viable spaces of 'vibrant democratic unit of self-government' (Pandey 2012: 4). To this end, an attempt was made to constitutionalize local government bodies during the Seventh Plan (1985-90). In 1989 the 65th Constitutional Amendment Bill suggested the creation of a strong third tier of government unit below the union and the state. Although the Bill could not be passed in the Rajya Sabha, the second house of the Indian parliament, it was again presented to be passed after some modifications. It found space in the Indian Constitution as the 74th Amendment Act in 1992 coming to action in 1993 making local bodies as viable governmental units. The Seventh Plan also emphasized on the revitalization of civic bodies and community participation in local governance (Shaw 1996: 227).

In addition, the involvement of parastatal bodies[xi] in urban governance also found prominence under Five Year Plans. As early as the Second Plan (1956-61), parastatal development authorities like Delhi Development Authority (DDA), Mumbai Metropolitan Regional Development Authority (MMRDA), Madras Metropolitan Development Authority (MMDA) were established to initiate planned development of cities based on master plans (Batra 2009: 8).

Drawing from the above discussion, it is evident that the Five Year Plans could address the question of urbanization wherein they introduced a large number of schemes for enabling urban development. This section compartmentalized the discussion on how the government responded

to the pressing issue of urbanization through its five-year plans into the three aspects of planning, financing, and governance. In all the three aspects a particular trend is noticeable- there has been a shift of responsibility from government authorities to private players and subsequent introduction of market-based approaches in urban management. Such a tendency has been in congruence with a neoliberal agenda that looms large in today's globalizing world. Such tendencies found prominence in many urban renewal programmes of the government thereafter.

3.3 Urban Management in India: Jawaharlal Nehru Urban Renewal Mission

The Jawaharlal Nehru Urban Renewal Mission (JNNURM) was a landmark policy initiative in 2005-06 in the direction of efficient urban governance. It introduced major reforms in the management of the urban spaces.

Under this programme, 65 mission cities across India were chosen with certain targets to be "fulfilled. These included two major sub-missions- Urban Infrastructure Governance (UIG) and Basic Services to the Urban Poor (BSUP). The former- (UIG) comprised projects like "construction of roads, improving public transport, trunk network of water supply, sanitation, solid waste management, and storm water drains, construction of multilevel parking lots and city beautification etc." (Kundu 2014: 618). The latter, Basic Services to the Urban Poor (BSUP) most evidently aimed at providing basic services and security of land to this section of the urban population. Its pro-poor agenda included three major reform initiatives- "a) earmarking of 25% of municipal budget for the urban poor for provision of basic services including affordable housing to the urban poor; (b) implementation of 7- Point Charter, namely provision of land tenure, affordable housing, water, sanitation, education, health and social security to the poor in a time-bound manner ensuring convergence with other programmes and (c) reservation of 25% of developed land in all housing projects, public or private, critical for slum improvement" (Ministry of Housing and Urban Affairs, GoI)

The JNNURM had components for non mission cities as well like- UIG for the Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT) and the Integrated Housing and Slum Development Programme (IHSDP) (Kundu 2014: 618). A major

component of this urban renewal programme was to devolve more power to urban governance as advocated already by the Constitutional Amendment Act 1992. There were two major reform initiatives to be taken under JNNURM- mandatory and optional. The former presupposed states legislation to provide for the devolution of power to urban governance. "Other mandatory reforms relate to administrative and fiscal efficiencies; improved infrastructure and service delivery standards; and local participation, accountability and transparency in urban governance" (Nandi and Gamkhar 2013: 56). Mandatory reforms also included the application of e governance[xii] tools in service delivery, reform of property tax so that revenue generation can take place most effectively, and levying of user charges to cover the operation and maintenance cost of the programme. Besides, "internal earmarking of budgets" was introduced to enable affordable service delivery to the urban poor (Batra 2009: 3). Optional measures among other things included the realization of the infrastructures through a private-public partnership, "streamlined administration" and water supply (Nandi and Gamkhar 2013: 56).

As to the financing of the reforms mainly for the sub missions, the Union Government would transfer "75% of the finances" for the projects owing to the fulfillment of the milestones as expected to be achieved by the sub missions (Nandi and Gamkhar 2013: 56). A particular pattern of funding was introduced which was to be shared by the centre, state and the Urban Local Bodies (ULBs)- it was to be "35:15:50 (between Centre, States and Urban Local Bodies) for cities with over 4 million population, 50:20:30 for cities with populations between one and four million, and 80:10:10 for other cities" in terms of percentage (Batra 2009: 30). There was also a system whereby financial assistance was to be given to nominated bodies called the State Level Nodal Agencies. These would further assist the state government and ULBs through grants and loans. Such assistance would be measured to facilitate further resource generation from financial institutions and capital markets (Batra 2009: 31)

This mission was initially conceived for a period of seven years until 2012. However, it was extended until 2014 so that the projects sanctioned were completed. In March 2013 the mission again went for an extension till 2015 as the projects were yet to be completed (Ministry of Housing and Urban Affairs, GoI)

After a factual understanding of the JNNURM, it is necessary to look into how well did this programme fare in facilitating urban renewal? The following section, therefore, discusses the performance of the JNNURM in terms of the completion of the projects under its various sub missions.

3.4 Performance of JNNURM

In terms of the achievements of the JNNURM, only 40% of the projects were completed even though the period for the programme was extended up to 2014 and again to 2015 when the actual deadline was fixed at 2012 (Kundu and Krishna 2017: 45). The implementation of the programme aggravated regional disparities. The economically developed cities were more active and successful in implementing reforms under this mission while economically backward cities remained at the backdrop. Thus, equitable development of cities which was one of the goals of JNNURM could not be realized (Kundu 2014: 619). Evidently, reforms remained incomplete and project implementation showed slow progress. The following table (Table 3.1) shows the physical and financial progress under JNNURM at the completion of the first phase in 2012 and the total number of projects completed at the end of 2014.

Table- 3. 1: Total Progress of JNNURM in 2012

	UIG	UIDSSMT	BSUP	IHSDP	TOTAL
7 year allocation in crores	**31,500**	**11,400**	**16,357**	**6,828**	**66,085**
No of projects sanctioned	**559**	**808**	**528**	**1,078**	**2,973**
Total cost of project in Rs crores	**67,275**	**14,039**	**30,416**	**11,981**	**1,23,711**
Total ACA Committed	**30,971**	**11,372**	**15,092**	**7,704**	**65,139**
Total ACA released (in ` crore)	**18,479**	**8,469**	**8,642**	**4,905**	**40,495**
Percent of ACA released to ACA sanctioned	**60%**	**74%**	**57%**	**64%**	**62%**
No. of DU approved in lakh (BSUP and IHSDP)			**10.3**	**5.7**	**16.0**
No. of projects completed (UIG and UIDSSMT)	**127**	**142**			**269**
No. of Dwelling units completed(in lakh) (BSUP and IHSDP)			**4.4**	**1.8**	**6.2**

Source: Twelfth Five Year Plan (2012-2017)

Table 3.2: Progress of JNNURM in 2014

Name of the Mission	Completed projects	Completed dwelling units
UIG	38.8%(233 out of 599)	-
BSUP	-	52.7%, (526002 out of 997557)
IHSDP	-	46.5%. (257895 out of 554347)
UIDSSMT	39.45%, (453 out of 1148)	-

Source: Kamath and Zachariah (2015)

It is evident from the data that the performance of JNNURM has been inadequate in enabling urban renewal and in spite of being extended till 2015, projects under its sub missions could not be completed successfully. Relying on the synthesis of literature available on the issue, this unsatisfactory performance may be attributed to the ineffectiveness in planning, financing, and governance of the urban space under this programme. The proceeding sections discuss the ways in which the JNNURM failed in terms of planning, financing, and governance.

3.4.1 Planning

Hoelscher (2016) recognizes how the inadequate success of urban policies in India like JNNURM can be attributed to the absence of formality in Indian urban planning. There exists informality as to urban planning and usage of land. Tight rules are abandoned in urban and municipal governance to negotiate and placate the bureaucracy (2016: 30). The overwhelming factors of "political considerations' and "vested interests" in making decisions in urban development programme also slow down urban renewal (Nandi and Gamkhar 2013: 57). Along with such affinities exists the lack of skill and capacity to plan projects and execute the same. The experience of JNNURM shows how urban planning could not be mainstreamed (Nandi and Gamkhar 59).

Further Planning was such that it could not align the ambitious urban development projects with priorities specific to the local context. Also, there was a delay in procuring land for project implementations which was furthered by regulatory authorities holding on to permissions. Another lacuna in the planning process was lack of participation from major stakeholders resulting in "'lack of ownership'" and thus the lack of will to ensure effective performance (Twelfth Five Year Plan 2012-2017).

3.4.2 Financing

Going hand in hand with the lack of efficacy in planning is the significant factor of political economy and financial inadequacy in implementation of the ambitious urban development projects under JNNURM. Although central grants were available for the mission cities under JNNURM, the release of such funds could not satisfy the desired pace and amount. Until 2014, funds were released only up to 70 % and only 13 states could receive the same (Kundu and Krishna 2017: 45).

Another issue was the regional bias towards more developed states in allocation of funds for the sub-missions of JNNURM by the centre. As of 2014, under UIG, BSUP, UIDSSMT and IHSDP only around five to six states acquiring position at the top with regard to economic development

received more than 50% of the Government of India funds which included Delhi, West Bengal, Gujarat, Andhra Pradesh, Uttar Pradesh and the likes with Maharashtra alone receiving more that 15% of the share (Kamath and Zachariah 2015: 4-5). The following table (Table 3.3) shows a glimpse of it.

Table 3.3- Allocation of Funds to Top Five States in Different Schemes under JNNURM

	Mission name			
States	**UIG**	**BSUP**	**IHSDP**	**UIDSSMT**
Maharashtra	16%	20%	22%	20%
Delhi	8%	10%	-	-
U.P	-	8%	11%	8%
M.P	-	-	-	9%
A.P	-	11%	9%	18%
Gujarat	9%	-	-	-
W.B	9%	14%	-	-
Tamil Nadu	-	-	-	6%
Rajasthan	-	-	8%	-
Other	46%	37%	41%	39%

Source: Kamath and Zachariah (2015)

Also the Urban Local Bodies (ULBs) were not financially sustainable to carry on with the projects. JNNURM had its aim of making ULBs financially strong enough to make them less dependent on state transfers. To this end they were to raise resources through improved tax revenues, user charges and through capital markets (Kamath and Zachariah 2015: 11). Besides central funding and property tax reform, JNNURM provided for "bond sharing" and "private public partnership" as optional reforms in enabling the development of urban infrastructure (Nandi and Gamkhar 2013: 57).

However, the local bodies proved ill-equipped and incapable in these. For instance, property tax reform conditioned on Geographic Information System (GIS) mapping was emphasized to enable adequate resource mobilization by the local bodies. However the faulty designing of the

reform disabling "scientific estimation of the property tax base" led the local bodies to fail in this regard (Mohanty and Mishra 2016:6). Another interesting insight is that the availability of central and state grants for the projects led the urban local bodies to lose motivation in raising financial resources for the projects (Mohanty and Mishra 2016: 97). Urban local government in smaller cities faced greater challenges in raising matching central government funds owing to their lacking capacity and skill (Kamath and Zachariah 2015: 11). This resulted in incompletion of urban development projects due to the lack of adequate financial resources to this end.

3.4.3 Governance

The functioning of the JNNURM in the most unsatisfied manner revealed the weaknesses characterizing urban governance. Urban governance if adequately efficient lays the foundation for strengthened local institutional and planning capabilities and financial sustainability which could not be achieved by JNNURM in its quest for renewed urban management. The major lacuna in this respect had to do with the denounced thrust towards decentralization as nurtured by the 74th Constitutional Amendment Act (CAA). This led to lesser autonomy of the local government bodies in undertaking charges in the urban development agenda in a fully fledged manner. Although JNNURM emerged as a breakthrough in the urban management of the country due to its explicit claims of prioritizing urban local bodies in initiating urban renewal, in practice and essence it nevertheless ensured a centralized urban governance programme (Sadoway et al., 2018: 73). Despite the 74th Constitutional Amendment Act, the power, functions and economic sustainability of the municipalities were enhanced, the "reluctance of state governments to devolve power appears to be the primary reason for local governments remaining administratively and economically weak" (Nandi and Gamkhar 2013: 57).

Kamath and Zachariah (2015) recognize the major lacunae in governance under JNNURM to be facilitated by lowered political autonomy of elected local governmental bodies, lack of public participation in decision making and implementation of urban projects and neglecting the capacity building of ULBs. Under JNNURM more importance was given to technical

consultancy and privatization was favored over municipalization in local urban management. (2015: 12-14). Consequently, the skills and capacity of ULBs were not realized which led to the poor handling of the reforms and projects by these bodies. ULBs are considered to be lacking in the required skill and capacity both in resources and in performance to manage urban development at this level. Therefore, major functions and funds associated with the programme were delegated to parastatal agencies.

Lacking faith in ULBs' capability in project preparation and implementation, Project Implementation Units (PIUs) and Project Management Units (PMUs) were set up and functions outsourced to private companies. Centralization prevailed in urban infrastructure development and service delivery as benchmarks set by the centre had to be met in these respects in order to avail funds. Moreover, commercial financing and private-public partnerships (PPPs) in project implementation were sought. However such financing was less in urban infrastructure development and very less PPPs were actually successful in service provision (Kamath and Zachariah 2015: 11-14). Also, JNNURM at the functional level came under the influence of external agencies and actors also accompanied by the technical consultancy. Public participation and information generation were limited as decision-making lied at the behest of private players. (Sadoway et al 2018: 75-78). These led to the lack of accountability and transparency in its functioning and negligence towards the economically weaker sections within its ambit of service delivery. Although the JNNURM spoke highly of enhancing decentralization by making ULBs take the centre stage in urban development yet the ULBs were bypassed due to their lack of capacity with their functions being delegated to players having more skill. Instead of making ULBs stronger, centralization and privatization loomed large in the governance structure of local city spaces under JNNURM contributing towards its unsatisfactory performance.

3.5 The Way Forward-The Smart Cities Mission in India

The Smart City Mission was the next ambitious project of the political leadership in India to bring about efficient governance, appropriate infrastructure and public service delivery in the ever-increasing urbanized space. The events leading to its adoption in India have been discussed in the first chapter. This section provides a detailed understanding of the components of the policy initiative of SCM in India.

The Smart Cities Mission Statement and Guidelines document released by the Ministry of Urban Development (MoUD), GoI in June 2015 provides a detailed outline of this programme. At the very outset, the document makes it clear that there can be no universally accepted definition of the smart city as it would differ from country to country and city to city on the basis of the levels of development, reform agenda, and many such factors. Thus it is better understood even in the Indian context with regard to its infrastructural specificities which would include-

> adequate water supply, assured electricity supply, sanitation, solid waste management, efficient urban mobility and public transport, affordable housing, especially for the poor, robust IT connectivity and digitalization, good governance, especially e-Governance and citizen participation, sustainable environment, safety and security of citizens, particularly women, children and the elderly, and efficiency in providing good health and education (Smart Cities Mission Statement and Guidelines 2015) .

In order to solve the urban problems of the increased population, the smart solution will be to use technology, information, and data to provide for efficient infrastructure, good public services and improved quality of life for the citizens. These are outlined as the goals of the mission along with improving the life of the poor and disadvantaged and providing for more inclusive cities.

The features of comprehensive development in an Indian smart city would be mixed land use, housing and inclusiveness, walkable localities, open spaces, many transport options, and cost-effective and citizen-friendly governance. The process of implementation of SCM is as follows-

The GoI would select 100 cities under the coverage of the mission plan which would implement the smart city requirements in a duration of five years from 2015-16 to 2019-20. The process might continue beyond the stipulated time period depending on the evaluation by the MoUD as per requirements. These 100 cities would be selected strategically through a detailed procedure as mentioned in the mission statement. This would involve a competition for selection among cities as sites for smart city mission implementation whereby the cities aspiring to be selected must prepare a proposal mentioning their applicability and planning for the programme to be considered by the MoUD. The cities identified for implementation of smart city projects will be governed by a Special Purpose Vehicle (SPV) for the implementation programme. "The SPV will plan, appraise, approve, release funds, implement, manage, operate, monitor and evaluate the Smart City development projects" (Smart Cities Mission Statement and Guidelines 2015).

There is no fixed model that can be applied to every smart city for the implementation of the programme. However there are certain essential aspects that must be fulfilled by these cities. these are-

> assured electricity supply with at least 10% of the Smart City's energy requirement coming from solar, adequate water supply including waste water recycling and storm water reuse, sanitation including solid waste management, rain water harvesting, smart metering, robust IT connectivity and digitalization, pedestrian friendly pathways, encouragement to non-motorised transport (e.g. walking and cycling), intelligent traffic management, non-vehicle streets/zones, smart parking, energy efficient street lighting, innovative use of open spaces, visible improvement in the Area (e.g. replacing overhead electric wiring with underground wiring, encroachment-free public areas, and ensuring safety of citizens especially children, women and elderly (Smart Cities Mission Statement and Guidelines 2015).

As drawn from the discussion, the SCM is indeed a detailed programme of the GoI in facilitating effective urban development. It has higher aims with regard to urban development and lays out the process for fulfilling the same.

3.6 Conclusion

The main purpose of this chapter has been to understand the trends that urban management has followed in India. To this end, a brief discussion of the five-year plans' approach towards urban development has been resorted to. This clearly manifested the trends followed in urban management to be subsequently moving towards a neoliberal agenda. This agenda now dominates the functioning of urban renewal mission in India.

It is also evident from the detailed analysis of the JNNURM that the challenges faced as a result of inefficiency in urban planning, financing, and governance were responsible for the unsatisfactory performance of the programme.

Taking into consideration the broader trend of Neoliberalism followed in Indian urban management and referring to the discrepancies existing in planning, financing, and management of urban development as witnessed under JNNURM, the next chapter focuses on an in-depth understanding of the major challenges that would crop up in the functioning of the Smart Cities Mission.

Chapter 4
Challenges in Successful Implementation of SCM in India

4.1 Introduction

This chapter puts forward the issue that in the initiation and implementation of the Smart Cities Mission (SCM), there will be many challenges that the government would face. It is beyond sufficiency that only relying on Information and Communications Technology which is a major feature of smart cities would solve urban problems. There will be challenges in the form of planning, financing, and governance of urban development which this chapter attempts to analyse. The critical analysis of the JNNURM in the previous chapter supports the claim that the issues of planning, financing, and governance stand as major challenges to urban renewal.

In analyzing each of these issues, some important political implications are addressed. For instance, urban planning in India as evident from the cases of JNUURM and now from the SCM seems to be in tune with neoliberal ideas having its implication for exclusionary development. Again in the context of financing urban renewal programmes, it seems that the local government bodies are crippled with regard to financial autonomy. This brings up the issue of division of power between the higher levels of government and the lower levels. Further in urban governance, public participation seems to be unsatisfactory and exclusionary in nature. How these issues will stand as challenges in the successful implementation of the SCM to mitigate urban problems is the emphasis of this chapter. This chapter relies on an extensive review of literature and desktop research.

4.2 Planning

Urban planning under the SCM covers both spatial and non-spatial dimensions in which the proper land use is an integral aspect of the former and socio-economic and environmental sustainability forms part of the latter (Bhattacharya et al 2015). The planning process goes step by step where the first task is to select cities for the implementation of the programme. The Smart Cities Mission Statement and guidelines provide the road map for how cities will be selected. This presupposes the preparation of proposals by cities "containing the vision, plan for mobilization of resources and intended outcomes in terms of infrastructure up-gradation and smart applications" (Smart Cities Mission Statement and Guidelines 2015). These proposals will contain features in tune with their local and contextual feasibility. The SCM provides for an area based development in urban planning having the components of city improvement, city renewal, and city extension. It adds the component of pan-city development which requires the application of smart solutions of technology and data to the existing urban infrastructures and services to make this function in a more efficient manner.

As only 100 cities would be selected for the mission implementation, city selection will definitely be a challenging process which will depend on how competitive the proposal is. For this purpose, proposal preparation would have to rely on experts and technical assistance has to be taken from consulting firms and foreign agencies like the World Bank, the UN-Habitat, Asian Development Bank (ADB), and others. These proposals will then be evaluated and chosen for implementation by the Ministry of Urban Development (MoUD). The evaluation will be done by a panel consisting of nationally and internationally acclaimed experts, organizations and institutions. The bases for such evaluation will be the model of area-based development to be used in city planning, sources of finances identified for project implementation and modes of citizen and stakeholder consultation introduced (Smart Cities Mission Statement and Guidelines 2015). As of 2018, there have been four rounds of selection of cities where the mission is to be implemented. These cities were chosen on the basis of the proposals prepared by them (Smart Cities Mission, GoI). Once selected, the cities will go for spatial planning and provision of infrastructures of service delivery by virtue of its many projects.

A significant issue in urban planning is the proper usage of land. Urban planning is associated with how land is developed and used for the purpose of housing, transportation and other activities like retail services and the likes so that cities grow in an orderly manner. Another important aspect of urban planning in land management is the provision for amenities of housing and other basic services to the marginalized sections in the cities. This aspect of urban planning holds particular significance given the condition of the urban-urban divide in Indian cities.

There exists an urban-urban divide between those who have access to proper housing, formal employment, and basic civic amenities and those who do not have access to any of the afore mentioned amenities. This latter group of people constitutes the urban poor. They do not live in proper houses, do not have formal employment and are not provided with basic amenities of life. As such, they are exposed to residential, occupational and social vulnerabilities. As to residential vulnerability, they lack proper houses or exclusive rooms and live mostly in slums. Slums are defined by the Census of India, 2011 as "a residential area with dwellings unfit for human habitation" where people live in "poorly-built, congested tenements and in an unhygienic environment, usually with inadequate infrastructure and lacking in proper sanitary and drinking water facilities" (BRICS 2016: 42). As of 2011, the slum population in the country rose to 93.05 million which constitutes 26.3 % of the urban population in the nation (Mohanty 2014: 118). Pertinent to note that major Indian cities like Mumbai, Hyderabad, Kolkata, and Chennai are plagued with such households which accounted for more than 25% in 2011 (BRICS 2016: 42).

These households live in poverty. Poverty was measured by expert committees on the basis of household expenditure and income. However urban poverty came to be measured by many parameters like residential, occupational and social disadvantages which have been too high. On the basis of such a measurement, in 2009-10, urban poverty accounted for 35.1% and 26.4% in 2011-12 (Mohanty and Mishra 2016: 20). Accompanying such vulnerabilities have been serious health hazards in these households. These households do not have access to basic amenities like water supply, electricity, and the likes. "About 29.4 per cent of the urban households still did not have access to tap as drinking water source within the premises in 2011" (Mohanty 2014: 118). In addition, this section faces occupational vulnerability. This implies that they are mostly employed in the informal sectors which lack legal recognition. The informal sector is

characterized by “poor working conditions-low wage, temporary nature of employment, absence of written contract, no job security, no paid leave, and no social security of any form” (BRICS 2016: 43). As a result, they also become victims of social atrocities in the form of caste, gender, and religious discrimination.

However, the Indian political leadership could not accommodate this section of the population on the agenda of urban development. The onus lies largely on the “failure of urban planning” (Mohanty and Mishra 2016: 51). In India, the land is managed for various services through the schemes of master plans rooted in the British planning tradition. The five-year plans have also attached particular importance to master planning. This master planning is mainly a mechanical and technical process of land management by top professionals in the field. Such planning in a democratic set up like India seems to be problematic. This is because such a system fails to address “the concerns of integrated development, encompassing production, employment, transportation, land use, housing, social inclusion and resource mobilization” (Mohanty and Mishra 2016: 36). Going against the principle of social inclusion, such a process of planning leaves out the poor and low-income groups[xiii] from participating in urban planning (Mohanty and Mishra 2016: 37).

As mentioned in the previous chapter, the JNNURM being a landmark urban renewal programme focused on the upliftment of the urban poor. However, its performance with regard to the upliftment of the urban poor is seemingly unsatisfactory. Besides, being a failure in reserving developed land in housing projects for the urban poor under the BSUP and IHSDP, “as against 12.5 million dwelling units sanctioned, covering 943 cities and towns, 1 million houses were completed and 0,79 million houses occupied by 31 March, 2016” (BRICS 2016: 45). Evidently, it failed to achieve inclusionary development of the city space.

The SCM has spelled out higher aims of uplifting the marginalized within its urban renewal agenda. To this end, it focuses on how area development and ICT mediated service delivery to people can ensure inclusive urban development. Area-based development intends to transform the existing slums into planned areas and spaces worth living. Through the use of technology, information, and data, the mission wants to provide good infrastructure and services to the urban poor thus fostering social inclusion (Smart Cities Mission Statement and Guidelines 2015).

However, an analysis of the real scenario depicts a different picture. An article released on the website of NDTV claims that the transformation of cities through projects of Smart City Mission has led to eviction and displacement of the urban poor in the country. Informal settlements of the urban poor have been demolished without giving them prior notice or proper resettlement. Yet the Government has promised the for all by 2022 (NDTV 2018). This includes slum eviction owing to major developmental projects in cities like Indore, Kochi, Bhubaneshwar and Delhi. New Delhi based advocacy group Housing and Land Rights Network, India (HLRN) has claimed that this mission has disregarded the rights and needs of the poor and marginalized sections in the target cities (NDTV 2018).

When the nation is already facing a precarious situation with a huge number of population living under inhuman conditions, an urban renewal project as ambitious as the SCM was expected to bring some positive impact. However, the SCM seems to have fared very low in transforming this condition. Rather it has made their situation worse. If a policy initiative of the government aimed at urban development does not benefit all of its urban population and leaves out some, it will have serious implications for social exclusion. It needs to be addressed here that why does urban planning fail to ensure equity and upliftment of the urban poor in India?

One major reason for this is that urban planning in India has been following the trend of neo-liberal and capitalist agenda to which the JNNURM and the SCM conform. Cities being are turned into sites for promoting a neo-liberal agenda. Under the neo-liberal agenda, the city is conceptualized primarily as entrepreneurial. Given its potential for serving as engines of economic growth, the city is used as a space where economic competition and innovation can be achieved. There is increased faith in applying market-based solutions to urban problems which include entering into private and global alliances for developing urban infrastructures that can promote local urban competitiveness. This approach to urbanization gives preference to decision-making guided by cost-benefit and not so much by social welfare and service delivery of equity in the urban spaces (Smitha 2017: 3).

Urban renewal programmes in India thus have been interested more in fulfilling this aim of modern urbanism by creating world-class cities, emphasizing more on aesthetics and following

the path taken by the West instead of adhering to the basic problems that the Indian population face. As such, large scale investments take place in urban areas to develop world-class infrastructure at the behest of private players and international agencies. These infrastructures are best suitable for the higher income groups and the middle classes, leaving out the urban poor, as they are not well equipped to afford these. Moreover, the urban poor and disadvantaged sections will be kept out if they come in the ways of creating a modernized and globally attractive urban space of the city (Hoelscher 2016: 38). This was true for JNNURM and now for SCM. Owing to all this, the image of the city is so created that it can fit into the neo-liberal agendas of the globalized world and not so much as a space for the citizens to harness public services.

The main motive is more towards attracting private and global investments to capitalize on the economic growth potentials of the cities. The city is developed in such a manner that it can serve as a zone for global capital investments and for furthering economic growth while hardly catering to the needs of the marginalized sections and urban poor who remain excluded from the benefits of urban development projects. Gautam Bhan laments the failure of urban planning with regard to housing for the marginalized sections in Delhi (Bhan 2013: 232-235). Darshini Mahadevia recalls how the urban poor living in the slums were evicted when commonwealth games were hosted by India with the view of beautification (Mahadevia 2011: 56-64).

Further, the JNNURM emphasized on the liberalization of land and building of houses by private sectors. Such a step was not of help to the urban poor as sky-rocketing prices of land and housing deprived them of procuring the same. Ironically, the private sectors were interested in building houses for the higher income groups and not for the urban poor. Further, in Delhi due to the high prices of land and housing, even the lower middle class along with the poor had to move out of the formal housing market. In Mumbai, although there was capacity in excess at upper segments of housing developed by private players yet no attempt was taken to build house for the urban poor (Batra 2009: 33-34). Thus, facilities seemed to be provided largely in the interest of elite residents under a neo-liberal approach of urban development. It seems that the SCM carries forward a similar agenda.

The area-based development suggested by the SCM guideline contains the potential for spatial segregation in the usage of land whereby areas will be so developed that these could promote "upper class enclavism" and gentrification (Hoelscher 2016: 38). Gentrification refers to

displacement and dispossession of the urban poor from urban formal lands and housing reserving the only for middle and upper classes. Therefore, usage of land and development of infrastructure are conceived in such a manner under SCM that these are in opposition to the humane aspect of inclusion in its development agenda.

The Chief Economist of Indicus Analytics, a Delhi-based economics research firm, Laveesh Bhandari tags smart cities as "special acropolis" where houses and infrastructures will be accessible only to middle and higher classes due to their exorbitant prices. As such the poor-urban and rural will not be able to enjoy the privileges of such high-end infrastructures. Also, when they are deprived of basic necessities, a digitalized and world-class city with multi-storied housing from which they are kept out will not be of any use to them but will only further social exclusion (Sagar and Mohanty Ing 2016).

The neo-liberal agenda in urban planning is further enhanced by the introduction of privatization of planning in urban renewal programmes in which urban space is managed and governed in such a way that the state withdraws itself from the planning and governing process of the city. There exist public-private partnerships in public service delivery and infrastructure building so that the city is transformed into an attractive zone for global capital and investment (Bannerjee-Guha 2009: 75). This leads to an "apolitical view of planning" (Farthing 2004: 65) where in the place of elected representatives of the people, some professional private players take decisions on how the city of the people should be developed.

Under JNNURM, projects for urban renewal were qualified for attaining central funds and market capital. However, whether the projects were qualified for such funding was to be assessed by bodies which were parastatal in nature and were not to be formed by elected representatives. These bodies would have the power to manage the funds received and monitor the projects funded. Also in case of funding, project proposals from private sectors would gain importance over these non- elected bodies (Banerjee- Guha 2009: 97-98).

Following a similar trend, there is an increased emphasis under the SCM to involve expert assistance from hand holding agencies, consulting firms, and global bodies like UN-Habitat, World Bank, Asian Development Bank and the likes in preparing proposals for smart cities.

Involvement of global planners and private agencies in smart city planning is also called for. Under such collaborations, project priorities might be in favor of capital accumulation and not so much in the public interest and may not lead to basic service delivery to the urban poor. Referring to Amitabh Kundu, Hoelscher affirms that too much of reliance on private sector involvement in infrastructure building and public service delivery under SCM leads to a condition where inclusiveness of the marginalized will be impossible (Hoelscher 2016: 37)

As such, urban planning if guided by a neo-liberal approach holds a major challenge for the success of urban development under the SCM. Sustainable urbanization which has its aim as promoting good quality living of the urban population including the marginalized sections remains unfortunately compromised in the quest for furthering corporate urbanism. It is now evident that the current approach taken towards urban planning has scope for exclusionary development. Although urban renewal programmes come up with higher aims of fostering sustainable development yet the question of urban poverty remains neglected. The answer to the problem lies in how effectively urban spaces can be planned so that this problem of social exclusion can be mitigated.

An analysis of the literature shows that there are some measures which can be taken towards effective urban planning. Mohanty (2014) speaks of the concept of strategic planning in this regard. By strategic planning, the author refers to a "public transportation-led model" which would be "environmental friendly", "transit-oriented development focusing on mixed land use", creating a "network of cluster cities and satellite towns" which would be connected well to the large city. It would further provide for "flexible land use planning", accommodating poor and low-income group residents by providing them space according to the "income distribution structure" of the city among other things (Mohanty 2014: 108-109).

However, it is a concern of the present research that in a strategic approach to planning, local governments have to partner with private sectors which leads to the introduction of an entrepreneurial style of planning (Farthing 2004: 69). In this type of planning, public investments have to help generate private investments and the city should be able to attract high-income professionals who could utilize the type of services to be now provided. This is a concern because with the private sectors becoming major players in urban development, the risk of social exclusion rises as already discussed exhaustively.

In order to ensure an inclusionary development, the literature recognizes that inclusionary zoning/housing (IZ/IH) can be considered (Mohanty 2014, Mohanty and Mishra 2016). IZ/IH would ensure that the spatial planning and distribution in the city is done in a way that there is "adequate formalized space" for the urban poor to reside and sustain themselves. Moreover,

> Inclusionary zoning/housing is one of the few successful strategies available to local authorities around the world to accommodate the otherwise-excluded low-income communities in asset-rich neighbourhoods where they are likely to benefit from better jobs and access to quality services like better schools, hospitals and public services (Mohanty and Mishra 2016: 94).

In India however, IZ/IH will require letting go of the rigidity in urban planning as the former requires flexibility. It requires changes in policies whereby urban developers need to take responsibility for providing spaces for housing and infrastructures to the urban poor in return of incentives given to them by the government, for such actions cannot be based on charity when profit maximization is the basis for city development for private urban developers (Mohanty and Mishra 2016: 94-95).

Another consideration is that instead of focusing too much on master plans in city development, an attempt can be made towards a "creative city making" (Landry 2016: 241). Relying on professionals to plan the city might not be as good as involving those who are affected by such planning decisions. This concept specifies that urban planning should focus not only on the hardware of the city but also on the software of it. Focusing on the software of a city implies that enough attention has to be given to social inclusion and provision of infrastructures that can uphold good quality living of the urban population. The creative city making can thus be considered as an enabler of inclusive development. Further, this paradigm focuses on who should be actually responsible for city planning and development.

To this end, it specifies a joint effort on the part of "holistic thinkers" who have understanding and knowledge of people, "social dynamics" (Landry 2016: 241) and culture of the city in planning and implementing urban development. Focusing on the social dynamics of the city, such kind of planning cannot neglect the problem of urban poverty in Indian cities.

The planning agenda here deems to introduce a shift from giving too much emphasis on land management towards more integrated planning that considers the importance of culture and society along with the economy. The city becomes conscious of the ecology and the culture in urban development. Consequently, there takes place a balance between fostering urban growth and in containing social exclusion and gentrification. Moreover, under this paradigm, citizen participation in decision making becomes a key aspect in solving urban issues and emphasizes on the use of smart applications in solving urban issues (Landry 2016: 249).

What can be deduced from the above discussion is that urban planning in India being guided by the forces of neoliberalism and globalization retains the capacity for furthering the issue of the urban-urban divide which is already a major characteristic feature of Indian cities. The Smart Cities Mission having its goal as uplifting the living condition of the urban poor cannot neglect the negative impacts of a planning process which is essentially driven by private players facilitating corporate urbanism. The planning process should, therefore, be such that, it fulfills the criteria of sustainability and inclusiveness in the development agenda. To this end, the many recommendations unearthed from the literature may be seen as viable options.

4.3 Financing

Just as effective planning is required for ensuring the success of urban development; adequate financing of the latter is an equally important concern. Urban development schemes and projects will not be successfully implemented if there is no adequate finance to support and sustain such schemes. The Smart Cities Mission aiming at creating a wide range of infrastructure depending on Information and Communications Technology (ICT) for enabling public services has a detailed plan for financing its projects.

The Mission would be centrally sponsored. The central government would financially assist potential smart cities by giving them Rs 100 Crores every year for the overall five year period amounting to Rs 48,000 Crores. However, an equal amount of financial resources will have to be contributed by the state or Urban Local Bodies for smart city development. Along with these,

Central and State Government grants will be leveraged to attract funds from internal and external sources (The Smart Cities Mission Statement and Guidelines 2015). Besides such financial arrangements, there will be other ways of raising finances for smart city projects. These would include-

> user charges, Public-Private Partnerships (PPPs), FFC recommendations (including land based instruments), Municipal bonds, borrowings from bilaterals and multilaterals, National Investment and Infrastructure Fund (NIIF) and Convergence with other Government schemes (Pratap: 4)

Funds will also be released by the Government to potential smart cities for preparation of smart city proposals and implementation of the same (Pratap: 4). Although the SCM provides for such a detailed guideline as to financing this large scale urban development programme yet it cannot be denied that generation of resources for urban development has many challenges to overcome. The ones which fall under the ambit of this discussion include the insufficiency of fiscal devolution to local government bodies, the incapacity of municipalities in generating revenues- both tax based and non-tax based and the failure of these government units in raising resources through innovative methods of municipal bonds or land-based financial instruments.

Urban renewal programmes have earlier face the challenge of inadequate financial resources. A major reference point here is the unsuccessful performance of JNNURM as a result of the programme's financial shortages. Reiterating what has been mentioned in the previous chapter about the contribution of the financial inadequacy of JNNURM towards its unsuccessful performance, the reasons for this can mainly be attributed to- fiscal devolution from central government was not up to the mark. Further, many projects under the programme could not be completed owing to the delay in fund released in the midst of escalating project costs. This was faced by many Urban Local Bodies (ULBs) like the Vijayawada Municipal Corporation (Kamath and Zachariah 2015: 12). Although it had sources of resource mobilization in PPPs, property tax, user charges and other innovative means like bond sharing, the ULBs failed to mobilize their shares in these respects. Many reforms had to be carried out partially as they could not raise resources adequately through property tax or user charges (Mohanty and Mishra 2016: 97).

Moreover, it is important to mention here that JNNURM took the first initiative in introducing PPP in the urban sector where –

> Forty-nine projects involving total project cost of about `5,458 cr were taken up under PPP framework in sectors likes solid waste, water supply, sewage and urban transport in which private concessionaire brought in investment of `1,066 crore" (Twelfth Five Year Plan 2013: 333).

However, PPP fails to be a primary source of urban development as these fail to generate resources through user charges alone because user charges are way too low in India. This was a major shortcoming under JNNURM (Twelfth Five Year Plan 2013: 323).

Apprehensions remain if the Smart Cities Mission can raise finances adequately to fund its implementation. The JNNURM's unsatisfactory performance in raising finances for funding its projects and the SCM's plan to finance its various projects will have to be understood at the backdrop of the pressing need for investment in urban infrastructure, given the current state of urbanization. Cities in order to develop need to invest a huge amount in the infrastructural front. According to the estimate of High Powered Expert Committee (2011) of Ministry of Housing and Urban Development[xiv], Rs 3.92 million crores would be required over 2012-31 for cities to develop its urban infrastructure that would include road, transport, water supply, sanitation facilities, renewal and development, and the likes. The McKinsey report (2010) proposes that India will be required to spend almost 9.74 million crores on its cities and 5.31 million crores for capital expenditure. With aggravated urbanization, the need for developing more and more urban infrastructures and hence their financing has become a pressing concern (Mohanty 2014: 153-54; Mohanty and Mishra 2016: 25). However, the current status of municipal revenues accruing from central devolution and other sources is too low to sustain such urban development.

The following table (table 4.1) provides a glimpse of the funds released by Government of India to States/UTs for Smart Cities Mission as of 31 March 2018

Table 4.1- Total amount of funds released to cities by the Centre from 2015-2018 under Smart Cities Mission

Years	**2015-16**	**2016-17**	**2017-18**	**Total**
Fund released to cities (*in Rupees Crore*)	1467.2	4492.5	4499.5	10459.2

Source: Smart Cities Mission India, GoI

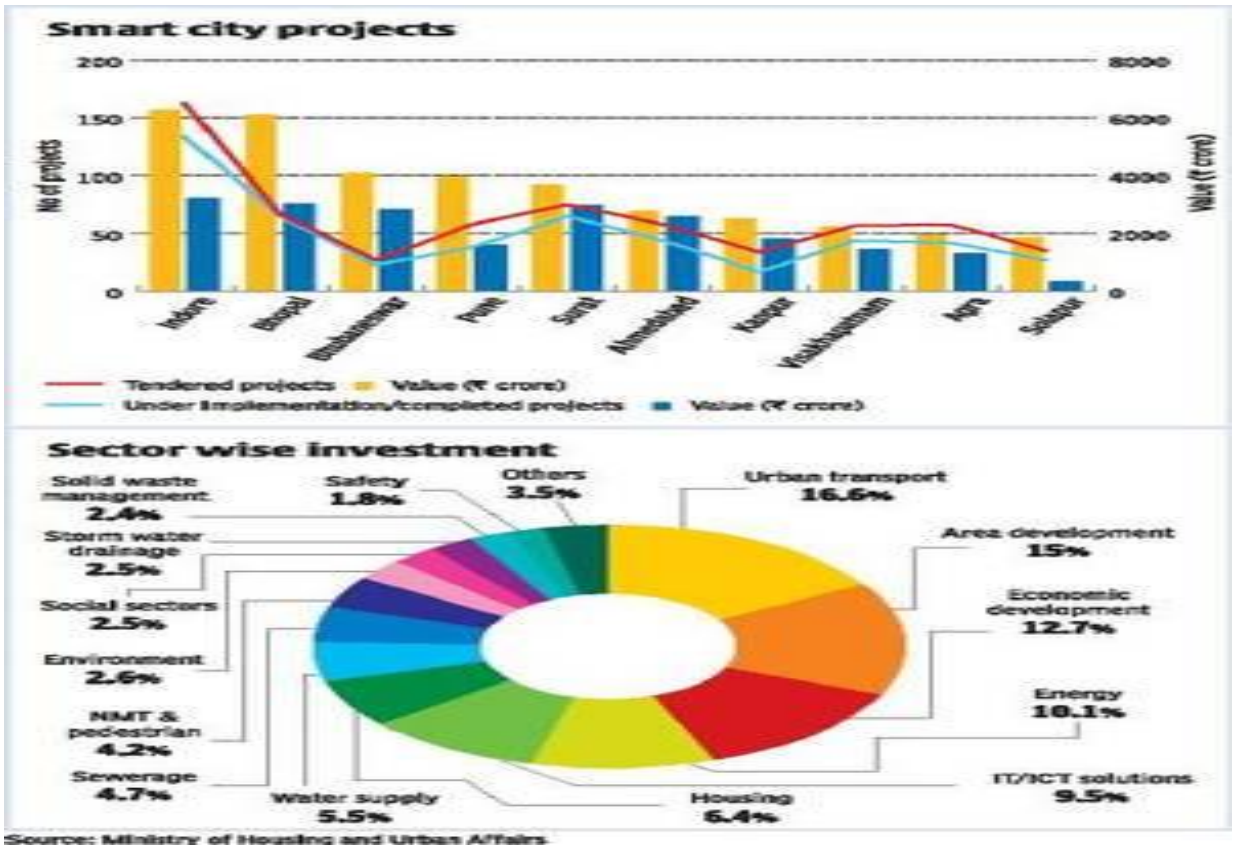
This table depicts that devolution of central funds has not been very satisfactory under the mission. In comparison to Rs 48,000 Crores, which was the total amount fixed to be provided in five years time, only Rs 10459.2 Crores have been released until 2018 which is not a commendable performance.

According to Isher Judge Ahluwalia, an expert in the domain of urban development, although urban renewal missions come up with large scale projects, the funding accruing from the centre covers only a small part of this. She further states that-

> The national urban missions have raised great expectations. But successful planned urbanisation for rapid growth requires commitment from the State governments and governance reform at all levels of government. The technology focus in planning for urbanisation must be supplemented with heavy emphasis on institutional reform (Jadhav 2019).

Moreover, allocation of funds to different sectors is not uniform under urban renewal programmes. The following figure (Figure 4.1) depicts sector wise investments made under SCM.

Figure 4.1- Sector wise investment under SCM as of 2018



Source: Jadhav (2019)

The figure clearly shows that the investments in different sectors are not uniform. In fact, the allocation of funds is skewed in favor of infrastructure sectors like transport, area development, energy and economic development. Other areas like solid waste management, social sectors or environment do not receive much funding.

The lack of financial sustainability of the municipalities largely depends on inadequate fiscal decentralization. Although the 74th constitutional amendment act (CAA) provided constitutional status to urban local bodies identifying their major functions, yet it did not specify the revenue base for such bodies making them dependent on the state governments. The 74th CAA, however, empowers the states to constitute state finance commissions every five years to set up principles following which the states would devolve their revenues to municipalities, determine the sources

of revenue, provide these grants-in-aid and take up measures to improve their financial conditions.

Contrary to constitutional specifications, only a few states have given financial autonomy to the local level governments. The state government's authority looms large over municipal government's power to raise revenues by virtue of taxation, charges, and borrowing. The state "set tax rates, grant exemptions, determine transfers to municipalities, and also the conditions of their access to market sources" with grant in aids and approving for PPP to municipalities being in their discretion (Mohanty 2014: 149). In the event of the states not following the recommendations of the state finance commission, the transfer of funds to ULBs remains unpredictable (Twelfth Five Year Plan 2013: 331). The Twelfth Finance Commission report has also pointed out how the recommendations of state finance commissions were not followed in "letter and spirit" by many states and the budgetary allocations to municipal governments were not well enough to serve the purposes (Rao and Bird 2010: 30). The Thirteenth Finance Commission report carried forward the same concern and drawing upon this the Isher Ahluwalia Commission set up in 2011 on financial devolution to ULBs claimed in its report that the capacity of state finance commissions should be strengthened and recommendations of these bodies should be given effect to a similar manner as Central Finance Commission recommendations to the Union government (HPEC report cited in Twelfth Five Year Plan 2013: 332).

Financial sustainability of the local level governments is a necessary condition for infrastructural development under urban renewal programmes like JNNURM and now the SCM. Thus fiscal decentralization becomes imperative to be established in the true sense of the term so that devolution of funds to the local bodies takes place at a desired rate and pace. Unless the state governments develop genuine concern with regard to this, financing of world-class infrastructures under the SCM will remain only in paper.

Besides relying on inter governmental transfers, it has been realized that the local governmental bodies are capable of raising revenues which could help them reduce the hard budget constraints that they face.

As per the seventh schedule[xv] of the Indian Constitution, the municipal bodies in the country can levy and collect taxes from within the state list as permitted by the state governments. Such power to collect their own taxes can certainly provide for adequate revenue to meet the expenditures of the local governments. Such taxes are- "taxes on lands and buildings, entertainment and amusement, limited advertisements, non-motorised vehicles, animals and boats, tolls and on professions and employment" (Rao and Bird 2010: 26). The municipalities also taxed on the entry of goods for sale and consumption to city spaces known as Octroi. Being inefficient, distorted and a "source of corruption" this tax was abolished by the state governments except for Maharashtra.

However, this tax was buoyant and provided a good amount of revenue to the municipalities. After its removal, no major attempt was taken to compensate for this loss of revenue by introducing a similar kind of buoyant taxation (Rao and Bird 2010, Mohanty 2014).

Besides, the Octroi being a major source of revenue to the municipal bodies, property tax evokes special interest because it has a potential to contribute generously to the revenues required by the municipalities to fund the urban infrastructural development. As of 2012-13 on an average, property tax constituted 16% of total municipal revenues and 30% of "own" municipal revenues in India (Mohanty 2014, Mohanty and Mishra 2016).

A study conducted by the Fourteenth Finance Commission on municipal finances with a sample of 478 municipalities shows that revenue from property tax increased to Rs 10,192 crore in 2012-13 from nearly half its amount in 2007-08 at Rs 5555 crore (Fourteenth Finance Commission Report: 116). Property tax is a tax levied on properties of local citizen that helps covering the cost for the services provided by municipal governments to some extent, therefore, taking the form of a benefit tax (Indian Municipal Finance Report 2011: 116). Property tax meets the criteria of suitable local taxation. Local taxation is the own source of taxation of the local level government bodies to be levied and collected from only local residents. Such taxation would, therefore, serve the purpose best if levied on immobile items because "taxes on mobile bases may result in their migration from higher to lower taxed localities" (Rio and Bird 2010: 25).

Also, property tax can yield a high amount of municipal revenues and capitalizing on its efficiency for such depends on factors- endogenous and exogenous. The former refers to the elements of "the base of property taxation, valuation system, including revaluation, determination of the rate structure, and the design of collection strategies" (Indian Municipal Finance Report 2011: 77) and the latter refers to how the growth on the economy of regions and cities can impact upon the values of property. The former has a direct bearing on revenues accrued from property tax (Indian Municipal Finance Report 2011: 77).

However, the municipal governments fail to harness the potentiality of property tax. This has many reasons as to this as Govind Rao says – poor coverage of property tax, inefficient collection, wide ranging exemptions, lack of revision of tax bases to check current property status (Rao 2013: 9-11). These lead to inadequate revenue productivity of property tax. Poor coverage and collection of this tax is further owed to factors like wide ranging exemptions of properties from within the ambit of taxation. This includes properties of bureaucrats, politicians, ex servicemen, religious, educational and charitable institutions, offices of trade unions, burial and cremation grounds and the likes. The pressing issue here is that even though these enjoy municipal services yet there is no paying back through property tax (Rao 2013: 9-11).

Coupled with this, there is a serious problem in the administration of property tax. This refers to poor information as to the existence of land and properties and their transfer on the part of the municipal bodies and the lack of registry of the same leading to ambiguities in determining ownership and tenancy rights. As such a large number of property owners do not pay the tax although they enjoy municipal services. The revenue productivity of the property tax is also undermined when there is no proper valuation of the property and it's updating according to the market rates (Rao 2013, Mohanty and Mishra 2016).

Generally, the tax base which is decided is representative of the locality in question and this value is too less than the market value. Citing Mathur, Rao claims that the values of the properties which are assessed remain 8-10% less than the actual market value (Rao 2013: 10-11). The Indian Municipal Finance Report (2011) by the National Institute of Public Finance and Policy after studying 31 municipalities found that "(i) 28.6% percent of properties were not on the house tax register of the municipalities; (ii) 8.8 percent of properties were exempted from

payment of properties, and (iii) 53.9 percent of tax demanded was not collected" (Indian Municipal Finance Report: 2011: 79). As such, the immense potential of revenue generation from property tax remains underutilized. The Fourteenth Finance Commission noted that many states do not even give the power to levy property tax to the municipalities where legislations as to this has either not been passed or still kept on table. Again such taxes have been levied on the basis of annual rental value which has either been not revised or has been reduced.

However, there have been attempts at reforming the property in India. It is imperative to mention here that the JNNURM had one of its reforms aimed at enabling a Geographic information System (GIS) mapping system to improve collection of property tax. This wanted to match properties which are paying tax to identify those who are not paying to ensure improvement in the collection system (Rao 2013: 11). However it did not face success owing to discrepancy in the designing this reform which could not estimate the base of the property tax on a scientific manner (Mohanty and Mishra 2016: 124).

Cities like Patna, Bangalore, Hyderabad, Ahmedabad and Andhra Pradesh have attempted reforms in the property tax system. Taking into consideration the positive aspects of these and some international best practices related to property tax, Mohanty and Mishra (2016) came up with some guidelines for realizing the revenue productivity of property tax. They believe that there must be in place an extensive and efficient legal framework for property tax so that the taxpayers can simply understand it and the tax officials can implement it. There should be property tax laws and tribunals to settle disputes regarding it. Tax officials must be trained so that they are competitive in this regard. Other things include expanding property tax base in a rational manner, improvement of civic services to demonstrate links between taxes and services, using e-tools like GIS and Management Information Systems (MIS) for tracking properties and updating and collecting property tax. Another important thing required is a strong political will to ensure efficient property tax reform (2016: 140). The Fourteenth Finance Commission suggests that tax base needs to be revised according to the inflation and efficiency has to be introduced at the levels of levying and collecting such taxes. It further recommends:

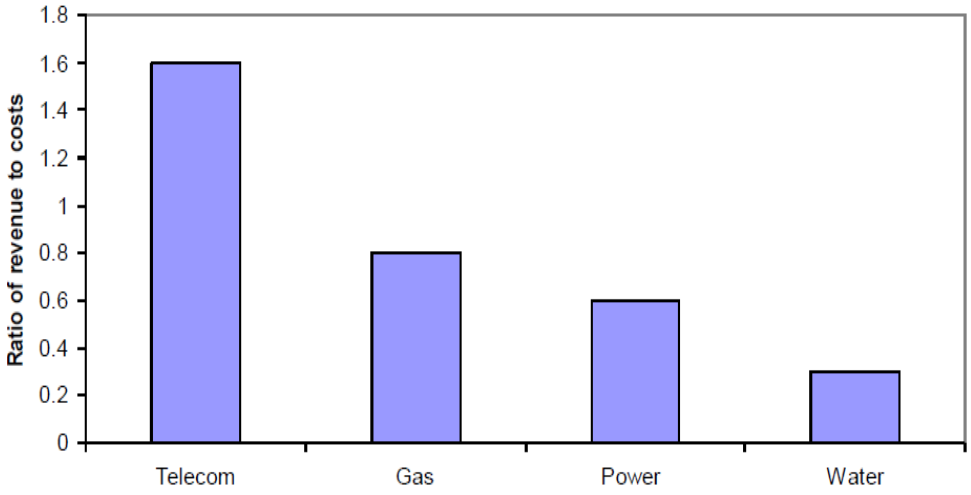
> the existing rules be reviewed and amplified to facilitate the levy of property tax and the granting of exemptions be minimised. The assessment of properties may be done every four or five years and the urban local bodies should introduce the system of self-assessment. We recommend that action be taken by the States to share information regarding property tax among the municipalities, State and Union Governments. (Fourteenth Finance Commission Report: 117)

Besides local taxation, the municipalities have other ways of raising revenues. This section would discuss one such non tax revenue- user charges. The literature recognizes how user charges can be a good source of revenue for local governments (Rao and Bird 2010; Mohanty 2016; Twelfth Planning Commission 2013; Fourteenth Finance Commission Report, and Indian Municipal Finances Report 2011). The Smart Cities Mission also mentions that user charges should be resorted to as an additional resource for funding smart cities. User charges refer to charging the public for services that they use. This indicates financially charging the users for civic needs like water, electricity, sewers, garbage disposal, public transit and recreation (Rao and bird 2010: 23). Price can be charged for such services where the direct beneficiaries of these can be recognized and the exact benefit can be measured (Mohanty 2014; Twelfth Planning Commission Report 2013).

User charges have many advantages for the local governance system. It has implication for making the public realize the scarcity of resources and on the government's part; it makes the latter realize what services are of value to the public. However, the efficiency of user charges can be realized only when services of good quality are provided as only these are worthy of being monetarily valued (Rao and Bird 2010: 24).

Again for extracting efficiency, "user charges need to be levied on the direct recipients of benefits. The poor may be subsidized directly where needed, rather than through reduced prices that distort the entire market for services" (Mohanty 2014: 168). User charges can certainly improve upon the financial condition of the local government bodies. However, in India, this remains highly under exploited. User charges are much lower to enable cost recovery for urban infrastructure (Pratap: 6). The following figure (Figure 4.2) gives an idea of the same-

Figure 4.2: User Charges for Specific Services



Source: Pratap

The current status of user charges in the cities is too less to cover the funding of infrastructural development. Charges for using services of water supply, sewerage, solid waste management in the form of tariffs remain very low and unchanged. Again municipal bodies lack the autonomy to fix and change such tariff rates being dependent on the state governments' approval. Accompanying this, the inefficiency of municipalities in coverage of such user charges and poor collection cannot be ruled out.

Also, specialized bodies which are not elected but are created to serve a particular purpose in a specific area within the state or city space are also entitled to provide public services. These are called parastatal bodies as these exercise functions like the city or state authority but minus public accountability. Examples of public health engineering departments and water and sewerage boards can be given which are responsible for providing services of water, sewerage and public health to the people although these are the functions of the municipal bodies. The state governments have failed to enable the municipalities to take over such functions from parastatal bodies.

Urban infrastructures can be financed through development charges that are levied on the property owners of land which is used for a development project indicating that those who are

benefitting from the increased property value due to the infrastructural development are taxed. However, there are two problems related to this in the Indian context. Firstly, due to the shortage of land and high demands for housing in urban areas lead to the situation where the buyers themselves have to bear the cost of development. Secondly, there exists parallel development authorities who take up the development programmes and thus the development charges go to them and not to the elected municipal bodies (Rao and Bird 2010: 34).

The Fourteenth Finance Commission Report points out how the user charges should be reviewed periodically and the local functionaries. Further, elected representatives along with the urban citizens must be sensitized on the importance of financial sustainability of local bodies and therefore payment of user charges for utilizing benefits out of municipal services should be ensured. Again user charges should be so rationalized that these are linked with quality service delivery and that these could cover up the operation and maintenance cost borne by the municipalities (Fourteenth Finance Commission Report: 119). The Twelfth Planning Commission realizing the significance of user charges in adequate resource generation claimed-" These charges should not only cover the O&M costs, debt servicing costs and depreciation, but also provide a minimal profit to the ULBs to facilitate creation of an equity base for ULBs over time" (Twelfth Planning Commission 2013: 332).

Public Private Partnerships (PPPs) are considered important sources of capital in financing urban infrastructural requirements like transport, water supply, solid waste management, sewerage and the likes.

> PPPs are commercial transactions between a public and a private party by which the private party performs a function traditionally performed by the public sector for an extended period of time; assumes related construction, commercial, and operational risks; and receives a benefit in exchange, either by way of public authority paying from its budget, or user fees, or a combination of these (Pratap 13).

Both JNNURM and SCM specified capitalizing on such partnerships in order to fund urban infrastructural development. However in urban renewal programmes, PPPs fail to be a sole funding source due to low user charges in the urban sector as mentioned before. There is an

argument for greater governmental support in facilitating private sector involvement in urban development financing. To this end, "standardization of bidding document" seems to be a good step forward whereby "Model documents are generic in nature and aim at lending ***transparency, consistency*** and ***predictability*** to the entire procurement process, allowing decisions to be made ***objectively*** and ***expeditiously"*** (Pratap 16). This also has greater scope for acceptability by the public, reduction in cost of transactions and capacity building (Twelfth Planning Commission 2013: 333).

Along with that, competitive bidding would ensure transparency, competition in market leading to value for money (Pratap 15). Not only is a private and public sector alliance will be beneficial towards urban development but also there is a need to foster people-private-public partnerships. Going by world experiences, the involvement of the component of "people" in urban management and designing of infrastructural projects as large as airways, power, and the likes will improve the ownership of these projects and also introduce the element of research in such. Also, gap in funding in these projects can be substantiated by property tax and other urban taxes (Twelfth Planning Commission 2013: 332).

The above discussion points out clearly that large scale urban renewal projects cannot be implemented until adequate finances to this end are available. This certainly calls for strengthening the financial sustainability of municipal government bodies with regard to transfers from the centre and financial resource generation from tax and non-tax revenues.

4.4 Governance

The element of governance is an important driver of effective urban management. How does the government manage and administer initiatives of development forms the basis of governance. So when urban development falls under the domain of local government bodies, it becomes important to understand how these bodies govern the process of urban development in the most effective manner where governance is the actual process of the government's exercise of authority in the economic, political and administrative capacities to manage the many affairs of the nation.

Any discussion of governance cannot be complete without bringing up the concept of good governance which has been of focus since its inception by the World Bank. In the Indian context, the second Administrative Reforms Commission[xvi] has pointed out the requisites of good governance among other things to be that the governance process should be participative in the line of citizen participation in the decision making process. A participative decision-making system makes the process of governance democratic in nature. Also, the affairs of the government should be made transparent, accountable and responsive to the public (Mohanty 2014: 222).

Therefore, good governance attempts to make the government's functioning as democratic as possible. In tune with good governance, there came up an emphasis on e-governance whereby the process of governance will be technologically mediated through the internet. That is to say that the governance procedure will be made transparent, accountable, responsive and participative through the internet. The urban governance agenda based on the Global Campaign on Urban Governance includes efficiency in public service delivery within the agenda of governance and also emphasizes on robust citizen participation in decision making related to urban development (Mohanty 2014: 224). The governance structure of the SCM has been so developed that the principles of good governance and e-governance are both implicated in it. A brief discussion of the governance structure under the programme follows.

The planning, implementation and governing of the urban renewal programme of Smart Cities Mission come under the authority of the local self-governments. However, there is a special body

set up for this purpose in every city aspiring to be smart. It is called the Special Purpose Vehicle (SPV) which would act in the capacity of a limited company under the Companies Act 2013. The state and ULBs together would share 50% equity in the SPV and will retain the majority control. The SPV will also consider private sectors and financial institutions for equity shares. The SPV will be controlled by a board of directors which will comprise nominated representatives of Central and State governments and of urban local bodies. Along with them, the SPV will have in its board independent directors, functional directors, additional directors if required and a Chief Executive Officer (CEO) (Smart Cities Mission Statement and Guidelines 2015).

It would have a lot of functions and powers in that capacity- to approve and sanction projects for smart cities with the execution of the same with complete autonomy and to mobilize resources for project implementations. Other functions are-

> To approve and act upon the reports of a third party Review and Monitoring Agency, to overview Capacity Building activities, to develop and benefit from inter-linkages of academic institutions and organizations, to ensure timely completion of projects according to set timelines, to undertake review of activities of the Mission including budget, implementation of projects, and preparation of SCP and co-ordination with other missions / schemes and activities of various ministries and to monitor and review quality control related matters and act upon issues arising thereof (Smart Cities Mission Statement and Guidelines 2015).

A lot of functions and the corresponding power of urban local bodies will be delegated to the SPV like the- decision making power and rights and obligations of the municipal council to the CEO of SPV. The SPV was to function autonomously and independently in the operational front for decision making and implementation with respect to the mission (Smart Cities Mission Statement and Guidelines 2015)

The Smart Cities Mission has elaborated on how the programme will be monitored. It has provided for monitoring agencies at the national, state and city levels known as the Apex Committee (AC), High Powered Expert Committee (HPEC) and Smart City Advisory Forum, respectively. The AC is composed of secretary, Ministry of Urban Development (MOUD) and representatives of related ministries. It can invite representatives of important stakeholders of bilateral and multilateral agencies like UN Habitat, World Bank and the likes. There will also be

a National Mission Director equivalent to the level of joint secretary who will be responsible for all the activities related to the mission. This body will approve and select smart city proposals, monitor the progress of implemented projects and release funds according to such progress (Smart Cities Mission Statement and Guidelines 2015)

At the state level the HPEC is composed of Chief Secretary as the chairperson, representatives of state government departments, Mayor and Municipal Commissioners of the specified ULBs and a State Mission Director equivalent to the secretary of the state functioning as a member secretary of the body. This body will be a platform for exchanging ideas pertaining to smart cities and will guide the mission. It will also review the smart city proposals (Smart Cities Mission Statement and Guidelines 2015)

The city level Advisory Forums include

> District Collector, MP, MLA, Mayor, CEO of SPV, local youths, technical experts, and at least one member from the area who is i. President / secretary representing registered Residents Welfare Association ii. Member of registered Tax Payers Association / Rate Payers Association iii. President / Secretary of slum level federation, and iv. Members of a Non-Governmental Organization (NGO) or Mahila Mandali / Chamber of Commerce / Youth Associations" (Smart Cities Mission Statement and Guidelines 2015).

This will provide advice and ensure collaboration among stakeholders.

Principles of good governance and e-governance found prominence in the SCM through its emphasis on robust citizen participation in smart city development through ICT mediated platforms. The Smart Cities Guidelines mention how the involvement of "smart people" in the governance of smart cities will be a necessary aspect of the smart cities mission. It states that citizen involvement will be 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" (Smart Cities Mission Statement and Guidelines 2015).

This will be ensured through ICT driven platforms like government portals and mobile phone based tools which will enable citizens to communicate their opinion about the development initiatives to the government. This will be facilitated by the SPVs in the respective cities. The government aspires for a highly digitalized democratic participation from its citizens. This can be in the form of assertion of opinions, democratic debates regarding matters of public importance and redressal of grievances related to governance through many online portals. It is very important for the cities to ensure public participation as this will be an important consideration for attaining central funds. The significant one in this context is the online platform of "mygov.in" which has smart cities as an important area of discussion on which the people can provide their comments, arguments and vote on six areas-

> (a) group based discussions on issues impacting different sectors such as housing, industry or environment, (b) online and on ground tasks where people can submit essays on given topics and participate in logo, vision or tagline design competitions, (c) discussions on specific local themes where people can comment which are visible to fellow commenters, (d) survey and polls where participants can vote for selecting services and projects of their choice, (e) writing blogs and sharing of experiences on concerned issues and (f) hold and post talks at realtime to invite citizens to engage in dialogue with policy makers and political figures" (Praharaj et al 2017: 1425-26)

The following figure (Figure 4.3) is a snapshot of the home page of the web portal- mygov.in which is a platform for digitalized citizen participation. It depicts the topics on which participation is welcome. It also portrays the number of people contributing to such participation as of November 2018.

Figure 4.3: Snapshot of the Home page of web portal- mygov.in

Source: mygov.in

The reliance on IOT (Internet of Things) to develop urban infrastructures that would enable public service delivery is an important ingredient of the SCM. To this end, cities which have been selected for implementing smart city projects have adopted ICT based infrastructures to enable good quality services to their citizens. In the first twenty light house cities there have been proposed some application based projects that rely on ICT. These projects will ensure that the residents of the city will be able to harness these services through mobile phone based applications relying on the internet. The following table (Table 4.2) mentions some of the

projects to give an idea of how technology mediated public services can be used by the public under this mission -

Table 4.2: List of selected mobile phone application based public services

Name of the City, State	Name of the Project/ Sub Project/Component	Sector	Brief Description
Kochi, Kerala	Integrated City App	Intelligent Government Service (App based Governance	To solve the mobility challenge and ensure citizen engagement this would use the Smartphone which will initiate a City App to integrate services from across the spectrum and provide one-stop solution for citizen services.
Ahmedabad, Gujarat	Smart Transit: Integrated Transit Management Platform	Intelligent Government Service (App based Governance)	Smart Transit – Integrated Transit Management Platform with Common Card Payment System (CCPS) – a web and mobile based application to ease access to public transit systems, provide real time tracking and plan trips & journeys.
Viskhapatnam, Andhra Pradesh	App for Public Open Spaces	Intelligent Government Service (App based Governance)	App based mapping & Information System for Public Parks & Sports

			Facilities in ABD
Imphal, Manipur	Safe Imphal- A mobile app for 24x7 safety of citizen and tourists.	Intelligent Government Service (App based Governance)	A mobile app for 24x7 safety of citizen and tourists
Agartala, Tripura	App Based Tele Medical and Information System	Intelligent Government Service (App based Governance	App for Tele Medical and Information System

Source: Smart Cities Mission, Ministry of Housing and Urban Affairs, Government of India

Besides application based solutions to urban problems, some other projects have also been proposed and initiated which aimed at applying smart solutions to urban problems. In response to these problems, smart solutions will be provided which will essentially rely on ICT and IOT. Few projects with regard to this under the Smart Cities Mission include the E-Mobility plan in Bubaneshwar which desires to improve upon the transportation and connectivity in the city by enabling 148 electric buses and 500e-rickshaws, charging stations and allied infrastructures by 2021 (Bhubaneshwar Puri Transport Services 2017). Again to solve the urban problem of waste water disposal there is a study for applying Soil Bio-Technology (SBT) process for Sewage Treatment in all ULBs of Andhra Pradesh (Report of AP PHED Team 2016)

However, there are major discrepancies in the governance system, working to the disadvantage of local governmental bodies' capacity to manage urban development in the most effective manner. The unsatisfactory performance of JNNURM could be attributed to the inefficiencies in the governance system. With the SCM in process, challenges that the programme would face as a result of weak governance in the country need to be addressed. There are certain features that make the system of Indian urban governance poor. These are- inadequate decentralization of power to urban local governments reducing their capability towards effective public service delivery, increased faith in the private sector and parastatal bodies in urban planning and governance leading to entrepreneurial governance, insufficient citizen participation and

gentrification of such participation in urban governance and inadequate ICT enabled citizen engagement in urban governance.

If good urban governance means the provision of public services to its urban population, local governments have failed to this end. Even after granted constitutional authority, the local bodies could not discharge effective civic services to the people also being crippled in the financial front because the state governments were reluctant in devolving power to the municipal bodies. James Manor (2010) informs how the state governments have violated the principle of democratic decentralization by denying adequate powers to the local governments. They have done this in two ways- in violation to the 74th CAA, first, many state governments from the very beginning held back powers to be shared with local bodies and second, although state governments have granted such powers to local bodies initially, later on they have "clawed back" such powers (2010: 68). Out of the subjects to be transferred to be administered by the local bodies as per the CAA, very few states have ensured so and many have transferred a lot less than what was specified. The local governments were denied funds which inevitably led to their inefficient functioning in the sphere of urban development.

Besides being paralysed with regard to financially autonomy as has been discussed in the previous section, the local bodies were poorly equipped in the human resource front.

> Unlike Central, state and district administration, there are no well-defined cadres in municipalities to discharge functions such as general administration, finance, accounts, public works, public health, parks, and plantations, town planning and poverty alleviation (Mohanty 2014: 230).

This issue found prominence in earlier urban renewal programmes. The governance of JNNURM beginning from project designing to the implementation was nothing but centrally coordinated. Although there was specific emphasis on fiscal and operational devolution of power to local governments, in practice these principles were grossly violated- "Its aspirations for decentralisation, capacity building, and equitable infrastructure services clashed with its operational realities of progressive centralisation, degraded local capacity, a greater commercial orientation of infrastructure development" (Sadoway et al., 2018: 73). Some progress did take place with regard to elections being held in some ULBs which were otherwise inactive. However, only eleven states could devolve functions to ULBs and many were not even in the

position to undertake these responsibilities owing to the lack of skill and capacity in service delivery like water, sewerage, roads and many more (Kundu and Krishna 2017: 40).

Along with the lack of capacities, there was a dearth of will- politically and administratively for undertaking reforms under JNNURM on the part of the ULBs. Again the benchmarks set for service delivery under the programme being in tune with a "centralized imagination of urban infrastructure", the fulfillment of which would ensure central flow of funds. This did not do much good to local level performance due to their various problems in service delivery and lack of autonomy in the operational front. Service benchmarks needed to be suitable to the local needs and capacities which in actuality were so set that these could serve the needs of domestic and international markets (Kamath and Zachariah 2015: 14; Sadoway et al., 2018: 74).

It is interesting to note with respect to decentralized governance in India that instead of building capacities of local governments, private and professional players have been brought in the domain of governance. Decision making on urban development and its implementation now rests in the hands of managerial and technical elites who are assumed to hold more efficiency in this respect. Also, the state devolved actual power to bodies which can be called user committees, stakeholder committees and parallel bodies assigned with particular functions like health, forest management and more as against general functions of local bodies. These bodies were not democratically elected but were appointed and remained mainly under the control of the bureaucrats or the ruling state party. While the local bodies remained crippled of enough funds to fulfill their obligations, these parallel bodies remained funded by donors (Manor 2010: 70-71).

This followed suit in JNNURM where a large network of private and professional players was brought in the planning, decision making, policy making, and implementation. These included international financial institutions like the World Bank, ADB, civil society and business groups like Bangalore Agenda Task Force (BATF) and Bombay First along with a large number of parastatals and think tanks. Such a mechanism fosters the element of entrepreneurial governance in urban development (Sadoway et al., 2018: 75). This holds true because, in the garb of good urban governance, there takes place promotion of commercial interests and the neoliberal agenda as elaborated under the first section. The dominance of SPVs in the world-class of the smart city project implementation implies putting faith in bodies other than the elected representatives of the people. Setting up of parastatal bodies is indicative of "institutional and structural shift from

government to governance" (Smitha 2017: 5). This refers to how the elected government of the people are bypassed in major decision making as this now becomes the prerogative of nominated professional bodies. These bodies being guided by the consideration of introducing efficiency in programme implementation undertake every possible measure which may not fall within a democratic framework. Thus, decisions for the welfare of people are now guided by the entrepreneurial mindset of global capital formation in urban development projects.

As mentioned above, the SPVs will be delegated with the decision making power of the ULBs and the powers required in the process of governing the SCM implementation. This provision has two implications- first, the elected bodies of government have to shed their power with regard to urban development and second, such power is now to be exercised by nominated bodies. Bypassing the authority of elected representatives of the people, urban development by virtue of urban renewal programmes becomes nothing but fulfillment of neoliberal ambitions at the hands of private players who remain oblivious to the main aim of urban development which is to promote the welfare of the urban population.

Further, if the governance of urban development is to be a democratic and accountable process, the executive power in the city must rest on an elected entity vested with adequate authority to the end of effective public service delivery and transparent urban development (Twelfth Planning Commission: 325, Mohanty 2014). However, in India there remains ambiguity as to who should be in charge of the city and the position of the Mayor is the most contested in this regard. The Literature recognizes that the purpose of democratic, accountable and transparent urban governance can be served best with the power of the executive head of the city being vested in an elected Mayor with a specified and long tenure in office (Twelfth Planning Commission 2013; Mohanty 2014; Rao and Bird 2010).

However, the current scenario in India portrays a much different picture. The Mayor in Indian cities is indirectly elected with inadequate power to run the city administration. The role of the Mayor is confused with the Municipal Commissioner who in actuality should be implementing policies of the Executive at the local level (Rao and Bird 2010: 16). In practice the Municipal Commissioner becomes in charge of the city with the Mayor being only a ceremonial head which is of a major concern because the former being a chosen official of the state government and not

appointed or elected by the local government remains accountable not to the local elected representatives and by extension to the local people but to the state government (Rao and Bird 2010: 16). Mohanty (2014) suggests how international experiences have shown that the elected executive head of the city could make the city function in the most efficient manner. In this context, he cites the instances of the Mayors of New York, London, Johannesburg and the Governor of Tokyo who have a proper tenure and is directly elected so that they act most efficiently in the management of the city space. The Indian Mayor being indirectly elected and having a very short tenure of one year with the exception of West Bengal is incapable of serving the purpose of effective urban governance (Mohanty 2014: 229).

Again an elected executive head will remain accountable to the local population and not to any higher tier of government. The accountability of the Municipal Commissioner to the state government conflicts with democratic accountability. Bangalore has ensured a different way of selecting the municipal commissioner whereby she/he should remain accountable to the local government and the Mayor. The literature suggests how other state governments should follow suit (2010: 16). The functioning of the city most obviously becomes dysfunctional owing to administrative ambiguities.

> While there are multiple reasons for India's urban woes, one of the underlying problems is the absence of powerful and politically accountable leadership in the city. Our cities have a weak and fragmented institutional architecture in which multiple agencies with different bosses pull the strings of city administration (Idicula 2016).

As long as city administration remains in the domain of state governments and unelected bodies and authorities, democratic accountability in the local space becomes a misnomer. The twelfth planning commission in appraising the JNNURM stresses on how adequate authority for urban development must be vested on an elected Mayor whose term must be extended to five years. The Isher Ahluwalia HPEC also claims that

> the executive head of the city will need to be empowered to run an efficient system of delivering urban services in a manner which har-nesses agglomeration economies, minimises con-gestion diseconomies and creates a socio-economic environment that attracts investment and generates livelihoods whilst adhering to the constitutional requirements of a duly elected legislative body, the third-tier of Government (Twelfth Planning Commission 2013:325).

Although parastatal bodies, special purpose agencies, and development authorities have been delegated the task of urban management on the grounds of "technical competence", procedural efficiency and "scale of resources" assumed to be beyond the capabilities and capacities of municipal governments, these have also been "afflicted by the same problems of inefficiency, wastage, insensitivity, non-accountability and corruption, which were freely laid at the doorsteps of the municipalities at the time when these parallel organisations were formed" (Sivaramakrishnan 2004: 15-16).

Besides, the major implication of involving non-elective or non-political bodies in influencing local governance is that of a corporate or business style city administration that rarely caters to the welfare of the urban citizens. Bringing in such private players in the arena of local governance creates a form of network governance (Smitha 2017: 10). Reiterating at this point how such a system existed in urban governance under JNNURM- it involved private players both national and international in the urban governance agenda.

The SCM follows a similar trend of network governance through a major emphasis on SPVs and on a wide variety of NGOs and civil society organizations under the monitoring agenda of the programme. If citizens' participation is a necessary component of good governance, should not the involvement of such citizens' group in the governance of the urban space is a positive move towards democratic city building? There is a problem associated with such groups which is essentially related to the risk of facilitating gentrification of participation which means that participation takes place majorly on the part of higher income groups. This bypasses the urban poor in participatory governance.

Residential Welfare Associations (RWAs) which are citizens' organizations in areas which are the residences of middle classes are very much prominent in cities like Chennai, Hyderabad, Mumbai, and Delhi. These bodies take part in provision of civic services and security to the

urban residents within gated communities. However, these bodies are composed of urban middle and high-class sections which show their civic activism through participation in city development plans which most obviously serves the interest of these sections having very explicit implications for exclusionary development. Sivaramakrishnan addresses that how far the involvement of such citizens' group will be relevant for the urban poor is a matter of concern. (Sivaramakrishnan 2004: 17).

Under the SCM, although slum associations are included under the monitoring agenda of the mission, apprehension lies as to their actual involvement in the process of urban governance considering how this section has been kept out of the process of world-class city making. This has been mentioned in detail in the first section. Also in the quest for making the city a globalized and commercial space, the involvement of RWAs indicates an elite capture of city governance. This kind of mobilization tends to be in favour of the state's larger agenda of creating the city as a zone for large scale capital investments with the middle class sharing a similar "modernist vision of the city" of global capital formation (Smitha 2017: 11). Such a city caters to the service needs of specifically the middle and higher income groups leading to gentrification.

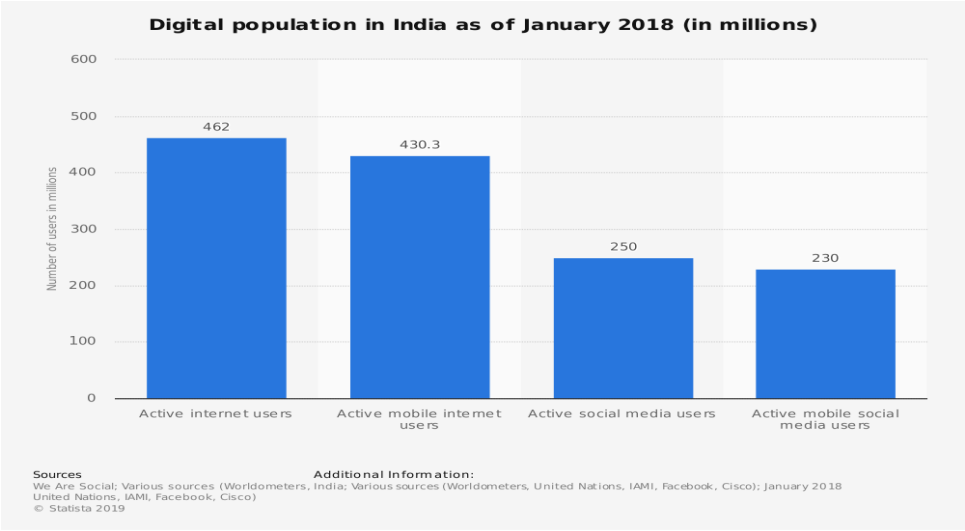
Coming to e-governance, what remains to be seen is how far the introduction of ICT can enable participatory governance under the SCM. The digital revolution in governance attempts to utilize tools of Information Technology in engaging citizens in civic life by making them true partners in solving urban problems. The introduction of e-governance has to provide participative forms of electronic service delivery. Urban citizens who are otherwise neglected can now by virtue of digital governance present their views by means of smartphones and the internet. The SCM provides enough scope for digitally enabled citizen participation in urban governance as discussed above.

However, as Kumar and Dahiya inform that e-governance retains the capacity for socially inclusive citizen participation albeit dependable on the access to internet and affordability of the same (2017: 55). Regarding the first factor, there has been a positive trend in access to the internet globally and very prominently in developing countries. The following graph (Figure 4.3)

shows a glimpse of it. With regard to India, in 2014 it had 215.6 million internet users who were supposed to rise up to 346.3 million in 2018 (Kumar and Dahiya 2017: 55). As of January 2018, India has over 460 million internet users predicted to rise to 635.8 million in 2021 (Statista Research Department 2018)

The following figure (Figure 4.4) depicts the total number of digital population in India in millions.

Figure 4.4: Digital Population in India as of January 2018



Source: Statista Research Department (2018)

Although the number of internet users is quite commendable in the Indian scenario, a major concern is that how far the urban population engages in the governance of the urban space when urban renewal programmes like the SCM specifically focuses on such citizen engagement. The study conducted by Praharaj et al (2017) is of particular significance here. The study looked into the level of digital penetration and the lack of it in the 100 potential smart cities and analysed how far and why citizen engagement has taken place or not taken place in urban governance by focussing on use of the online platform of 'mygov.in'. Their findings have been very interesting- very less percentage of households in technologically advanced cities have access to internet

with 10.3% in Ahmadabad, 4.6% in Solapur and 5.1% in Devangere and the likes (Praharaj et al. 2017:1425). Interestingly, there not has been much use of such online platform for participation from large metropolitan cities like Ahmadabad, Mumbai or Chennai but has been more in medium and small cities like Jhansi, Bihar and the likes.

The authors in their research attempt to find out what is the reason that actually drives digitalized participation. Interestingly enough, their finding states that world-class is not fostered so much by digital accessibility. Further, in contrast to what Kumar has pointed out, this study mentions that participation does not dependent on education. Kumar has been emphatic on how public availability of internet hubs and e-literacy are important factors in fostering engagement between citizens and local government. He draws on the instance of Kerala where 100% e-literacy has achieved by virtue of an institution named Akshaya which provides internet training for e-governance at a nominal fee The author gives too much emphasis on how with the increased accessibility and affordability of ICT, people's participation in smart city planning and decision-making will become robust and frequent. In this regard, he mentions how interactive websites should be designed properly like the urban design studio exercise as held in Calicut so that planning can be done online (Praharaj et al. 2017: 56).

Praharaj et al (2017) however claim that digital participation has its source in the "socio-cultural" and "political dynamics" of the cities. One such important aspect as recognized is the civic intimacy between the citizens and the government at the appropriate level, the local level in this case. As an extension of this logic, participation is not so robust in the portal of 'mygov.in' because it is managed by the central government and not by the local ones. There is a necessity to provide for locally based platforms for enabling more citizen participation (Odendaal 2003: 1432).

As such, the role of local government increases in enabling digitalized public participation and fostering democracy in urban planning and development. The local governments have more important roles in solving local problems. If ICTs have to be utilized in fostering participatory governance, then the digital divide has to be curbed by the local governments. To this end, they have to cater to the needs of the local people and provide them with adequate access to the digital

infrastructure (Odendaal 2003: 587). In a resource crippled society, the interface between ICT and local governments has implications for "digital/broadband infrastructure planning, universal access to Information Technology, incentives for the establishment of new high tech industries and promotion of small IT businesses in pursuing local economic development" (Odendaal 2003: 589). This would ensure democratic digitalized governance.

Therefore, the local government has to ensure proper mechanisms with regard to ICT mediated platforms in order to ensure local level citizen engagement in urban governance. However, their motivation in this respect is a matter of concern. Going back to JNNURM, there were eight modules like "property tax, accounting, water supply, and other utilities, birth and death certificate, citizen grievance monitoring, personnel management system, building plan approval, and health programmes" (Kundu and Krishna 2017: 42). These were required to be implemented through the application of e-governance. Out of the eight modules, only registration of births and deaths and grievance redressal were implemented through e governance by many states while many large municipalities remained comfortable with manual system of double entry book keeping with regard to the accounting system. (Kundu and Krishna 2017: 42).

It can be therefore deduced from the above discussion that the discrepancies that exist in the Indian urban governance system can pose challenges to the functioning of urban renewal missions. For enabling an effective governance system, the urban local bodies must be strengthened and well capacitated with skills and human resources. The elected bodies should be at the forefront of facilitating urban development instead of private players so that entrepreneurialism is not the underlying feature of such development. The principles of good governance and e-governance need to be preserved through the prominent involvement of well authorized elected local municipal bodies.

The above discussion compartmentalizes the challenges that the Smart Cities Mission would face into the aspects of planning, financing, and governance. Each of this aspect faces some discrepancies which must be adhered to if urban development has to be ensured.

As pointed out at the outset of this study, in chapter 1 that several reports and scholarly work have come out with a reference framework for overcoming major challenges, to be faced by the Smart Cities Mission. Some have been highlighted in the first chapter and some have been discussed above. However, the present study finds it imperative to understand that major challenges faced in the urban management system in India have to do with the overall administrative framework that they follow. In this respect, this study points out that it is the framework and principles of New Public Management (NPM) that guide the designing and functioning of urban development programmes in India. Such a framework does not seem suitable to the Indian context and therefore overcoming the challenges in urban development may require a shift in the administrative framework employed. The next section discusses this issue.

4.6 Framework for Governance

The overall approach to urban development should be a matter of concern which has to do with the market mania that guides decisions of development in today's globalizing world. The pressing need for following a neoliberal agenda in furthering development guides city planning and governance in developing countries like India which although imitates the Western approach, apprehension arises as to the contextual feasibility of the same. The question of feasibility comes up when this approach in urban development fails to conform to the aim of inclusive, just and good quality living of the urban population.

Urban renewal programmes like the JNNURM and the SCM face many challenges in their attempt of urban development due to the approach they employ in planning and implementation of their development agenda guided by the overwhelming force of Neoliberalism. Neoliberalism finds its administrative manifestation in the policy perspective of New Public Management (NPM). The question is whether the policy specificities of NPM which evidently seems to guide the functioning of urban renewal programmes is the correct way to fulfill the objectives of city development in a developing country like India?

NPM came to be nurtured as an attack on the Weberian model of state administration (Poggi, 2017; Drechsler 2005). Based on Max Weber's ideal notion of the modern state and bureaucracy, this model emphasized the central contribution of public institutions, in fostering development. Weber held high the idea of a most efficient system of administration in "a set of offices in which appointed civil servants operated under the principles of merit selection (impersonality), hierarchy, the division of labor, exclusive employment, career advancement, the written form, and legality" (Drechsler 2005: 7). The strong public institutions could even foster prosperity in wealth and economic growth. Further, Weberianism could also enable inclusive development in developing countries. Henderson et al. (2007), in their work, have shown how Weberian public institutions had a positive relationship with poverty reduction substantiating this claim after studying twenty-nine developing and middle-income countries (2007).

However, the principles of Weberianism could not continue to foster development. Concern arose when the self-centered public institutions and bureaucracy started creating legitimate problems hindering economic growth instead of fostering it. Also, the legalistic domination of public administration and the rigidity of formalism in its organization prevented it from adopting a problem-solving approach, of organizational changes and "other shifts in public life" (Drechsler 2005: 8). An alternative way of administrative functioning was provided by New Public Management (NPM). In contrast to Weberianism, NPM celebrating the ideas of privatization and deregulation moved towards a minimal state reducing the size and cost of public institutions and bureaucratic apparatus also constraining their activities in fostering development. Accompanying this were the principles of managerialism, corporatism, and private sector methods in the functioning of the state.

NPM as a policy framework in Public administration seeks for more efficiency in the performance of government with respect to the provision of public goods and services. To trace its dominance as an approach to governance, it was in use in the 1990s losing its viability by 2005 (Drechsler 2005: 2). However, it still finds a place in scholarly discourses and in many policy guidance.

4.6.1 NPM in Indian Urban Development

If the approach towards facilitating urban development seems to be guided by the principles of NPM, the question comes up that- how far such principles can entail a successful functioning of urban development programmes like SCM?

Developing countries initially relied on the Weberian model in its administrative functioning. There was an overwhelming emphasis on "statist approach towards development relying on the efficacies of the bureaucracy". However this approach "failed to keep pace with the exigencies of modern society owing to excessive bureaucratism, routinization, dysfunctionality, and unresponsiveness, change-resistance accompanied with inefficiency and low levels of accountability, transparency and politicization of service-delivery" (Zafarullah and Sarker 2016). Excessive state intervention became deterrence to the desired change in economy and society. As such, reforms in the Western administrative principles influenced developing countries to follow suit. This reform essentially was related to the adaptation of NPM principles in the agendas of development.

The applicability of NPM in the context of developing countries' urban development may not lead to the best outcome. This is because adapting to Western ideas of governance framework can be "self-defeating" because developing countries have their "unique traditions, socio-cultural characteristics, political styles and economic arrangements" (Zafarullah and Sarker 2016). Urban development programmes in India as evident from the discussion of JNNURM and SCM, tend to follow the guidance of NPM style functioning. As the Smart Cities Mission has been the focus of this study, it will be elaborated again how principles of NPM stand in congruence with the designing and implementation of the programme to offer a clearer picture.

Privatization and contracting out of public service delivery- Under NPM, there is an increased emphasis on privatization whereby there will be "a wide variety of alternative service delivery mechanisms including quasi-markets with newly separated service providers competing for resourcing from the policy-makers and funders" (Manning 2001: 299) having implications for private-public competition or partnerships inducing cost effectiveness. As a corollary to privatization of public service delivery, contracting out of public sector functions came to be

encouraged. Contracts with private sectors were seen as a "key to explicating performance standards" (Hood 1995: 96) Such orientation of NPM sums up that how it is symbiotic with the neo-liberal agenda and its understanding of state and economy (Drechsler 2005: 1)

Congruence with SCM- the SCM in its functioning capacity does justice to this theme of NPM. The focus being on efficient public service delivery there is a greater reliance on privatization of the same. There exist great partnerships with private sectors inculcating a sense of competitive spirit in service delivery.

Managerialism - There was a clear change in the management style under NPM. There was a stress on applying private-sector management tools to public sectors as the former was tagged with proven effectiveness. Professional managers were to take charge of public sector functioning in order to raise its performance standards (Manning 2001; Hood 1995; Gruening 2001) Top-down management had to exist as "Accountability requires clear assignment of responsibility not diffusion of power" (Hood 1995: 96) Adoption of private sector management culture and orientation called for treatment of citizens as customers and being accountable to them for the results produced (Manning 2001: 299).

Congruence with SCM- Besides upholding the values of privatization, the implementation and functioning of SCM seem to be imbibed in the ideas of managerialism. Imperative to mention here how SPVs are to be created in every selected smart city for implementing and monitoring project functioning. As discussed just above how these are to function in the capacities of a limited company holding enormous powers. These bodies are parastatal agencies which are to inculcate the spirit of entrepreneurism in their operation. Professionals in these bodies are hoped to act in the most effective manner upholding values of private sector management culture. Citizens are to be treated as customers whose satisfaction with regard to public services tops the agenda. Delegation of a large number of tasks of municipal governments, to these parastatal bodies, also seems to present, a top-down management and regulation system, with immense faith in professionalism.

Output control- NPM emphasizes on output, that is the result produced. Formal measurement of success and matching the performance standards became very significant. Efficiency being the key word could be achieved by looking towards the goals (Hood 1995; Manning 2001).

Congruence with SCM- the SCM also looks at the higher aim of creating world-class cities attractive enough for domestic and international investments in the process lifting the standards of living of the urban population. To face the challenge of urbanization making use of the city space in the most effective manner looms large in the mission. As PM said "high growth urban centres where our cities would no longer remain a reflection of poverty and bottlenecks - rather that they should become symbols of efficiency, speed and scale and this would happen through a 100 new cities enabled with the latest technologies and infrastructure that would be built for them" (Khosla 2015: 11)". Outputs with regard to public service delivery with a greater reliance on ICT so that the best effective results are achieved stand significant in the mission agenda.

More use of Information Technology – Use of information technology in public service delivery does not have a theoretical root in NPM having a pragmatic basis nevertheless. It has to be applied wherever useful (Gruening 2001: 17)

Congruence with SCM- This feature is indisputable with SCM. The very essence of smart city formation and the characteristic that makes it stand apart is reliance on ICT and provision of public services in a networked fashion. Technology-mediated service provision is deemed to be the most efficient. The Smart City Mission in India emphasizes on how robust IT connectivity and digitization in providing public services would be an integral feature of cities

In India, the urban spaces are characterized with issues of the urban-urban divide, weak local government bodies, digital divide and infrastructural deficits accompanied by inadequate financial resources among other things. As it turned out in this study, in India's urban development following NPM has failed to mitigate these issues still plaguing the country's urban spaces. This once again typically demonstrates the fact that what works in the Western context may not be best suitable in the context of developing countries.

The unsuitability of NPM in developing countries like India can be attributed to the fundamental principles of the NPM. The principles of NPM such as managerialism, corporatism, privatization, deregulation, and many others point towards the emergence of certain themes in

the administrative framework. The themes include the introduction of a minimal state, a dichotomy between politics and administration and a shift from the idea of government to governance.

A minimal state has less to contribute to the process of development as this task is now performed by private players. The administration now is guided by the principles of efficiency, economy and effectiveness to whose end private sector methods are employed and private players are brought in to administrative functions. Therefore, political actors and public officials who are originally endowed with administrative functions begin to shed power in this respect indicating a break of administration with politics. Further, the shift to governance entails maximum efficiency in public service delivery. It is a shift from the idea of the government taking sole responsibility for the provision of services because private sectors and their methods dominate service delivery.

These emerging themes under NPM may lead to a kind of development where principles of democracy may become obsolete. This is because of the very obvious reason that now administration being controlled by private players and their methods, in an urge to introduce maximum efficiency and economy has its focus mainly on profit maximization and upholding of neoliberal principles. To this end, the most effective tools are employed even if these are not democratic. For instance, when privatization and marketization is introduced in public service delivery bypassing the role of an elected government to this end, high-quality services may reach only to those sections in the society who may be able to afford these. The marginalized sections may not be catered to in this respect. Such trends may go against democratic development. The fall out of such an approach to development is social exclusion, bypassing of elected governments in decision-making, less public participation in the development process and gentrification of the same-all notable in the SCM in India.

Kaboolian referring to Kelly argues how the rational-choice underpinning of NPM can challenge the "legitimacy of democratic institutions in heterogeneous societies attempting to maintain an inclusive polity" (Kaboolian 1998: 191). As noticed that NPM focuses on privatization, contracting out and outsourcing of public services, there arises concern as to the feasibility of this logic dependable on "clarity and directness of the policy to be implemented, lines of responsibility and the performance standards" (Kelly 1998: 205). Such an arrangement binds the

government and the private sector into a principal-agent relationship in which the former would set the performance standards, limits and criteria with the private sector chosen in a competitive market place, acting on behalf or with the government (Kelly 1998).

However, a delegation of power can have negative implications for a democratic set up when the efficiency and performance oriented actions go against an inclusive democratic agenda. When the core functions with regard to major policy decisions become the prerogatives of non-elected officials, there will be apprehensions as to a just, fair and appropriate public service delivery This phenomenon has been explicit both under JNNURM and SCM where the urban poor were kept out of the neoliberal development agenda.

Further, contracting out or outsourcing may create a problem as to the specific boundary between the working of the government who is the elected representative of citizens and the contractor, who is a non elected background worker for the government. This can lead to uncertainty whereby "it becomes harder and harder for the government to be an indepen- dent, knowledgeable buyer, capable of managing in the public interest so as to promote the general social welfare." (Kattel quoted in Kelly 1998: 206). As observed in previous discussions, under SCM, a delegation of the powers of elected local bodies to SPVs makes the former less independent in the sphere of urban development where major decisions are taken and implemented by the nominated professional bodies.

Moreover, treating the citizens as customers has its own defects. Customer satisfaction is not synonymous with citizen accountability. The status of customer comes with an individualistic overtone contrasting with the public orientation of the political life. Such individualistic orientation is also conflictual with an understanding of citizens' own rights and relationships with others in the polity. Also viewing citizens as customers reduces the accountability and responsiveness of the elected representatives (Kaboolian 1998; Kelly 1998; Drechsler 2005)

As it has turned out in the case of India, both JNNURM and SCM have witnessed the above-mentioned discrepancies largely arising from the incongruence between NPM principles and urban development in a developing country. The planning, financing, and governance of urban renewal missions working within the framework of NPM, as seen in details in the previous chapter, has not gone well with India's democratic development. The public institutions taking a

backseat in fostering urban development has led a vast majority of the urban population in a disadvantageous position. Delegating powers to private players instead of strengthening the efficacy of elected local bodies has made urban development more of a business motive going against the actual aim of uplifting the quality of living of the urban population.

The main concern here is how urban development can be made democratic in the existing scenario? According to Lynn, the administrative tasks of "negotiating outcome goals, output measures and resource allocation are to be politically determined" (Lynn quoted in Kaboolian 1998: 191). As Lynn claims with reference to post-communist states jumping to the adaptation of modern management systems without establishing a solid base for democratic development will not do good to the applicability of NPM principles (Lynn Jr 2008)

The same can be applied in the context of developing countries like India that unless and until the base of democracy is strengthened with respect to urban development which necessarily depends on strengthening local bodies in the capacity of their composition, financial sustainability, and functioning, market-based principles in urban development will only be self-defeating.

The question then arises is what can an effective alternative governance approach to Urban development? Can NWS be the answer?

4.6.2 Feasibility of NWS in Indian Urban Development

The feasibility of Neo-Weberianism lies fundamentally in its capacity to accommodate and reconcile some features of both Weberianism and NPM. It originated as a response to the limitations of NPM. As a matter of fact, it combined "host of features of the Weberian tradition of thinking about the state (centrality of the state, hierarchical management mechanisms, stability and predictability, civil service ethos) with the elements of market-oriented public management(efficiency, economization, competition) and public governance (participation, consultation)" (Poggi 2017). NWS brings back the significance of representative democracy by highlighting the need for citizen participation and consultation in governance and by upholding

the necessity to maintain competence and stability of public bureaucracy (Randma-Liiv 2008: 78).

Despite its recent origin, NWS has proved to be efficient in dealing with administrative problems of Continental Europe and transitional economies. Arguing for the viability of NWS strategies in these nations, Randma-Liiv (2008) highlighted the significant differences between NWS and NPM and preferred the former over the latter. The same might as well be applicable to the context of developing countries in their agenda of urban democratic development.

The basic difference between NPM and NWS lies in the conflict between a minimal state or an overbearing one, technocracy or democracy, and marketization or bureaucratization. While NPM stresses on the withdrawal of the state in ensuring development, the NWS brings back the importance of state and public institutions in the same. Technocracy of NPM relies on the efficiency of the private sector while NWS reiterates the importance of representative democracy, citizen participation and consultation in the development agenda. While NPM upholds the efficiency of market forces in allocating resources, NWS relies on selective marketisation strategies along with appropriate space for social actors and believes on the state to correct the irregularities created by market forces (Randma-Liiv 2008: 74-75).

This study stresses on the fact that in Indian urban development and specifically in SCM, enough political intervention is required in its successful functioning. In many aspects, the prominent role of the state and most specifically the urban local bodies are called for.

For instance, in order to deal with the condition of urban poverty, the state has to take a dominant role. This is because the private players guided by profit motive will not be interested in uplifting the marginalized. Reiterating how under JNNURM, enough housing could not be enabled to the poor by PPP. Market-based solutions to urban problems can lead to taking fast decisions which may turn out to be risky as prior analysis has not been resorted to. The state must be the one to provide a proper framework for the market to function-“it is most appropriate to create certainty via a fixed order of responsibility in provision of crucial public services rather than relying on the wonders of private-sector practices or competition” (Randma-Liiv 2008: 75).

In the SCM, proper lines of responsibility are required to be fixed. This necessarily implies strengthening the position of local bodies in facilitating urban development. Delegating their powers to SPVs or other monitoring agencies only leads to bypassing elected representatives and therefore poor service delivery. Adequate decentralization of power along with fiscal devolution is a major requirement for efficient service delivery. NWS with its focus on state can ensure keeping the power of local bodies intact.

Even in the view of globalization and technological change, the centrality of state does not seem to be infeasible under NWS. The state adapts to these conditions and "possesses the political, organizational and managerial capacity" (Zafarullah and Sarker 2016) to confront problems emanating from these. Moreover, "an administrative law in place ensures equality for all and reduces scope for arbitrary actions of state agencies providing basic codes pertaining to the citizen-state relation" (Zafarullah and Sarker 2016). The problems created by market mechanisms under SCM can be corrected by NWS principles as the state has in-built mechanisms for ensuring "equality and equity, administrative efficiency, societal inter-relationships and networking, effective public-private synergies" (Zafarullah and Sarker 2016).

Even in network governance and PPP, the support of the state is important. Reiterating how PPP could not be a mainstream source of funding under JNNURM due to low levels of user charges which the private sectors could not capitalize on. Under SCM it is required that the state and especially the local bodies create a proper base for user charges so that potentialities of PPPs in funding projects can be realized.

However, there might be apprehension as to how a bureaucracy under the state system can enable a massive and technology-based development as the SCM. It is imperative to mention here that under NWS, there is a major shift in the orientation of bureaucracy from Weberianism. In NWS, there is a focus on the creation of a "society- sensitive and interactive bureaucracy" (Zafarullah and Sarker 2016) that would make the basis for an inclusive developmental state that would not only foster economic growth but would also enhance human development and social progress. Following this approach, SCM may rely not only on the creation of world-class cities

serving interests of corporate capital alone but also likely to ensure the upliftment of the marginalized and basic service delivery to the urban population as well. Moreover, the bureaucracy in NWS emphasizes on citizen consultation, one of the main basis of a smart city.

Can NWS be suitable for a development that relies on ICT on such a massive scale? The IT sector in India has a lot of discrepancies as has been discussed. There is a lot to be done by the political leadership on the policy front. This includes-

> setting up of a proper regulatory mechanism for the IT sector, provision of training and education for providing skilled labor in the IT sector, enabling access to telephonic service and the internet to a major portion of the population and provide for a domestic internet backbone (Singh 2003: 24-43).

It is the state which has to take necessary and sufficient policy measures to first create the ground for development as massive as the Smart City Mission. High scale innovative developments with a synergy with ICT nowadays cannot neglect state institutions at the behest of private players as any kind of major shift and innovation require an "active state with strong administrative capacity" (Drechsler 2005: 5).

The prerequisite for an Indian smart city with its strong emphasis on digitalized service provision will therefore require such a set up that will ensure a "particularly capable state actor and a science and technology policy implemented by a civil service that is denoted by long-term thinking, high competence and tolerance for mistakes- the opposite of NPM" (Drechsler and Kattl 2008: 97). The point to be noted is that before embarking on market-oriented reforms, the question has to be asked whether India is ready to accommodate change at such a grant level. A lot of things have to be fixed first especially the local government bodies need to be made strong enough both authority wise and with regard to financial sustainability so that urban development can be carried out in the most democratic manner.

4.7 Conclusion

Besides discussing elaborately on how inefficient planning, inadequate financing and a weak urban governance system would pose serious challenges to the successful functioning of the SCM, what this section has tried to establish is that in the process of facilitating urban development, the administrative system should be guided by principles that suit its context. Relying solely on market-based principles in solving urban problems has not been the best way to go about urban development in India. Although market-based principles may be resorted to in fostering massive urban renewal programmes yet the prominent role of the state and specifically the urban local government, which is endowed with the task of urban development must be brought in. This will ensure a development that will be characterized by accountability, transparency and citizen participation upholding the principles of democracy and inclusion. NWS may not be the undisputable answer to the problems of urban development in India. Nonetheless, the application of this may be considered a viable option is given the inadequacies of NPM style functioning in a resource crippled and heterogeneous society like India.

Chapter 5
Conclusion

5.1 Summary of Research

The research is placed in the context of aggravated urbanization. It sought to study the response of the Indian government to this situation which took the form of urban renewal missions. To this end, it looked into the Smart Cities Mission of India (SCM). It made an exploratory study relying heavily on a review of literature and desktop research to look into how the SCM would face challenges in the path of successful urban renewal, which formed the main research question. These challenges were related to the many issues that occupy significance in the management of the urban space in India.

The study focused on three such aspects of urban management- planning, financing and governance which could be considered as important challenges in the working of the SCM. These three aspects were looked at in detail particularly because a prior urban renewal mission - the JNNURM - failed to deliver successfully owing to the inefficient planning, inadequate financing, and discrepancy in governance. The focus on JNNURM was mainly because it was credited for bringing major reforms in urban infrastructure and governance, and could serve as a predecessor and template for the SCM.

This research, therefore, went on to understand how the SCM that provided a way forward in solving problems of urbanization would face challenges with respect to the similar aspects of planning, financing, and governance which have also been identified by the Twelfth five-year plan as the major enablers of effective urban management.

In order to answer the research question, the objective of this research has been to deal elaborately with each of this dimension of planning, financing, and governance with regard to urban management to provide an understanding of how these would be significant considerations in the functioning of SCM. In this respect, the JNNURM has served as a major reference point.

5. 2 Lessons learned from JNNURM-

To deal with the problems posed by increased urbanization, the Indian government came up with measures to manage the urban space. The five-year plans have contributed significantly to this, with occasional schemes for urban development. There was a particular trend noticeable in dealing with urban management under the five-year plans. There has been a shift of responsibility from government authorities to private players and the subsequent introduction of market-based approaches in urban management. This tendency has been in tune with a neoliberal agenda that looms large in today's globalizing world and found prominence in many urban renewal programmes of the government. Consequently, it led to many challenges in achieving successful urban development.

Understanding what challenges the SCM mission would face in its successful working has been the focus of this research. However, before going into the SCM in some detail, it looked at what were the challenges that the prior urban renewal missions have faced in order to get a clue as to what this mission would face as possible challenges.

In this respect, JNNURM seemed to be an apt reference point because, among other things, it not only added an innovative dimension to the management of the urban spaces but also provided a template for national urban renewal initiatives, including the SCM. The JNNURM came up with huge reform initiatives- schemes and projects directed at efficient governance, better infrastructure, and improved service delivery. However, it could not deliver successfully and was withdrawn at the end of its second phase in 2015. Its unsuccessful performance has been attributed to

- Inefficient planning- This included informality in urban planning and land usage, political considerations in decision making, lack of skill and capacity to plan and execute projects, nonalignment with local priorities, and lack of stakeholder participation
- Inadequate Financing- This referred to slow release of central grants, the regional bias in the allocation of funds and financially unsustainability of ULBs to raise resources.

- Discrepancy in governance- This resulted from lesser autonomy to local governments, lack of public participation in decision making, more focus on privatization and technical consultancy and no skill development of urban local bodies.

Referring to JNNURM, it has been evident that major discrepancies lie in how the urban development in India is generally planned, financed and governed. As such, when urban development is again resorted to under the auspices of ambitious missions like the SCM such these seem to stand as major challenges in its successful functioning. The most important finding of this research has been that unless these discrepancies are attended to, no urban renewal mission can claim successful performance.

The discussion that follows is the summarization of the findings of this work with regard to its research objectives that is what challenges would the functioning of the SCM face with regard to inefficiencies in urban planning, financing, and governance? Effective urban management would certainly depend on how well the urban space is managed, to what extent are finances available for building urban infrastructures and how efficiently the process of urban development is governed.

5.3- Summarization of findings-

5.3.1 Planning

Urban development or renewal calls for management of the urban space in such a manner that the urban population can live a good quality life that necessarily depends on the availability of basic services of good standard in the form of housing and other infrastructures. The government strives for this through its many urban renewal missions. Therefore, the urban space ought to be planned accordingly so that the urban population benefits the most out of it. The SCM had its aim as uplifting the living standards of the urban population. Its mission guidelines elaborately lay out how cities will be planned, including land management, so that basic services and infrastructures can be best utilized by the urban population.

It must be noted that adhering to the needs of the urban population includes within its ambit the upliftment of the situation of the vast majority of the urban poor in Indian cities. The urban poor who are exposed to residential, occupational and social vulnerabilities constitute 93.05 million of the total population in the country as of 2011. Unless urban renewal missions cater to the needs of this section, its aim of uplifting the living standards of the urban population will remain partial. The SCM came up with a plan of area-based development intending to transform the existing slums where the urban poor resides, into planned areas and spaces worth living. Moreover, through the use of technology, information and data the mission wanted to provide good infrastructure and services to the urban poor thus fostering an inclusive development However it only led to large scale slum eviction in cities like Bhubaneswar, Delhi, and the likes.

Urban renewal programmes could not uplift the living standards of the urban population in the truest sense of the term as the problem of social exclusion could not be dealt with successfully. Moreover such a condition has also been furthered by these programmes. This research found out that the reason why urban planning fails to ensure an inclusionary development is due to the trends that it follows albeit infeasible to the Indian context. Such trends conform to neoliberal principles which remain responsible for exclusionary development. This approach was visible in JNNURM and now in SCM. This trend refers to an increased faith in the application of

- Market-based solutions to urban problems which include private and global alliances for developing upon urban infrastructures in manners that can promote local urban competitiveness.
- Giving preferences to decision-making guided by cost-benefit and not so much by social welfare and service delivery of equity in the urban spaces.
- Urban development is driven too much by the creation of world-class cities attractive enough for global capital investments and
- Privatization of planning whereby the government relies more on the efficiency of private players and parastatal bodies in urban planning so that the image of the city is such that it can be a perfect space for global capital accumulation.

Such trends in an urban planning dispute with the aim of an inclusionary urban development as the urban poor and disadvantaged sections are kept out if they come in the ways of creating a modernized urban space. Along with such trends, another major lacuna of urban planning lies in

the adoption of master plans in managing land for various services. Master plans being rooted in British planning tradition are mainly a mechanical and technical process of land management by top professionals in the field planning tradition. Consequently, it failed to address the necessity and participation of the urban poor in the development agenda.

This research, drawing upon a synthesis of the literature, could locate major recommendations that could be referred to by the SCM so that urban planning can be democratic to the extent of ensuring an inclusionary development.

- Mohanty (2014) spoke of "strategic planning" that includes flexible land use planning, accommodating poor and low-income group residents by providing them space according to the income distribution structure of the city among other things. However, as Farthing points out in a strategic approach to planning, local governments have to partner with private sectors introducing an entrepreneurial style of planning. With the private sectors becoming major players in urban development, the risk of social exclusion comes up nevertheless (Mohanty 2014).
- Mohanty and Mishra drawing upon best practices spoke of Inclusionary Housing/Zoning where spatial planning and distribution is done in such a way that adequate spaces are granted to the urban poor. Introduction of this system requires a change in policies whereby urban developers need to take responsibility for providing spaces for housing and infrastructures to the urban poor in return of incentives given to them by the government as such actions cannot be based on charity when profit maximization is the basis for city development (Mohanty and Mishra 2016).
- Lastly what seemed pertinent as a recommendation by this research is the idea of a "creative city making" as advocated by Landry. It stresses on how planning should not only consider the hardware of the city but also the software of it that includes giving importance to social inclusion, citizen participation and involving those who will be actually affected by the planning process (Landry 2016)

Therefore under the SCM, urban planning should be such that it can foster a kind of land management and infrastructural provision accessible to all its urban population. Harnessing the potential of the city space as an engine of economic growth should also benefit the most vulnerable sections in urban society.

5.3.2 Financing

Increased urbanization calls for heavy investment in urban infrastructures in order to meet the enhanced needs of the urban population. Such investments have not taken place at the requisite level both under JNNURM and SCM. Although the SCM provides for a detailed guideline as to financing this ambitious urban development programme by virtue of central funding and resource generation through modern private market-based measures yet it cannot be denied that generation of resources for urban development has many challenges to overcome. The ones that have been the findings of this research in this regard include the insufficiency of fiscal devolution to local government bodies and incapacity of municipalities in generating revenues- both tax based and non-tax based.

This research acknowledges that fiscal devolution to local bodies has not taken place sufficiently. In contrast to constitutional specificities by virtue of the 74th CAA, most of the states have denied adequate financial autonomy to their local governments. State finance commissions which are supposed to lay down principles for the states to be followed in devolving their revenues to municipalities, determine the sources of revenue, provide these grants-in-aid and take up measures to improve their financial conditions have not been formed regularly. Also, their recommendations have been neglected by states.

Besides, the state government's authority looms large over municipal government's power to raise revenues by virtue of taxation, charges, and borrowing. They set the tax rates for the municipalities and also take charge in approving PPPs and deciding on grants in aids. Devoiding the local bodies of their financial autonomy does more harm than good in enabling effective urban development as the local bodies are constitutionally vested with the power to take charge of urban development. In such a context, infrastructural development in keeping up pace with increased urbanization remains compromised.

Despite these issues, the municipal bodies have other means to raise their own resources. One such important source of tax-based revenue generation for municipal bodies is the property tax. This particular tax has enough potential to contribute generously to the revenues required by the municipalities to fund the urban infrastructural development as substantiated by statistical data. However, the municipalities could not harness its potentiality to the fullest. This was

accompanied by many reasons- "poor coverage of property tax, inefficient collection, wide-ranging exemptions, lack of revision of tax bases to check current property status, poor administration of property tax" enhanced by lack of information as to the existence of land and properties and their transfer on the part of the municipal bodies and the lack of registry of the same with ambiguities existing in determining "ownership and tenancy rights" and the lack of "proper valuation and updating of property tax according to the market rates". With such lacunae prevailing in the property tax regime in India, generation of revenue from this to sustain infrastructure development under SCM seems to be a major challenge.

Besides tax-based revenue, user charges can be a good source of non-tax based revenue generation under urban renewal programmes like SCM. However, it remains highly under exploited in India. The current status of user charges in the cities is too less to cover the funding of infrastructural development. Charges for using services of water supply, sewerage, solid waste management in the form of tariffs remain very low and unchanged. Again municipal bodies lack autonomy in fixing and charging such tariff rates with the state government playing a dominant role in this respect.

Coverage of user charges remains low along with the poor collection. Again interestingly specialized and parastatal bodies which provide public services and exercise functions like local bodies but minus public accountability take up the development programmes and thus the development charges go to them and not to elected municipal bodies. Thus with respect to tax based and non tax based revenue generation, the municipalities are not in an advantageous position. Does this raise apprehension as to how the enormous projects that have been conceived under the SCM can be financed?

The research unearths recommendations from the literature that could help solve this problem-

- The Finance Commission reports-12th,13th and 14th claim how the capacity of state finance commissions should be strengthened and recommendations of these bodies should be given effect to a similar manner as Central Finance Commission recommendations to the Union government.
- Drawing on some national and international best practices, Mohanty and Mishra (2016) came out with guidelines for realizing the revenue productivity of property tax which

includes a proper framework for property tax for better understanding and implementation, setting up of laws and tribunals to settle tax disputes, expanding property tax base and using e-tools for tracking properties and updating and collecting property tax

- The Fourteenth Finance Commission reports that the tax base needs to be revised according to the inflation, user charges should be reviewed periodically and be so rationalized that these are linked with quality service delivery.

Therefore,another major finding of this research has been that financial inadequacy in urban infrastructural development will be a major challenge in the implementation of the SCM. Although there are ambitious plans for providing ICT mediated service delivery under SCM yet infrastructures to this end cannot be developed if finances are not sufficient. As such, there is a pressing need to financially authorize the local bodies and the creation of measures for revenue generation for sustaining urban development.

5.3.3 Governance

This research has also found that there exist major discrepancies in the governance system in India working to the disadvantage of local governmental bodies' capacity to manage urban development in the most effective manner.

There are certain themes that come up under this discussion of weak governance that shows some serious challenge to the success of SCM. These include inadequate decentralization of power to urban local governments reducing their capability towards effective public service delivery, increased faith in private sector and parastatal bodies in urban planning and governance leading to entrepreneurial governance bypassing elected bodies, insufficient citizen participation and gentrification of such participation in urban governance and last but not the least weaknesses of ICT enabled citizen engagement in urban governance.

The main reason for the local governments to fail in the aspect of public service delivery is the violation of the principle of democratic decentralization by state governments. As a result, the state does not devolve enough power and finances to the local bodies making them crippled in providing public services in the most effective manner. Adding to this, the local bodies are

poorly equipped in the human resource front. Therefore, the local governments which lack enough authority to act independently of state government are financially unsustainable and are not skilled to deliver their functions.

As a corollary to this problem, an observation can be made that instead of building capacities of local governments, private and professional players are brought in the domain of governance. Decision making on urban development and its implementation become the domain of managerial and technical elites who are assumed to hold more efficiency in this respect. The problem with this system is that it leads to an "entrepreneurial governance" system in a democratic system. It is problematic because these bodies, being only nominated and not elected by the citizens, now take decisions about the latter which most naturally are guided by the entrepreneurial mindset of global capital formation through urban development projects and not so much by the welfare of the people.

Reiterating how a system of network governance existed under JNNURM where international financial institutions like World Bank, ADB, civil society and business groups like Bangalore Agenda Task Force (BATF) and Bombay First along with a large number of parastatals and think-tanks remained central to decision making in urban renewal. Also, the SPVs under SCM who can act in the capacity of ULBs being delegated with their power governs the process of SCM implementation. This reinforces entrepreneurial governance. Bypassing the authority of elected representatives of the people, urban development by virtue of urban renewal programmes becomes nothing but fulfilment of neoliberal ambitions at the hands of private players who seemingly remain oblivious to the main aim of urban development which is to promote the welfare of the urban population.

The city is now managed by nominated and private players. There is hardly any attempt at upgrading the skill or authority of elected local bodies. Along with this, there remains ambiguity as to who should be in charge of the city. As recognized by the literature that democratic, accountable and transparent urban governance can be best served with the power of the executive head of the city being vested in an elected Mayor. It is interesting to find out that the position of the Mayor in most of the cities in India is that of only a ceremonial head.

Although the SCM emphasizes robust citizen participation in the process of urban development, upholding principles of good governance yet a major challenge to this can be posed by the phenomenon of the gentrification of participation. Under the elaborate monitoring system of SCM, attention has been given to how citizens groups like RWAs are brought in the process.

However, these bodies which are composed of urban middle and high-class sections through participation in city development plans most obviously serve the interest of these sections having very explicit implications for exclusionary development. This brings in the risk of facilitating gentrification of participation. Although slum associations are included under the monitoring agenda of the mission, apprehension lies in their actual involvement in the process of urban governance considering how this section has been kept out of the ambitious world-class city making.

This research drawing upon two important studies has found that citizen participation in smart city development through digitally mediated platforms promoting the norms of e-governance can be a challenging activity. This is because increased participation depends on accessibility and affordability of the internet to the people which seems to be not on the brighter side. Although digital penetration is increasing and e-literacy is ensured, digital participation ultimately relies largely on the civic intimacy between the citizens and the government at the appropriate level.

Participation remains low because digitally mediated portals are managed by the central government and nominated bodies like the SPVs and not by the local government bodies. This harms civic intimacy between citizens and local governments.

The research provides recommendations from the literature that could help fix the discrepancies in the urban governance system -

- The executive power of the city must rest on an elected entity vested with adequate authority to the end of effective public service delivery and transparent urban development being accountable to the local population and a not higher tier of government.
- There is a necessity to provide locally based platforms for enabling more citizen participation.

- Democratic decentralization should be taken seriously enough and skill enhancement of the urban local bodies should take place instead of bypassing them and keeping more faith in private players.

In an attempt to analyse the challenges that the SCM would face in its implementation, this research has found that besides the lacuna existing in the IT sector, the SCM faces major public policy challenges with respect to three aspects of planning, financing, and governing urban development. These challenges, if neglected, can lead to inefficient handling of the problems posed by urbanization. This study wants to suggest the governance model of Neo Weberian State (NWS) in place of New public Management (NPM) strategies as they fail to deliver satisfactory results in urban development. Drawing upon the understanding of the concept of NWS, this study has attempted to apply its feasibility with regard to SCM functioning.

As one of its findings, it can be stated that in the process of facilitating urban development, the administrative system should be guided by principles that suit its context. Relying solely on market-based principles in solving urban problems has not been the best way to go about urban development in India. Although market-based principles may be resorted to in fostering massive urban renewal programmes yet the prominent role of the state and specifically the urban local government, which is endowed with the task of urban development must be brought in. This will ensure a development that will be characterized by accountability, transparency and citizen participation upholding the principles of democracy and inclusion. NWS may not be the undisputable answer to the problems of urban development in India. Nonetheless, the application of this may be considered a viable option given the inadequacies of NPM style functioning in a resource crippled and heterogeneous society like India.

5.4 Recommendations

The main aim of urban development is to provide for a good quality living to all its urban population coupled with furthering economic advantages of the city. The first aim should not be neglected at the behest of the latter as this goes against a democratic development. Urban planning and governance have followed neo-liberal principles that do not suit well to the Indian

urban problem. Neglecting local bodies in fiscal and power decentralization causes harm to democratic urban development

The major recommendations that this research comes up with are-

- Lessons are to be learned from the unsatisfactory performance of early urban renewal programmes like JNNURM. The challenges faced in earlier programmes should be taken into consideration and improved upon so that the latter development programmes are free from these.
- The 74th CAA must be followed by states and enough power along with financial sustainability must be granted to local bodies in fostering urban development.
- Instead of relying on parastatals, the skill and capacity of ULBs must be enhanced so that decentralization takes place in the true sense. This is a necessary condition for the ULBs to be equipped enough to deal with the issue of urbanization.
- The approach towards urban development may apply more NWS principles than the principles of NPM. The state should take an active role in fostering urban development instead of relying solely on private actors.

5.5 Limitations and Further Scope

This study has some limitations which will be elaborated. This is mainly exploratory research relying on secondary data. Field level research in specific smart cities can give an in-depth understanding of the challenges that these face in implementation. This study has taken a general and holistic approach towards the overall challenges that the mission would face considering three variables. There are many other issues that can be considered while examining the challenges that the SCM would face in its implementation along the lines of gender, environment, and social stratification. Inputs from international cases of successful smart cities can be applied to the Indian context depending on cultural and contextual feasibility. This study tries to apply the administrative principles of NWS in exploring how SCM can overcome some

of its challenges. There are other approaches that might be considered in further studies like the new public services or evidence-based studies.

Notes

[i] A Neo-Liberal economy promotes a free and open market where lies no state control of economic activities. Globalization referring to the interconnectedness of the economic activities of the world embraces a neo liberal economic structure. The forces of Neoliberalism and Globalization facilitate a kind of corporate economy which refers to how corporations and businesses control the marketplace and therefore economic activities.

[ii] McKinsey Global Institute (MGI) was set up in 1990s in order to deal with the global economy and its evolution. It attempts to understand how macroeconomic forces can affect business strategy and public policy. In 2018 Global Go too Think Tank Index Report published in 2019 by the University of Pennsylvania, the MGI was ranked first as a private sector think tank see https://www.mckinsey.com/mgi/overview)

[iii] The Global Smart City Council is a network of leading companies that receive guidance from top universities, laboratories and standards bodies so that this can in turn guide creation of smart cities worldwide. See https://smartcitiescouncil.com/article/about-us-global

[iv] The Indian Government comes up with a national economic planning agenda every five years. Until now it has come up with twelve such plans with the Twelfth five year plan being the latest one for the time period of 2012-2017.

[v] CSTEP is a non- profit research organization which aims at enriching policy making by applying approaches of science and technology. Urban development is one such area in which this organization conducts research. See https://www.cstep.in/#/aboutus

[vi] ISO is an international organization that fixes standards to be followed worldwide. International standardization is done for "products, services and systems, to ensure quality, safety and efficiency" so that they are" instrumental in facilitating **international trade"** see https://www.iso.org/about-us.html

[vii] Web-based technologies are technologies and network applications of internet which ensures connectivity between individuals and organizations. See https://www.igi-global.com/dictionary/web-based-technologies/32430

[viii] LAN connects many computers with an Ethernet cable that run on internet connection at high speed. The function of MAN and WAN is the same, which is to connect computers with a network. The difference between LAN, MAN and WAN is based on the size of the geographical area in which they provide the internet connection. While LAN is suitable for a campus or office space, MAN is used for a larger geographical area. WAN is used to connect networks across the world. See (https://quantusitsolutions.com/lan-wan-man-what-are-they-and-how-do-they-compare/)

[ix] IOT is "a system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with unique identifiers (UIDs) and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction" (IoT Agenda). See https://internetofthingsagenda.techtarget.com/definition/Internet-of-Things-IoT

[x] The Indian federal system provides for three tier of government- one at the centre, the next at the state level and the last is the lowest level of administrative power that is vested in local government in urban and rural areas. Here the concern lies with urban areas where the administration is managed by municipal government bodies.

[xi] Parastatal bodies are set up by acts of parliaments and hence are not elected bodies. However these play important role in the economic, social and cultural activities of the nation. These bodies take important decisions with regard to such activities. See https://prb.govmu.org/prb2016/vol22/pint.pdf

[xii] E governance refers to the application of Information and Communications Technology in providing government services

[xiii] Low-income groups accommodate those households in which the monthly income is between Rs 5001-Rs 10,000. This amount is fixed and updated by the Ministry of Housing and Urban Poverty Alleviation in India.

[xiv] The HPEC has been set up by the Ministry of Urban Development in 2008 chaired by Isher Judge Ahluwalia in order to estimate the investment needs in urban areas.

[xv] The seventh schedule in the Constitution of India specifies three lists- union list, state list and concurrent list that divides the subjects of administrative control between the Union and the states.

[xvi] The second Administrative Reforms Commission was set up in 2005 and was chaired by Veerappa Moilly. Its purpose was to evaluate and revamp the public administration system in the country.

Bibliography

Alawadhi1, Suha, Armando Aldama-Nalda2, Hafedh Chourabi3, J. Ramon Gil-Garcia2, Sofia Leung1, Sehl Mellouli3, Taewoo Nam4, Theresa A. Pardo, Hans J Scholl and Shawn Walken (2012): "*Building Understanding of Smart City initiatives*", *LNCS7443*, pp. 40–53, 2012.

Alkandari, Abdulrahman, Meeshal Alnasheet and Imad F.T Alshekhly (2012): "Smart Cities: Survey", *Journal of Advanced Computer Science and Technology Research*, Vol.2 No.2, pp. 79-90.

Anttiroiko, Ari-Veikko, Pekka Valkama and Stephen J. Bailey (2014): "Smart cities in the new service economy: building platforms for smart services", *AI & Soc*, Vol. 29, pp 323-334.

Balkrishna, Chitra (2012): "Enabling Technologies for Smart City Services and applications", *Sixth International Conference on Next Generation Mobile Applications, Services and Technologies*, pp. 223-227.

Banerjee-Guha, Swapna (2009): "Neoliberalising the 'Urban': New Geographies of Power and Injustice in Indian Cities", *Economic and Political Weekly*, Vol. 44, No. 22, pp. 95-107.

Batra, Lalit (2009): "A Review of Urbanisation and Urban Policy in Post Independent India", Working Paper Series, Centre for the Study of Law and Governance, Jawaharlal Nehru University, New Delhi, pp 1-51.

Bhattacharya, Shrimoyee, Sujaya Rathi, Sonali Anusree Patro and Niepukhrie Tepa (2015): " Reconceptualising Smart Cities: A Reference Framework for India", Center for Study of Science, Technology and Policy (CSTEP), pp 1-54.

BRICS (2015): "Human Smart Cities, Addressing the Urban Transition in BRICS", 3rd BRICS Urbanisation Forum, pp 17-39.

Bhan, Gautam (2013): "Planned Illegalities Housing and the 'Failure' of Planning in Delhi: 1947-2010", *Economic & Political Weekly*, Vol. xlviiI, No. 24, pp. 58-70.

Bhan, Gautam (2013): "The Real Life of Urban Fantasies", *International Institute for Environment and Development (IIED)* Vol 26, No. 1, pp 232–235.

Bhubaneshwar Puri Transport Services (2017): " Bhubaneshwar E Mobility Plan Expression of interest for availing grant under FAME India scheme", http://smartcities.gov.in/upload/smart_solution/5a277bcb24008BHUBANESWAR%20E-MOBILITY%20PLAN.pdf

Burte, Himanshu (2014): "The Smart City Card", *Economic and Political weekly*, Vol. xlIX 22 No. 46, pp 22-25.

Castells, Manuel (2010): *The rise of network society,* United Kingdom: Blackwell Publishing.

Chourabi, Hafedh, Taewoo Nam, Shawn Walker, J. Ramon Gil-Garcia, Sehl Mellouli, Karine Nahon, Theresa A. Pardo and Hans Jochen Scholl (2012): "Understanding Smart Cities: An Integrative Framework, IEEE Computer Society", 45th Hawaii International Conference on System Sciences, *IEEE Computer Society*, pp 2289-2297.

Datta, A. (2015) "The Smart Entrepreneurial City: Dholera and a 100 other utopias in India in C. McFarlane, S. Marvin, & A. Luque-Ayala Ed *Smart Urbanism: Utopian Vision or False dawn?* London: Routledge.

Dohler, Mischa, Ignasi Vilajosana, Xavi Vilajosana and Jordi LLosa (2011): "Smart Cities: An ActionPlan" *Proceedings of Barcelona Smart Cities Congress*, pp 1-6.

Drechsler, Wolfgang (2005): " The Rise and Demise of the New Public Management", www.paecon.net/PAEReview/issue33/Drechsler33.htm

Drechsler, Wolfgang and Rainer Kattel (2008): "Towards the Neo-Weberian State? Perhaps, but Certainly Adieu, NPM!" *The NISPAcee Journal of Public Administration and Policy*, Vol. 1, No. 2, pp. 95-100

Dunn, William N and David Y Miller (2007): "A Critique of the New Public Management and the Neo-Weberian State: Advancing a Critical Theory of Administrative Reform", *Public Organiz Rev*, pp 345-358.

Economic and Social Council, United Nations (2016): "Smart Cities and Infrastructure", Commission on Science and Technology for Development Nineteenth session, pp. 1-17.

Farthing, Stuart (2004): "New Strategic Urban Planning", *Ábaco, 2 Epoca*, No. 40/41, pp. 54-70.

Fourteenth Finance Commission Report (2013), https://www.prsindia.org/sites/default/files/bill_files/14th_FC_Report.pdf

Griffiths, Mary (2016): 'Imagine if our cities talked to us': Questions about the making of 'responsive' places and urban publics in Mary Griffiths and Kim Barbour edited *Making Publics, Making Places* (University of Adelaide Press) pp 27-45, http://www.jstor.org/stable/10.20851/j.ctt1t304qd.8

Gruening, Gernod (2001): "Origin and theoretical basis of New Public Management", *International Public Management Journal*, Vol. 4, pp 1–25.

Heeks, Richard (2015): "Indian IT/Software Sector Statistics: 1980-2015 Time Series Data", *ICTs for Development,* https://ict4dblog.wordpress.com/2015/04/28/indian-itsoftware-sector-statistics-1980-2015-time-series-data/

Henderson, Jeffrey, David Hulme, Hossein Jalilian and Richard Phillips (2007): "Bureaucratic Effects: 'Weberian' State Agencies and Poverty", *Sociology*, Vol. 41, No. 3, pp. 515-532.

Hoelscher, Kristian (2016): "The evolution of the smart cities agenda in India", *International Area Studies Review,* Vol. 19, No. 1, pp 28–44.

Hoelscher, Kristian and Rumi Aijaz (2016): "Challenges and opportunities in an urbanising India", *International Area Studies Review,* Vol. 19, No. 1, pp 3–11

Hood, Christopher (1995): "The New Public Management in the 1980s: Variations on a Theme", *Accounting, Organizations and Society,* Vol. 20, No. U3, pp. 93-109.

ICT Development Index 2017, https://www.itu.int/net4/ITU-D/idi/2017/index.html

Idicula, Mathew (2016): "Should mayors be directly elected?", Urban Governance Columns, The Hindu, August 23.

ISO/IES JTC-1 (2014): "Smart Cities", Preliminary Report, pp. 1-11.

Jadhav, Radheshyam (2019): "What's Smart about Smart Cities", *The Hindu Business Line*, https://www.thehindubusinessline.com/specials/india-file/whats-smart-about-smart-cities/article26367835.ece

Jessop, Bob (2002): "Liberalism, Neoliberalism, and Urban Governance: A State-Theoretical Perspective", *Wiley Online Library*, pp. 452-470.

Kaboolian, Linda (1998): "The New Public Management: Challenging the Boundaries of the Management vs. .Administration Debate", *Public Administration Review*, Vol. 58, No. 3, pp. 189-193.

Kamath, Lalitha and Yacoub Zachariah (2015): "Impact of JNNURM and UIDSSMT/ IHSDP Programmes on Infrastructure and Governance Outcomes in Cities/Towns in India A Review of the State of Knowledge", TISS Working Paper, No 7, pp. 1-25.

Kelly, Rita Mae (1998): "An Inclusive Democratic Polity, Representative Bureaucracies, and the New Public Management", *Public Administration Review*, Vol. 58, No. 3, pp 201-208.

Kennedy, Loraine and Marie-Hélène Zérah (2008): "The Shift to City-Centric Growth Strategies: Perspectives from Hyderabad and Mumbai", *Economic and Political Weekly*, Vol. 43, No. 39, pp. 110-117.

Khan, Zaheer and Saad Liaquat Kiani (2012): "A Cloud-based Architecture for Citizen Services in Smart Cities", IEEE/ACM Fifth International Conference on Utility and Cloud Computing, *IEEE Computer Society*, pp 315-320

Khosla, Romi (2015): "The New Metropolis: Nehru and the Aftermath", *Social Scientist*, Vol. 43, No. ¾, March-April, pp. 11-32, http://www.jstor.org/stable/24372933

Kundu, Debolina (2014): "Urban Development Programmes in India: A Critique of JnNURM", *Social Change*, Vol. 44, No. 4, pp 615-632.

Kumar T.N. Vinod and Bharat Dahiya (2017): "Smart Economy in Smart Cities" in T. N. Vinod Kumar Ed *Smart Economy in Smart Cities*, Singapore: Springer, pp 3-78.

Kundu, Debolina and Sudhir Krishna (2017): "Introducing Urban Entrepreneurialism in India: An Analysis of Programmatic Interventions" in Kanekanti Chandrashekar Smitha Ed *Entrepreneurial Urbanism in India: The Politics of Spatial Restructuring and Local Contestation,* Singapore: Springer, pp 35-56.

Landry, Charles (2016): "Afterward: The Changing Face of Urban Planning: Towards Collaborative and Creative Cities" in Grazia Concillo and Francesca Rizzo Ed *Human Smart Cities, Rethinking the Interplay between Design and Planning,* Switzerland: Springer International Publishing.

Linders, Dennis (2016): "Smart Cities", World Development Report, *Sector Focus 4*, pp. 240-242.

Lynn Jr, Lawrence E (2008): "What Is a Neo-Weberian State? Reflections on a Concept and its Implications", *The NISPAcee Journal of Public Administration and Policy*, Vol. 1, No. 2, pp. 10-17.

Mahadevia, Darshini (2011): "Branded and Renewed? Policies, Politics and Processes of Urban Development in the Reform Era", *Economic and Political Weekly,* Vol. 46, No. 31, pp. 56-64.

Management Study Guide, Desk Research -Methodology and Techniques, https://www.managementstudyguide.com/desk-research.htm

Manning, Nick (2001): "The legacy of the New Public Management in developing countries", *International Review of Administrative Sciences,* Vol. 67, No. 2, pp 297-312.

Manor, James (2010): " Local Governance", in Nirja Gopal Jayal and Pratap Bhanu Mehta Ed *The Oxford Companion to Politics in India,* New Delhi: Oxford University Press

Mathur, Om Prakash, Debdulal Thakur and Nilesh Rajadhyaksha (2009): "Urban property Tax Potential in India", National Institute of Public Finance and Policy, pp. 1-93.

Meijer, Albert and Pedro Rodrı´guez Bolı´var (2016): "Governing the smart city: a review Of the literature on smart urban", *International Review of Administrative Sciences*, Vol. 82, No. 2, pp 392-408.

Ministry of Housing and Urban Affairs, Government of India, http://mohua.gov.in/cms/jawaharlal-nehru-national-urban-renewal-mission.php

Ministry of Urban Development (2015): "Smart Cities Mission Statements and Guidelines" https://smartnet.niua.org/content/2dae72ca-e25b-4575-8302-93e8f93b6bf6

Mohanty, Prasanna K (2014): *Cities and Public Policy*, New Delhi: Sage Publications

Mohanty, Prasanna Kumar and Alok Kumar Mishra (2016): "Urbanization and Land Challenges for Smart Cities in India", HSMI and HUDCO Chair-UOH Collaborative Research.

Nam, Taewoo and Theresa A. Pardo (2011): "Conceptualizing Smart City with Dimensions of Technology, People, and Institutions", *the Proceedings of the 12th Annual International Conference on Digital Government Research*, pp 282-291.

Nandi, Sangeeta and Shama Gamkhar (2013): "Urban challenges in India: A review of recent policy measures", *Habitat International*, Vol. 39, pp 55-61.

National Institute of Public Finance and Policy (2011): "Municipal Finance Matters", India Municipal Finance Report (IMFR), https://www.nipfp.org.in/media/medialibrary/2013/08/IMFR_FINAL_REPORT.pdf

National Institute of Urban Affairs (2015): "Exploratory Research on Smart Cities, Theory, Policy and Practice", http://cidco-smartcity.niua.org/wp-content/uploads/2015/10/Exploratory_Research_on_Smart_Cities.pdf

NDTV (2018): "India Evicting 30 People An Hour As Cities Modernise: Activists", https://www.ndtv.com/india-news/india-evicting-30-people-an-hour-as-cities-modernise-activists-1816496

Neirotti, Paolo, Alberto De Marco, Anna Corinna Cagliano, Giulio Mangano and Francesvo Scorranto (2014): "Current trends in Smart City initiatives: Some stylised facts", *Cities*, Vol 38, pp 25-36

Nijman, Jan (2012): "India in the Urban Revolution", *Indian Anthropologist*, Vol. 42, No. 2, July- December, pp. 1-17, http://www.jstor.org/stable/41922303

Odendaal, Nancy (2003): "Information and communication technology and local governance: understanding the difference between cities in developed and emerging economies", *Computers, Environment and Urban Systems*, Vol. 27, pp. 585–607.

Ojo, Adegboyega, Edward Curry and Tomasz Janowski (2014): "Designing Next Generation Smart City Initiatives- Harnessing Findings and Lesssons from a Study of Ten Smart City Programs", *Proceedings of the European Conference on Information Systems* (ECIS), pp 1-14.

Pandey, K.K (2012): "Administration of Urban Development and Urban Service Delivery", Theme Paper for the 56th Members' *Annual Conference 2012*, Indian Institute of Public Administration**.**

Planning Commission, Five Year Plans, http://planningcommission.nic.in/plans/planrel/fiveyr/welcome.html

Poggi, Gianfranco (2017): "Reflections on the Makings of Neo-Weberian Policy", *Books and Ideas*, http://www.booksandideas.net/Reflections-on-the-Makings-of-Neo-Weberian-Policy.html

Poister, Theodore H and Streib, Gregory (2005): "Elements of Strategic Planning and Management in Municipal Government: Status after Two Decades", *Public Administration Review*, Vol. 65, No. 1, pp 45-56.

Praharaj, Sarbeswar, Jung Hoon Han and Scott Hawken (2017): "Innovative civic engagement and digital urban infrastructure: Lessons from 100 Smart Cities Mission in India", *Procedia Engineering*, Vol. 18, pp. 1423 – 1432.

Pratap, Kumar V. "Financing of Smart Cities", Kumar V Pratap, Economic Advisor, Ministry of Urban Development, government of India, pp. 1-32.

Ramachandran, T (2013): "India 121st in global information and communication technology rankings", *The Hindu*, October 8, https://www.thehindu.com/opinion/blogs/blog-datadelve/article5214382.ece

Randma-Liiv, Tiina (2008): "New Public Management Versus the Neo-Weberian State in Central And Eastern Europe", *The NISPAcee Journal of Public Administration and Policy*, Vol. 1, No. 2, pp. 69-82.

Rao, M Govinda (2013): “Property Tax System in India: Problems and Prospects of Reform”, National Institute of Public Finance and Policy, New Delhi Working Paper No. 2013-114, pp. 1-17.

Rao M Govind and Richard M Bird (2010): “Urban Governance and Finance in India”, National Institute of Public Finance and Policy New Delhi, pp 1-40

Report of AP PHED Team (2016): “Soil-Bio-Technology (SBT) based Sewage Treatment Plants”, http://smartcities.gov.in/upload/smart_solution/593f9500c0719SharingofPractices.pdf

Roy, Ananya (2009): “Why India Cannot Plan Its Cities: Informality, Insurgence and the Idiom of Urbanization”, *Planning Theory*, Vol. 8, No. 1, pp. 76-87.

Sadoway, David, Govind Gopakumar, Vinay Baindur and Madhav G Badami (2018): “JNNURM as a Window on Urban Governance Its Institutional Footprint, Antecedents, and Legacy”, *Economic and Political Weekly*, Vol L iii, No 2, pp. 71-79.

Sagar, Kundan and Abhinash Mohanty Ing (2016): “ Bihar Shariff as Smart City: Metamorphosis Plan and its Challenges to Sustainable Development”, *International Conference on Climate Change Mitigation and Technologies for Adaptation*, Synod College, Vol. 1, https://www.researchgate.net/publication/304101203_Bihar_Sharif_as_smart_city_Metamorphosis_plan_and_its_challenges_to_sustainable_development

Sagar Santosh, Kondekar (2017): “A Case Study of Socio Economic Impact of Jawaharlal Nehru National Urban Renewal Mission Jnnurm on Nanded City 2005-2012”, Unpublished Thesis, http://hdl.handle.net/10603/188847

Schaffers, Hans, Nicos Komninos, Marc Pallot, Brigitte Trousse, Michael Nilsson, and Alvaro Oliveira: “Smart Cities and the Future Internet: Towards Cooperation Frameworks for Open Innovation”, pp 431-445.

Shaw, Annapurna (1996): “Urban Policy in Post-Independent India: An Appraisal”, *Economic and Political Weekly*, Vol. 31, No. 4, pp. 224-228.

Singh, Nirvikar (2003): “Information Technology as an Engine of Broad-Based Growth in India” in Frank-Jürgen Richter and Parthasarathi Banerjee Ed *The Knowledge Economy in India*, New York: Palgrave Macmillan, pp. 24-57.

Sivaramakrishnan, K.C (2014): “ Municipal and Metropolitan governance: are they relevant to the urban poor?”, Paper presented at the Forum on Urban Infrastructure and Public Service Delivery for the Urban Poor, *Regional Asia*, pp. 1-24.

Smitha, K.C (2017): “Entrepreneurial Urbanism in India: A Framework” in Kanekanti Chandrashekar Smitha Ed *Entrepreneurial Urbanism in India: The Politics of Spatial Restructuring and Local Contestation*, Singapore: Springer, pp. 1-34.

Statista Research Department (2018): “ Internet usage in India- Statistics & Facts”, https://statista.com/topics/2157/internet-usage-in-india/

Twelfth Five Year Plan 2012-2017 (2013): “Faster, More Inclusive and Sustainable Growth”, Planning Commission , Government of India, New Delhi: SAGE Publications

United Nations Commission on Science and Technology for Development (2016): “Issues Paper On Smart Cities and Infrastructure”, Inter-sessional Panel 2015-2016, Budapest, Hungary, pp. 11-13

United Nations (2018): “World Urbanization Prospects: The 2018 Revision”, Economic and Social Affairs, https://esa.un.org/unpd/wup/Publications/Files/WUP2018-KeyFacts.pdf

Zafarullah, Habib and Abu Elias Sarker (2016): “Public Management Reforms in Developing Countries” in Nizam Ahmed Ed *Public Policy and Governance in Bangladesh: Forty Years ofExperience*,https://books.google.co.in/books?id=vDKTDAAAQBAJ&pg=PT23&lpg=PT23&dq=zafarullah+and+sarker

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