

**Urban Local Governance and Public Policy: A  
Comparative Study of Moscow and New Delhi,  
1993-2016**

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## DECLARATION

I declare that the thesis entitled “Urban Local Governance and Public Policy: A Comparative Study of Moscow and New Delhi, 1993 - 2016”, submitted by me in the fulfillment of the requirements for the award of the degree of Doctor of Philosophy of Jawaharlal Nehru University is my own work. The thesis has not been submitted for any other degree of this University or any other university.

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## CERTIFICATE

We recommend that this thesis be placed before the examiners for evaluation.

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**Dedicated to my Goddess on Earth**

**SARAMANI PARIDA**

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Date-

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## **List of Abbreviations**

CCS	Centre for Civil Society
CPCC	Central Pollution Control Committee
DPCC-	Delhi Pollution Control Committee
DSEWPC	Department of Sustainability, Environment, Water, Population and Communities
EC	European Commission
EU	European Union
FSGS	Federal State Statistics Service
GPM	Global Parliament of Mayors
HDI	Human Development Index
HT	Hindustan Times
IBE	International Bureau of Education
ISWA	International Solid Waste Association
LN	League of Nations
MHA	Ministry of Home Affairs
MHRD	Ministry of Human Resource and Development
MoEFCC	Ministry of Environment, Forest and Climate Change
MPI	Multidimensional Poverty Index
NCD	Non-Communicable Disease
NCRPB	National Capital Region Planning Board
OECD	Organisation for Economic Co-operation and Development
PTI	Press trust of India
RLSG	Rural Local Self-Government
RT	Russia Today
SCI	Supreme Court of India
SDG	Sustainable Development Goal
UCLG	United Cities and Local Governments
ULB	Urban Local Body
ULG	Urban Local Government

ULG	Urban Local Government
ULSG	Urban Local Self-Government
UN	United Nations
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCAP-	United Nations Economic and Social Commission for Asia and the Pacific
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organization
WB	World Bank
WCED	World Commission on Environment and Development
WHO	World Health Organization

# Introduction

The earth is not flat, it is urban.

- World Cities Report 2016

For quite a while, 'Urban Governance' is at the heart of the global academic discourse. Over the years, it has gained ample momentum and broad attention. Everyone has been talking about 'Future of Cities' and about 'Cities of Future'. As many as more than 55% of 7 billion world population live in urban areas; more than 700 cities expected to have population more than one million by 2030 (UNDESA, 2018a, 2018b, 2018c). It is evident that more people live in urban landscape rather rural areas. The growing pattern of urbanisation indicates the future world would be increasingly urban.

With increasing number of urban landscapes, the number of slums dwellers and shanty towns are also rising. The growing number of towns throw several new challenges in front of policy makers and political leaders.

As the world is witnessing the rising number of urban settlement in search of job and better future prospects, some of the new threats have been pointed out by National Geographic Channel in 2009:

1. Poverty would rise due to intensive urban growth and local governments would not able to provide services for all people.
2. Air pollution would be greater due to concentrated use of energy and it would impact severely on human health.
3. Lead levels will be elevated in urban air due to automobile exhaust.
4. Large volumes of uncollected waste would create numerous health hazards.
5. Environmental hazards such as flash flooding would happen frequently due to rapid urban development.
6. There would be significant loss to urban vegetation due to pollution and physical barriers (National Geographic, 2009).

## **1.1 Environmental Concerns and Waste Problems in Urban Landscape**

To fulfil human ambitions, desires, needs and human actions, one cannot disregard the environmental concern associated to it. Environment concerns have acquired the central stage in world politics and rightly conveyed in “Millennium Development Goals (MDGs)” and “Sustainable Development Goals (SDGs)” of UN. The earlier notion of environmental degradation as a “problem of the rich nations and a side effect of industrial wealth” became the “survival issue for developing nations” (Drexhage & Murphy, 2010, 13). With the inclusion of environmental issues in MDGs and SDGs, the world has clearly accepted environmental problem as a serious challenge, and ‘Sustainable Development’ as a desired path for survival.

The debate over the issues related to ‘Environment’ and ‘Development’ are governing international relation now a days. Drexhage and Murphy do not see ‘Environment’ and ‘Development’ with two different lenses. They consider, ‘Environment’ is “where we all live”; and ‘Development’ for them is “what we all do in attempting to improve our lot within that abode” (p. 13). Unsustainable growth and industrialization have profound effects upon the ability of all the people, and endanger the sustainability of human progress for generations to come. Highlighting the seriousness of unchecked human action and environmental concerns, they show the inability of humanity to fit its activities into sustainable pattern is changing planetary systems and the consequences of these changes are accompanied by life-threatening hazards. Emphasizing this as new reality, they assert that there is no escape from these looming concerns (pp. 13-18). Hence, environmental problems must be recognized and managed for survival of future generation.

Environmental degradation is the most visible and enduring problem of world. Most of the towns are facing the problems caused by the depletion of environment. Environmental degradation has a multidimensional nature of which mismanagement of waste is a severe concern. Urban waste management is one of the gravest areas of concern for not only local bodies but also for international institutions. There are several identified as well as unidentified problems arise due to waste mismanagement: pollution is rising, environmental degradation is surging to new highs.

Waste is the by-product of consumer based lifestyle and is inextricably linked to economic development. Reducing waste by reducing consumerism may result reducing economic activity. No, country wants to reduce the economic development in their respective area. Thus, irrespective of the prevalence of the slogan to minimise consumption of goods and services, no countries take seriously the less consumption practice.

People are in the state of disrepair due to irritating effects of waste. The urban situation is extremely chaotic due to the waste problem. One of the examples of problem caused by waste mismanagement at local level was evident when thousands of locals of Moscow Region town of Volokolamsk rallied in the centre of Volokolamsk in a protest – often termed as ‘shut it down!’ - demanding the closure of the local Yadrovo waste-deposit site which had been leaking landfill gases and caused to suffer nearly 60 children for symptoms of poisoning, dizziness, neusia and skin rashes (RT, 2018b). The ‘slitting throat’ gesture, which considered by thousand protesters as the symbol of the approaching revolution, shows the gravity of situation arises due to waste (RT, 2018a). At the same time it stresses impact on international politics also. When Philippine President Rodrigo Duterte has moved truckloads of garbage to Canadian territory and the presidential spokesperson speaks stern message that “If Canada will not accept their trash, we will leave the same within its territorial waters or 12 nautical miles out to sea from the baseline of any of their country’s shores”(Duterte moves... 2019). It shows the persistent concerns in international relations which arises due to waste. It stresses the fact how waste is a factor which shapes Glocal (global local) politics.

## **1.2 The Approach Towards the Solution**

SDGs has precisely highlighted the need of developing ‘sustainable cities and communities’ with availability of ‘good health and well-being’, ‘Quality education’, ‘Gender equality’, ‘Clean water and sanitation’, ‘Affordable and clean energy’, ‘Responsible consumption and production’ along with the eliminating ‘poverty’ and care for climate including water and land based life forms (UN, 2015).

Local governance is seen as the paramount solution of those alarming problems, because most of those problems start with local level and thereafter escalate in to national or international problems. The idea of providing basic urban civic amenities like food, shelter, clothing, sanitation, healthcare, education etc. to the same urban people by an urban local body is understood as ‘Urban Local Governance’. So in context to urban landscape, urban local governance is the urban problem solving governance.

The distribution of power has always been a bone of contention between the State and the Society. Local government lies in between these two institutions, and hence is considered as the bridge between the State and the Society. The question of ‘balance of power’ always has the presence at the level of local government – may it be political power which includes legislative power and executive power; may it be economic power which includes collection and levy of taxes, formulation, approval and implementation of budget; may it be judicial power which includes resolve local disputes locally.

There has always been debates in world history, whether self-government is a state or social institution. Local governments are the like war zones of state and society. There were traditional antagonism between the state and societies at grass-root level. There has always been conflicts, how to distribute power, economy and judicial activity among the state and the societies. Lapteva (1996) asserts, two diametric approaches were debated on the nature of local-self-governance. The approach - which adhered to the ‘societal theory’ of local governance - considered local self-governance “as the realization of the natural right of each community to minister to its own needs and concern” (p. 319). The approach - which adhered to ‘state theory’ or ‘governmental theory’ of local governance - contended that since all institutions of power derive their power from the state, local governance as a local power must be deriving power from the state and hence must be a state institution rather social institution (p. 319).

While both the approaches try to define the nature of the LSG, one important issue related to financial decentralisation required to be dealt with seriously. It has been argued by Many authors that ‘the lack of financial decentralisation, lack of financial autonomy weaken the LSG institutions. They hold that the LSG bodies get a impoverish share of the collected tax and it paralysed the function of local self-

governance (De Silva, Galina, Golovanova, & Andreeva, 2009; Turgel, 2008; Wollmann & Gritsenko, 2010).

Urban local self-governance is need of the hour to provide equitable and justiciable environment to the people at local level. With the increasing workload and busy schedule of urban life, people depend more and more on government machinery to provide them basic civic amenities like water supply, clean environment, waste management, hospital facility, roads, transportation, street lighting, drainage, market places, records of births and deaths and other civic services. Disbursal of public service and civic utility are becoming distant dreams. To fulfil the need of growing population and to achieve 'Sustainable Development', policy makers adopt multidimensional approach. Surely, problems are local. Hence, if problems could be solved locally and democratically then problems in national arena will diminish gradually.

Outlining the solutions to the threats to urban local governance, the National Geographic Channel (2009) has emphasised to promote economic development and create jobs in order to combat poverty, to promote local community in local government, to create private-public partnerships to provide services such as waste disposal and housing, to Plant trees and increase green space in urban planning, and to reduce pollution etc. These suggestions were directly related to the urban governance and urban planning which shows the importance of these institutions and policy making.

In a different perspective, Genovese (2015) claims that major challenges, we are facing, are global in nature and hence need global solutions. For him it is impossible for national policies alone to resolve such interconnected global problems. Rio declaration on Environment and Development, which was build upon the 'Declaration of the United Nations Conference on the Human Environment', adopted at Stockholm on 16 June 1972, urges for "new levels of co-operation among States, key sectors of societies and people" and for "international agreements which respect the interests of all and protect the integrity of the global environmental and developmental system" and also recognises the nature of earth as integral and interdependent (UN, 1972). UNCED (1992) lucidly put it that we can no longer think of environment, economic and social development as isolated fields.



The thesis focuses on three objectives:

1. To re-examine the critical issues related to waste management and to formulate realistic proposals for dealing with them;
2. To propose new forms of cooperation between Delhi and Moscow on these issues that will influence policies and events, legislations in the direction of required changes; and
3. To raise the levels of understanding and commitment to action of individuals, non-governmental organizations, businesses, institutes, and governments organisations.

### **1.3 Research Problem**

As emphasized in ‘SIS Research Manual’, the research problem locate in the domain of “understanding the systems, institutions and processes”. The end of cold war has changed the objectives of area study and the notion of area in area study. Locally relevant concepts and local problems which are central to concerned regions got prominence in area study programme (in international relation) (Agarwal, 2006, 3-5).

Like the problem of most of cities, similar problems persists in both the capital cities of Russia and of Bharat. The growth of urban population and expansion of urban area requires robust urban policy; and to implement that effective urban governance is necessary. The thesis tries to comprehend the significance of urban governance in its local administration structure, and public policies in particularly related to ‘Waste Management’.

There is growing exasperation among city dwellers. The thesis attempts to unearth the factors contributing to these discontents of the city dwellers. Determinants of urban governance and public policy are expected an extensive study. Waste is polluting environment and endangering life, liberty and property of city inhabitants. So policies related to waste management is crucial part to be researched. During these analysis, how urban local governance structure is resilient to solve problems has is taken into consideration. The research endeavours to find out whether there is correlation waste and international politics.

## **1.4 Objectives of the Study**

- a) To understand the evolution of the State, the Government, and Governance.
- b) To understand 'Global Urban Governance' and 'Urban Global Governance'.
- c) To know the significance of urban local governance and public policy in 20<sup>th</sup> and 21<sup>st</sup> century.
- d) To understand role of urban local governance in this hyper-changing, inter-connected global urban world.
- e) To understand the nature of the administrative structure of Moscow and Delhi.
- f) To comprehend the policy initiation to mitigate waste problems in Moscow and Delhi.
- g) To understand how waste is a major player in international politics.

## **1.5 Research Question**

- 1) What are the significance of urban local governance and public policy in 20<sup>th</sup> and 21<sup>st</sup> century?
- 2) How multifaceted problems in Moscow and Delhi are contributing to greater delegation of power to local administrative units?
- 3) How structural aspect of urban governance is capable (to meet the growing expectation of civilians) to mitigate the waste problem in Moscow and Delhi?
- 4) How waste management instigating a serious challenge to the policy makers in Moscow and Delhi?
- 5) How public policy contributes to mitigate problems arise from waste?
- 6) How Russia and Bharat can cooperate in the fight against the problems arise due to waste?
- 7) How waste is playing a leading role in international politics?

- 8) What factors contribute growing exasperation among city dwellers in relation to urban governance?
- 9) What are the commonalities and differences between the governance of Moscow and Delhi?
- 10) How does waste polluting the environment and endangering the life, liberty and property of the city dwellers?
- 11) How pollution making the condition of city dwellers especially the poor worst?

## **1.6 Hypotheses**

Hypothesis is the proposition of interrelationship among concepts. Here all the hypotheses indicate about both Moscow and Delhi. Concepts are used as variables in the hypotheses.

- Structural aspect of urban local governance is incapable to face the growing urban challenges.
- Inadequate public policy causes waste mismanagement.

Urban governance is the dependent variable. Public policy and administrative structure are independent variables.

## **1.7 Research Methodology**

The thesis proceeds as an empirically grounded theoretical research. The proposed study employs largely comparative method. Due to multidimensional characters of the research, 'Hypothetico-deductive research method' has followed on the lines of 'partial holism' (Aya, 2006; Grunbaum, 1963; Quine, 1951; Votsis, 2014). As Quality-Quantity is a frivolous dichotomy and there is no definite either/or between them, this thesis proceeds with mixed research methodology (Creswell, 2009; Waltz, 1979). As per relevant situation in this research, both 'Qualitative Method' and 'Quantitative Methods' is being adopted.

We have to rely on logic (broader theoretical framework) to identify what has to be observed empirically, and at the same time, logic can't be applied in vacuum; we need concrete data to apply logic. So Inductive and deductive methods are complementary and applied accordingly.

Five connotations of method - methods of research inquiry, methods at the level of epistemology, methods as procedures for data collection and and methods as tools during data collection and methods of data analysis - are adopted extensively. Exploratory method used at the level of research inquiry i.e. for formulating research problem, formulation of research question and formulation of the hypothesis. This is method is suited because the researcher has little knowledge about the study and is unfamiliar with structure of research area; also because there is persistent phenomena of growing resentment among city dwellers, and of environment pollution and waste related problems which have repercussions on global politics.

At the level of epistemology, both positivist and rationalist interpretative approach is being taken into account. This thesis adopts multiple methods for data collection and hence adopts multiple methods to analyse those data. Both qualitative and quantitative data is collected through empirical method and mining internet data. Survey method is employed as the procedure of data collection to collect primary data. There has been effort to have a balanced gender population for adequate representative sample. The sampling method here is probabilistic sampling. Stratified sampling is employed; and it trifurcates the population into male, female and transgender. Then simple random sample is applied to overcome the differentiations of old or young, rich or poor etc. The sample size from Moscow is less and from Delhi more. Structured questionnaire and interview is employed as data collection tool (Babbie, 2013, 117).

In the process of data collection, the thesis relies on both primary and secondary sources. Studying the public opinion, governmental pronouncements, records of policy statements has given primacy. Various government documents are being used as primary resources. Government documents and records such as reports, policy statement and speeches of Mayor and chairman, along with document published by the foreign ministry and International Organisations, e.g. United Nations (U.N.), Non-Governmental Organisations (NGOs) and institutions analysed extensively. However, special emphasis has laid on gathering government documents. Analysis has taken

place keeping in mind that the secondary resources are best suit available. Secondary sources here include, books, periodical/ journal and newspapers articles, scholarly papers and other published and non-published resource material relevant for this study. It also use internet sources, ideas and views of think-tank and policy making bodies.

Types of research represents a particular aspect of research. None of the research type is exclusive and total exclusion to other research type. In fact, synthesis of different types of research is being deployed in this thesis.

The thesis looks into three broader gap areas

- The institutional gaps;
- The policy gaps; and
- International cooperation

Key Policy Variables for waste management are:

- GDP: as it enables to spend adequately for waste disposal;
- Population: as its nature to produce more or less waste matters; and
- Technology: proper technology may lead to the solution more easily.

## **1.8 Real, Nominal, and Operational Definitions**

Concepts are abstractions of reality. Concepts are shorthand representation of diverse facts. In short, concepts are the abstracted mental imagery of diverse facts (Waltz, 1979, 1). For example governance is a concept. In matters of study, there are numerous dimensions to the explanation of governance. It may be local governance, urban governance, regional governance, national governance, international governance, environmental governance, cyber governance, governance as process, governance as structure and so many. So abstracting the reality makes governance as a concept. In theoretical research, concepts which takes different values are called ‘variables’.

The thesis utilises ‘Concepts’ as ‘Variables’ in hypotheses formulation. The variable which the thesis wish to explain, or ‘the dependent variable’ is urban governance. The variables which produce dependent variable, or ‘the independent variables’ are

administrative structure and public policy. In the process of narrowing down the thesis critically examines the two variables in context to waste management.

Before proceed about the details of chapter it is very important to define the concepts and specify the connections among variables. The concepts which are discussed in this thesis are Governance, Urban Governance, Local Governance, Urban Local Governance, Global Urban Governance, Urban Global Governance, Future of Cities, Cities of Future, Public Policy, Sustainable Development, Waste, Solid Waste, Solid Waste Management, Green GDP.

Theory is an abstracted mental imagery of a bounded realm of interconnected concepts. Theories indicate what is connected with what and how the connection is made. A theory, according to Waltz, indicates that some factors are more important than others and specifies relations among them. In reality, everything is related to everything else, and one domain cannot be separated from others. In general, theories isolate one realm from all others in order to deal with it intellectually (Waltz, 1979, 8).

The broader theoretical paradigm is 'Sustainable Development'. It also takes into account neo-evolutionary and functional theory, where all perceive environment as a parameter to understand social reality (urban governance). Neo-Evolutionary theory is taken into account at the time of the historical account of urbanisation. Functional theory (sufficient understanding of a phenomenon is possible with situational data) is kept in mind during data collection. Sustainable Development Paradigm (whether it meet sustainability or not) is adopted for entire theoretical analysis (Gericke, Boeve-de Pauw, Berglund, & Olsson, 2019; Robert, Parris, & Leiserowitz, 2005; Shmelev & Shmeleva, 2018; WCED, 1987).

Theories of state, government and society are discussed for comprehensive understanding of governance. Governance theory, with particular institutional dimension and policy dimension are the broader theoretical paradigm here. Institutionalism as theoretical framework is employed to understand different currents of urban governance structure (Jonsson & Tallberg, 2001; Keohane, 2012; Koelble, 1995; Peters, 1999).

It is obvious that the research principally approach comparative method. The characteristics of comparative method here is both evolutionary and organic approach of the development of society. Evolutionary approach in the sense that the thesis

proceeds with the notion, with the course of time, urban governance is moving from simpler to complex pattern. Positivist approach backs the data collection for above mentioned theoretical premise. Organic approach indicates, urban governance is the integration of whole from which structural and policy variable is considered. Three elements comes to in mind for comparative method. Firstly, the methods of comparison; secondly, the units of comparison; and thirdly the purpose of comparison. Since comparison could be done in countless ways, the method of comparison here is fixed temporal and spatial dimension. The temporal dimension is primarily the 20<sup>th</sup> and 21<sup>st</sup> century and particularly, from 1991-2016. There are variations (historical and futuristic) in temporal dimension for better understanding the historical progress and for very recent developments. The units of comparisons are the administrative structure of Russia and Bharat. The exclusive units of comparison is the governance patterns of Moscow and Delhi. More specifically the role of administrative structure of both the capital cities in mitigating waste management. Hence, the units for comparison includes administrative structure, public policy and empirical data relating waste of both the cities. The purpose of comparison here is comprehend 1) the rising pollution and waste related diseases; 2) the rising discontent and unrest among civilians due to waste and 3) to find out whether both can learn and develop new governance pattern for better governance of the important-most cities of the respective nations.

In international phraseology names of capital cities primarily connote two meanings. One talks about the capital city and another metonymically represents the State itself. For example 'Moscow' refers to the Capital City of the Russian Federation; and at the same time, it also understood metonymically as the representational image of the Russian Federation. Moscow, throughout the thesis, represents the capital city of Russia otherwise not specifically stated. The title of the thesis contains 'New Delhi' as the representation of the capital city as it is used in international phraseology. It do not represents the administrative region of whole 'Delhi'. Delhi is used for the whole administrative region which is also known as 'National Capital Region' (NCR). The unit of comparison is 'Delhi' rather 'New Delhi'.

Administrative division vs territorial division are not same always. So, administrative structure and territorial structure should understood carefully. For example, in Moscow

12 territorial structures (Administrative Okrugs) are administered by 11 administrative structure ( Prefects) (DIOIV, n.d.).

During discussion about administrative structure of Russian Federation, ‘Subject’ means ‘Federal Subject of Russian Federation’. The ‘Federal Subjects’ are the constituent parts of Russian Federation, and are equal in matters of constitutional status.

Throughout the discussion in the context of Bharat, the ‘State’ imparts different notions. The State has general usage as well as it refers to the second tier of government as a kind of provincial governments in other countries.

In the course of the discussion of Russia, the structure of federal government and the structure of subjects got more space as there are no noticeable structure of local governance. In case of Bharat, due to existence of definite LSG body, structure of Union Government and State Government gets less attention in comparison to Russia.

Moscow and Moscow-City are different entities and should be understood differently. Moscow-City is a commercial development - Moscow International Business Centre – and a part of Central Administrative Okrug of Moscow (“Moskva Siti,” n.d.). There should be no confusion between ‘Moscow’ and ‘Moscow Region’. Both are different administrative-territorial units in Russian Federation. Moscow is the Capital City and also the internationally acknowledged representative image for Russia. Both ‘Russia’ and ‘Russian Federation’ are interchangeably used and express the same meaning as both are constitutionally ratified names. Bharat and India are both constitutionally recommended names. Both ‘India’ and ‘Bharat’ are used interchangeably in this thesis.

Federal Okrugs/Federal Districts (Federal'nyye Okrug) are the largest territorial subdivisions and extra-constitutional entities in Russia. Autonomous Okrugs (Avtonomny Okrug) were previously known as ‘National Okrugs’. The Soviet Constitution of 1997 had changed nominally the ‘National Okrugs’ into ‘Autonomous Okrugs’, and territorially, had started them subordinating to the Oblasts and Krays. In English, Autonomous Okrug translates into ‘Autonomous District’ or ‘Autonomous Region’ or ‘Autonomous Area’ - all carrying the same meaning. It has two subsequent meanings – a type of Federal Subjects of Russia and a type of administrative division of some Federal Subjects. As of now Chukotka Autonomous Okrug is the only one Autonomous Okrug and Federal Subject. Nenetskiy Autonomous Okrug (of



Arkhangelsk Oblast), Khanty-Mansiyskiy Autonomous Okrug — Yugra (of Tyumen Oblast) and Yamalo-Nenetskiy Autonomous Okrug (of Tyumen Oblast) are simultaneously Subjects of Russia and Autonomous Okrugs of different Oblast. Agin-Buryat Okrug, Komi-Permyak Okrug, Koryak Okrug and Ust-Orda Buryat Okrug are the territories of special status of different Federal Subjects but are not Federal Subjects. Okrug refers to the administrative division in Tver Oblast.

In some cities such as Omsk, Tyumen, Krasnodar, Belgorod, Kursk and Novorossiysk, Okrug denotes administrative division with different names such as ‘City Okrugs’ and ‘Municipal Okrugs’. In Arkhanlesk and Lipetsk, the Okrugs are territorial divisions and refers as ‘Territorial Okrugs’. In rural areas it also refers to rural administrative divisions (Selsky Okrugs) such as Rural Okrugs of Belgorod Oblast, rural territorial Okrugs of Murmansk Oblast and Okrugs of Samara Oblast.

In Cities of Federal Significance, ‘Okrug’ refers to kind of administrative divisions. In Saint-Petersburg, it refers to lower level municipal division; but in Moscow it refers to higher level municipal division.

‘District’ has the different meaning in Russia and in Bharat. The concept should be understood according to the national concept of the both state rather a single conotation. Districts have the same connotation throughout In India. But in Russia the understanding of ‘Okrug’ should be cautiously and distinctly taken. Because, though its meaning roughly translates as ‘District’, it has numerous connotations at different contexts. It is different, and not the same as understood in Bharat. It represents particular kind of administrative division. In Russia for bigger districts, ‘Okrug’ is used, and for smaller districts, ‘Raion’ is used. Raion is the simple administrative unit without taking into consideration of ethnicity or nationality. It is simultaneously a sub-national entity and administrative unit of a city.

In Cities of Federal Significance, ‘Okrug’ refers to kind of administrative divisions. In Saint-Petersburg, it refers to lower level municipal division; but in Moscow it refers to higher level municipal division. The understanding of Okrug should be cautiously taken with particular kinf of administrative division. Municipal Districts (Munitsipal'nyye Okruga) were the territorial units of LSGs during 1991. These were replaced as Districts (Raions) after the 1995 law “On the territorial division of the city of Moscow”.

During the discussion about administrative structure of Moscow, two kinds of 'Districts' appear in phraseology. Higher municipal territorial division are 'Administrative Districts' and lower municipal division are 'Districts'. The corresponding actual Russian nomenclatures are 'Administrativny Okrugs' and 'Raions'. The English translation though maps the correct meaning, but to avoid confusion Administrative Okrug is used instead of translated meaning 'Administrative District'. District, when discussion surrounds about Moscow, corresponds to 'Raion' as the lower municipal division existed in Moscow.

In third chapter the evolutions of local governance is proceeded by urban governance, because in Russia and In Bharat the modern form of urban governance follows the local governance wave after 1993.

During discussion on self-government, LSG bodies as whole got a major share and ULBs get lesser. It is because in Russian context a single integrated law of 2003 guides ULBs through LSG legislation. Then separate Charters decide remaining ULB functioning. In the context of Bharat, two different amendments - 73<sup>rd</sup> amendments for rural LSG and 74<sup>th</sup> amendment for urban LSG - introduced for different settlement.

Researcher has used operational definition of some of the terms and concept used in this study which tries to accommodate for the whole thesis. They are as follow:

**Urban Governance** is *the process of formulation and implementation of urban policy*. There is no uniform approach for urban governance. The pattern varies from country to country and even it varies among different urban settlements within a country. The above definition is an operational definition for this thesis.

**Urban local governance** is used in general sense and not strictly in the sense of local-self-government. *Urban Local Governance is the idea of providing basic urban civic amenities to the same urban people by an urban local body*. The urban local government structure may vary in degree of autonomy and decentralisation, but all variants are considered as the structures of urban local governance.

Urban Governance is the umbrella term which includes the structure and functions of urban government. Along with specific structure, the provision of right to elect public representative, turns urban governance into urban self-governance.

Here, Public Policy is primarily urban policies related to waste management and environment. **Public Policy** is *the means by which a government maintains order or*

*addressed the needs of its citizens through constitutionally defined acts.* The term is used to describe a collection of laws, mandates, or regulations established through a political process.

**Green GDP** is a term used generally for expressing GDP after adjusting for environmental damage. In other words, *Green GDP is a monetization of the loss of biodiversity caused by climate change.* It is calculated by subtracting resources depletion, environmental degradation from the traditional GDP figure. It is very helpful for managing economies as well as resources.

**Wastes** are discarded substances which are declared unfit for further use. Any substance is proposed to be disposed of or is disposed of is called waste. Waste is *“Any solid, liquid or gas, or any combination of them, that is a surplus product or unwanted by-product of any activity, whether the product or by-product has value or not”* (DSEWPC, 2012, 5).

**Municipal Solid Waste** is *the sum total of “all domestic refuse and non-hazardous wastes such as commercial and institutional wastes, street sweepings and construction debris”* (UNCED, 1992).

Wastes collected, transported and disposed by municipality or for municipality is often called **Municipal Waste**. Since major chunk of “Municipal Waste” is solid in nature, “Municipal Waste” and “Municipal Solid Waste (MSW)” are used in a synonymous manner.

**Waste management** is the *“collection, transportation, and disposal of wastes”*. Simply, the process of supervising and handling of waste material from the place of its generation to its disposal, is regarded as waste management. Here handling includes all activities “relating to sorting, segregation, material recovery, collection, secondary storage, shredding, baling, crushing, loading, unloading, transportation, processing” and also disposal of wastes (MoEFCC, 2016).

**Extended Producer Responsibility** is an environmental policy approach which integrates all costs associated with goods and extends responsibility of the producer to the post-consumer stage of entire life cycle of a product. Though EPR is based on Polluter-pays principle, it also talks about for the take-back, recycling and final disposal of the product (Lindhqvist, 2000).

*Paradiplomacy is diplomacy conducted by sub-state governments and at level below national level.* It introduces the idea of decentralisation of political power to make regional governments prominent actors in the international sphere. National governments are making formal relations with cities and provinces. With changing time, diplomacy is adopting changing values. Global governance is taking a new turn with the rise of ‘Paradiplomacy’ where cities and its mayors became ambassadors in the world stage (Amen, 2011). The international activism in cities are growing across the world. It is transforming the diplomatic practices as well as the service delivery methods. Though not new, paradiplomacy is becoming inevitable in this changing world. Cities establishing their representations abroad, managing their own diplomatic networks, have important say in international affairs. Cities are now members of international organisations. As Tavares points out, nearly 125 multilateral arrangements of subnational governments including the Local Governments for Sustainability (ICLEI), Urban20, Global Parliament of Mayors (GPM), United Cities and Local Governments (UCLG), or the Cities Climate Leadership Group (C40) are forming allies across the globe (Tavares, 2016). Global Parliament of Mayors (GPM) – a governance body of mayors – strives to tackle local challenges emerging out of global problem. This is a global governance platform which harness the collective power of cities. It advocates about local government and city’s right to self-rule.

The initial year of periodization is 1993, as it is the same year of adoption of the current constitution of Russian Federation.

The governance structure connotes the composition of six – political, territorial, administrative, functional, financial and judicial – elements. The thesis approaches with the integrative territorial, administrative and functional element going with only few details of financial, judicial and political elements.

The purpose of the research in this thesis is to explain the role of urban local government in mitigating the problems arise due to waste. By doing so it tries to find the causal relationship among variables (concepts). The research stresses that Moscow and Delhi should come together and join hands to wipe out the problems related to waste which is becoming existential challenge to both the cities.

## 1.9 Chapterisation

**Chapter I:** The First Chapter introduces the background of the research area. The Chapter lays down the blue print of the thesis. After a brief discussion of dangers looming due to waste in urban landscapes, it problematize the research in relation to urban governance. It delineates the research problems; states the objective of study; puts the research questions of the thesis. It states the hypotheses for testing. The Chapter extensively discusses ‘research methodology’ for theoretical paradigm, for methods of data collection and source of data collection, and to test the hypothesis. This Chapter states the real, nominal and operational definitions of the ‘protagonist concepts’ used in the thesis. It also describes the chapterisation and the limitation of the study.

**Chapter II:** This Chapter architects all the theoretical premises used in the thesis. The chapter provides a critical analysis of theoretical literature. As the thesis is empirically grounded theoretical research, theories relevant to the thesis are discussed in detail. The Chapter delineates the theoretical premises of Governance, Local Governance, Urban Governance, Urban Local Self-Governance, Global Urban Governance, Urban Global Governance, Regime Theory of Governance, and Public Policy. This Chapter also chronicles the Evolution of Urban Local Self-Governance with historical context. The Chapter extensively discusses the ‘Concepts’ in detail for better understanding of the theoretical premises. This Chapter explains and tries to comprehend the importance of Urban Governance in 21<sup>st</sup> century. The Chapter portrays the challenges and constraints of Urban Governance.

**Chapter III:** This Chapter mainly focuses on the constitutional provisions and the structural aspects of both the countries and focuses exclusively on the constitutional and structural aspects of ULG of Moscow and of Delhi. The Chapter chronicles the evolution of Urban Governance in both the Capital Cities. During the descriptions the third chapter tells only the laws and the constitutional provisions related to ecology, environment were mentioned. It is because to highlight the agencies and laws who are dealing to waste management policy and their implementation. The chapter talks extensively the executive structures at the level of Federal Government and of Local Governments. This Chapter puts a comparison of Russia and Bharat in context of

constitutional and structural aspect. This brings a detailed comparison of organs of LSG bodies of Moscow and Delhi.

**Chapter IV:** The design of this Chapter helps to understand the efficiency of structural parts of ULBs of Moscow and of Delhi in particular aspect of Waste Management. It points that the waste generation pattern is linked to economic development and consumption habits rather than any specific economic model. The Chapter discusses in detail the concepts associated to waste and the policies adopted in international context, in the context of Russia and in context to Bharat. This chapter sketches the structural and policy implication of ULG on waste management. It is premised upon the fact that better policy and better structural arrangement in ULB will better for increasingly urbanised world. The Chapter analyses the policies, related to waste management, of Russia and Bharat and in particular of Moscow and Delhi. This Chapter tries to explain, how the structural and policy aspects of Moscow and Delhi are struggling to face the problems emerged due to waste.

**Conclusion:** This chapter has three broad outlines: summary, concluding remarks and recommendation. In summary the chapter tries to explain the findings which were based on research objectives, research questions and hypothesis.

In this part the researcher has summarised the thesis chapter wise. On the basis of theoretical discussion and the empirical data he has tried to put concluding remarks. A brief recommendation is followed by concluding remark.

## **1.10 Limitation of the study**

The study probably has limitations. The researcher has tried to comprehend the best available literature, still there might have constraints. Firstly, as it is mentioned earlier the thesis is empirical grounded theoretical research, data collection should play a major role which could not as expected. Secondly, more time was required in particular data collection from Moscow. Thirdly, interview from the authorities of Moscow government could not be provided which could provide a better perspective to research. Fourthly, better comprehension of Russian language might have augmented research effect. Fifthly, in actual practice, there are numerous independent variables influence the dependent variable (urban governance) whereas only two independent

variable (the policy dimensions of urban governance and the implementing structure or the structural dimension of urban governance) is taken into consideration. Sixthly, less focus on financial matters of LSG is another limitation. No institution can be analysed thoroughly without its financial aspect.

# Urban Local Governance and Public Policy: A Theoretical Understanding

“The 19<sup>th</sup> century was a century of empires, the 20<sup>th</sup> century was a century of nation states. The 21<sup>st</sup> century will be a century of cities.”

- Wellington E. Web

For quite a while, urban governance is at the heart of global academic discourse. Over the years, it has gained ample momentum and broad attention. Everyone has been talking about ‘Future of Cities’ and about ‘Cities of Future’. As many as more than 55% of 7 billion world population live in urban areas; more than 700 cities expected to have population more than one million by 2030 (UNDESA, 2018j, 2018k, 2018p). It is evident that more people live in urban landscape rather rural areas.

As the world urban population is growing in an exponential rate, the new challenges are emerging and are encountered at the governance levels of cities. The environmental, political, social, and economic prospectus of the world rise and fall with the ability and transformation of urban governance; and for a sustainable and resilient urban government, urban public policy is instrumental. Public policies have to face massive challenges and extricate those challenges which might have originated within or outside of urban agglomerations.

This chapter will introduce the theoretical impetus on urban governance, local governance, public policy, and will try to establish complementarity of these concepts. For doing so, the chapter will explore the origin and evolution of urban governance. The chapter analyses the factors influencing at local, national and international level.

Theoretical aspects of public policy which undoubtedly focuses on urban policy, and its role in shaping urban governance has been discussed in this chapter. There will be discussion on historical genesis of governance with relation to origin of state and also a brief analysis of kinds of governance. This chapter tries to define an operational definition of governance for the comprehensive understanding of urban governance.



This will shed light on contemporary developments in urban governance theories. The chapter aims to give some coherence to the discourse of urban governance through public policy approach.

The aim of this chapter is three fold. Firstly, it wants to shed light on the concept of governance with an intention to make a comprehensive understanding of urban governance. Following the conception of governance this chapter discusses public policy. Secondly, it concentrates about public policy and it shows how public policy approach to urban governance is the need of hour. Thirdly, it hopes to make a contribution to the discussion of urban governance, evolutions of urban governance, some theoretical strands, and challenges for sustainable urban governance. Using the notion of governance, a typology of governance, suitable for urban governance is systematically developed. The chapter starts with the irrefutable fact that ‘world is increasing urban’ and later develops a world view of urban landscape. The next section portrays the demographic, economical, ecological, political, social landscapes of urban landscape.

## **2.1 City: A Conceptual Understanding**

Cities are the ancient phenomenon. They predates to the nation-states, but came into prominence only during 20<sup>th</sup> century. Asserting the importance of cities in 21<sup>st</sup> century, Engelke (2015) tells cities will be the places “where humankind either wins or loses the twenty-first century”, “where most humans live, and where nearly everyone will live just a few decades hence”, “where citizenship is defined, redefined, and contested”, “generate most of the world’s wealth, encourage the bulk of its innovation, and concentrate much of its poverty” (p.1). Cities, as he describes, are where many greatest challenges of our civilization are felt most acutely.

Right now we are experiencing the unique and most important transformation in the human history of demographic destiny. Leaving the long history of rural-centred community and approaching the large, dynamic, complex, urban-centred agglomeration. We are at the cross road of the demise of rural society and emergence of urban society. At the dawn of industrial revolution, nearly around 1800, only 2 percent of the world’s population lived in urban areas. In 1900, over a period of 100 years, only 15 percent of the world’s population made their place in towns and cities.

The 20th century has seen unprecedented urban transformation. The urban population growth was accelerated steadily from 1950s. In 1950, nearly 70% of people worldwide lived in rural areas. But, for the first time in history, in the year 2007, more than 50% of the world's population became urban dwellers. Now, the estimations assert more than 55% of world population is urban; and predict that the population is expected to rise up to 68% - more than two thirds of the world population - by 2050. The world is transforming itself rapidly both in the percentage of population living in cities and also in the growth of urban agglomerations. As many as 33 major cities hold more than 10 million people (UNDESA, 2018a, 2018b, 2018c, 2018d, 2018e, 2018f, 2018g, 2018h, 2018i, 2018j, 2018k, 2018l, 2018m, 2018n, 2018o, 2018p, 2018q, 2018r, 2018s).

Economically, much of the world's wealth is created and is consumed by city dwellers. Cities are the foci of wealth creation hubs. Glaeser (2010, 2011) draws attention to the fact that though cities accommodate more than half of people their per capita income is four times more than total rural community. He believes that the west-to-east shift in global economy is due to rapid urbanisation in East-Asia. Urban destiny provides a clear path to billions of people for economic upliftment. It lift millions of family from poverty and shows a definite path to prosperity. Cities hold a disproportionate amount of world's employment, GDP, and the centres of accelerated economic growth. Nearly 300 cities account for more than half of the total world economy (Bouchet, Liu, Parilla, & Kabbani, 2018).

Ecologically, cities are the places "where most of the world's resources are consumed and much of its waste produced" (Engelke, 2015, 2). The ecology of world relies entirely on cities as they produce major chunk of pollution. Well-built, well-planned, and well-functioning cities can be environmentally sustainable. The 'Green City' concept, which is also foster economic sustainability, pitch for a good urban planning and governance as the solution of world's greatest economical challenge.

Politically, cities are the place from where governments operate, where most of bureaucrats live, most politicians live, most of government offices are situated. The major political events occur in urban areas only. If we blink to history, it would not be a mistake to tell that the modern history of all the nations are the urban political events of the cities (more specifically political events of capital cities of the nations).

Cities are the places where all the major revolutions and unrest have been taken place. Whether American independent Revolution, French Revolution, Russian Revolution, Arab Revolution, Colour Revolutions or fall of communism, end of apartheid, civil rights movement etc. all are fundamentally urban revolutions. Authorities are being challenged from the squares of cities. Cities are the medium for revolution and revolutionary change (Brugmann, 2009; Harvey, 2012).

Socially, as Engelke (2015) states, cities have been fostering power diffusion enabling individual empowerment. Again he argues that “cities provide individuals with easier access to education, services, economic opportunity, and ideas. At the same time, they erode traditional social structures and build new identities, forming the conditions in which citizens become engaged in politics” (p.2). Cities, he asserts, are “cultural mixing bowls, where the traditional and the modern, the old and the young, and the established and the avant-garde all clash and recombine, resulting in new forms of cultural expression and types of social relationships” (p. 4).

Slums, in cities, are the manifestations of worst urban governance. Slums are now an increasingly phenomena in cities. Urban governance failure would lead thousands of uneven, unhygienic slums. Then, in urban agglomeration, Engelke (2015) conceives, “criminals and organized terror networks more easily traffic in drugs, humans, arms, and instruments of terror, while communicable diseases may find easier pathways to form and spread quickly into pandemics” (p.4). He rightly pointed out that it is not the slum dwellers who themselves are problems, rather “poor planning and governance of cities—including the failure to positively engage slum dwellers will leave behind a huge and growing urban underclass in many cities around the world” (p. 4).

It is observed that local issues have the potential to become national ones with alarming speed. Local issues ignite the spark for interconnected, cascading, disastrous, violent, insecure events around the world. Local issues lead the path for global vulnerability. Citing this regular pattern worldwide, Engelke, tells “Since 2013, for instance, networked urbanites have driven mass demonstrations in Turkey, Brazil, Hong Kong, and Lebanon. In all these cases, classic issues of local governance (preservation in Istanbul, bus fares in Brazil, elections in Hong Kong, garbage service in Beirut) swiftly became symbols for long-standing, larger grievances about national

governance. All escalated into serious challenges to state authority and competence” (p. 5).

If the problems of the urbanisation would not be given adequate attention, it would be economically, ecologically and politically disastrous, and will become a dangerous place to live. Crisis in city became the source of global vulnerability.

Engelke (2015) makes the point that “When functioning at their best, cities encourage trade and technical innovation, the arts and education, and social tolerance and political citizenship while imposing low burdens on local, regional, and global ecosystems” (p. 2). Spotlighting the necessity of better urban governance, he emphasizes that “Humankind will benefit enormously if the world’s cities are built, designed, and governed to be economically productive and innovative, socially inclusive, environmentally sustainable and resilient, and safe and secure. Such cities enhance national stability and prosperity while making global governance much less difficult” (p.2). He also warns the ugly side of bad urban governance. When functioning at their worst, cities, according to him, “increase the risk of political instability, make residents’ lives insecure through crime and violence, encourage illicit trafficking, contribute to pandemic disease formation, and constrain national economic performance, while stressing local, national, and global ecosystems. Such cities make global governance far more difficult” (p.2).

Rapid global urbanisation has tremendous economic, social and environmental impacts and the trend will go further. The coming decades will have significant transformation in the spatial distribution of global population. As Ramic (2019) predicts

Cities will remain the last frontier, the defenders of values like democracy, tolerance, diversity, connectedness, and enabled by technological capabilities and private enterprise, they will thrive. A new landscape of urbanization will be created which will change the definition of governance, citizenship, and territory.

A new set of powerful, sovereign cities could band together to take on rising global challenges in an increasingly polarized world (para. 10-11).

To understand this complex web of urbanisation and contemporary urban policies, a comprehensive outline of governance, government and their inclination to different ideology, public policy especially urban public policy, and its impact on urban governance is discussed here.

As urban governance is important aspect of governance, this chapter is intended to stimulate the very critical question, “what is governance?” The multi-faceted striking trends of governance is elaborated for a broader understanding of governance. The impact of change of government on governance as well as on urban governance is well understood. The inevitability of urban governance among other kinds of governance has been elucidated here.

## **2.2 Governance: A Theoretical Understanding**

This section explores the literatures on dimensions on governance paradigm. In order to have a clear picture, the section connects the social dimension, political dimension, and structural dimensions of governance. In order to provide a comprehensive and integrated understanding of urban governance, within this section, relationship among society, state, government and governance is being elaborated.

Governance has never been a static idea. The history of governance is parallel to the history of human evolution. Governance, with the course of time, acquires momentum and broader meaning. More or less, the dynamic nature of society is the primary cause for the diverse connotation of governance. It has showed its inherent character of institutional rules and operating environment for formulating and implementing policies. Its nature and scope has been changed with the change of the nature and scope of state. It has not only incorporated the character of institutional rules, but also encompassed and transcended to the concept of state, society, regime and administration. The meaning however has taken different connotations at different temporal and different spatial dimensions in its complex historical journey. For example the meaning of governance during antiquity was exclusively “the act of government” but now it denotes “a process to formulate and implement policies” (Stoker, 1998). The change of its connotation is due to the different power structures have existed at different point of time and space.

There is no universal model of government and hence governance. To understand different models of governance, it is crucial to understand different forms of government. Some governments are autocratic: ‘power of one’ - its sub-structures are like despotism, dictatorship and military dictatorship. This has a severe impact on patterns of governance. To understand the structural components of governance, it is

necessary to understand the conceptual framework such as ‘the state’ and ‘government’. The next section shows the integrated approach of ‘the state’, ‘the government’, and ‘governance’.

### **2.2.1 Society and Governance: The woven Fabric**

Society is an evolutionary human social organisation. Scholars differ whether society predates state or other way around. Social Contract theorists propound society born out of ‘Social Contract’. Among them most influential theorist Hobbes (1998) contends:

In such condition, there is no place for industry; because the fruit thereof is uncertain: and consequently no culture of the earth; no navigation, nor use of the commodities that may be imported by sea; no commodious building; no instruments of moving, and removing, such things as require much force; no knowledge of the face of the earth; no account of time; no arts; no letters; no society; and which is worst of all, continual fear, and danger of violent death; and the life of man, solitary, poor, nasty, brutish, and short (p. 84).

His basic postulate, ‘war of all against all’, is the key to understand evolution of human society. He calls it the ‘State of Nature’. In a similar approach, Rousseau (2017) explains sovereignty is vested in each individual and hence they enter into contract directly with each other after finding a proper form of association. On evolution of society he holds, “The passage from the state of nature to the civil state produces a very remarkable change in man, by substituting justice for instinct in his conduct, and giving his actions the morality they had formerly lacked” (p. 69).

Maine (1917) puts a different view which asserts the existence of society before the emergence of state. He opines:

Much of the old law which has descended to us was preserved merely because it was old. Those, who practised and obeyed it, did not pretend to understand it; and in some cases they even ridiculed and despised it. They offered no account of it except that it had come down to them from their ancestors. If we attention, then, to those fragments of ancient institutions which cannot reasonably be supposed to have been tampered with, we are able to gain a clear conception of certain great characteristics of the society to which they originally belonged. Advancing a step further, we can apply our knowledge to systems of law which, like the Code of Menu, are as a whole of suspicious authenticity; and, using the key we have obtained, we are in a position to discriminate those portions of them which are truly archaic from those which have been affected by the prejudices, interests, or ignorance of the compiler (p. 72).

Morgan (1985) and Engel (2010) opine there exist societies before state. They further argue those societies were more egalitarian than the emergence of the modern state. Talcot Parson (1987), Tim Ingold (1986), Brian Skyrms (2004), Robert Trivers (2002), Johnson & Earle (2000), George Weigel (2015) and many other scholars argue that the stateless societies govern themselves with different pre-state governance patterns. We observe the governance pattern is the pattern associated with the state or more precisely the government.

### **2.2.2 The State, Government and Governance: The Intertwined Truss**

When there is a discussion about governance, a common thought invades the mind: the relationship among the state, the government, the individual and governance. Rosenau and Czempiel (1992) postulate, “to presume the presence of governance without government is to conceive of functions that have to be performed in any viable human system irrespective of whether the system has evolved organizations and institutions explicitly charged with performing them” (p.3). It indicates the broader approach of the governance than the government. Although, there is a bit resemblance between governance and government, they are not congruent at all.

For millennia, humans might have lived stateless societies. With course of time, many human societies formed different institutions to govern themselves, keeping security - as the paramount goal (Leibfried et al., 2015). They have cultivated and erected different forms of states with proper justification (Force Theory, Evolution Theory, Divine Right Theory, Social Contract Theory, and Environmental Theory) for existence of those states (Christie, 1995; Dunleavy & O’Leary, 1987; Elster, 2001; Hall, 1994; Poggi, 2004; Sarkar, 1921). The evolution of government came into light to fulfil the wishes of state. As government and state are not the same institutions, it is crucial to know the relationship between the government and the state; for more comprehensive understanding of the nature and role of government and state in governance.

Though, there is no academic consensus on congruous definition of state, a widely accepted definition is picked from ‘Montevideo Convention on Rights and Duties of States in 1933’. The Convention equates a state to a person and delineates four

criteria of statehood: notably (a) a permanent population; (b) a defined territory; (c) government; and (d) capacity to enter into relations with the other states (article 1). The incorporation of government as one of criteria asserts the subordination of the government to the state. This view has later been endorsed by International organisations like League of Nations (LN), United Nations (UN) and European Union (EU) and many others as a customary international law; who have followed the 'declarative theory of statehood' rather 'the constitutive theory of statehood' (LN, 1936; Pellet, 1992; UN, 1945). Terming the above definition as generic and locational definition, Nettle expounded:

The overall conceptual identification of state with law, with bureaucracy, or with government merely reimposes an artificial (and to a large extent self-defining) notion of state by grouping structure that are better particularised and that are part of the state in some empirical situations but not in many other where some or all of these structures exist and function without any valid notion or phenomenon of state at all (Nettl, 1968).

As noted by Laski, the state is "a territorial society divided into governments and subjects, whether individuals or associations of individuals, whose relationships are determined by the exercise of this supreme coercive power" (Laski, 2017, 105). As from above explanations, it is clear that a state is composed of four essential components, and government is only one crucial component of the state.

Though sovereignty is not mentioned explicitly in Montevideo Convention, Kreijen (2004) proposes, sovereignty is fundamental to international law and order. Friedman (1964) also narrates about the gradual change in the constituent elements of state in international legal order in the course of time. It has changed from a Westphalian order which was characterised by independence and co-existence to post-Westphalian order of interdependence and cooperation. So conceiving these arguments, it can be understood that sovereignty lies with states but not with governments. More precisely, states have sovereignty and governments have the sacred duty to protect that. At the same time territory is the component of the state and the government protects it.

Terming the state as a natural institution, and asserting the unbroken attire of the state, Aristotle, in his famous work 'politics', stresses:

When several villages are united in a single complete community, large enough to be nearly or quite self-sufficing, the state comes into existence, originating in the bare needs of life, and continuing in existence for the sake of a good life. And therefore, if the earlier forms of society are natural, so is



the state, for it is the end of them, and the nature of a thing is its end. For what each thing is when fully developed, we call its nature, whether we are speaking of a man, a horse, or a family. Besides, the final cause and end of a thing is the best, and to be self-sufficing is the end and the best (Aristotle, 2014, 4268-4269).

He argues further that since “the state is a creation of nature, and that man is by nature a political animal”, “he who by nature and not by mere accident is without a state, is either a bad man or above humanity; he is like the Tribeless, lawless, hearthless one” (Aristotle, 2014, 4268-4269). For Aristotle the state evolved naturally with a cause; for the good life of men and women. The government is there to deliver that intention of the state.

The enlightenment intellectuals believe that the state was the result of ‘Social Contract’ between the governed and those who govern. So the crucial work of state should to protect the natural rights of individual. For securing natural rights, they argue, individuals also give up some amount of freedom to the state (Hobbes, 1994; Locke, 2017; Rousseau, 2017). Intellectuals of this period (Age of Enlightenment) raise voice against the atrocities of the Church; argue for the separation of the state and the Church. So, they primarily argue for protection individual rights through the state.

Hegel conceives modern state as the manifestation of moral community existed in ancient world. To him, state is a dialectical synthesis of family, civil society and of the state itself. He thinks the state as the divine manifestation. He terms the state as the march of god on earth (Hegel, 1991, 2001). He propounds “All the worth which the human being possesses - all spiritual reality, he possesses only through the State” (Hegel, 1929, 388). He outlines the goals of state as to recognise the sequentiality of practical activity of men.

McIntosh asserts, “Government is the means through which state policy is enforced, as well as the mechanism for determining the state policy. States are served by a continuous succession of different governments” (McIntosh, 2018, 1). States are immaterial and non-physical entities, whereas governments are groups of people with certain coercive powers. Emphasizing the function of government as monopoly of policy making and arbitration of conflicts. Governments are the means through which state power is exercised at a given point of time. The relationship between a government and its state is one of representation and authorized agency.

Weber expounds the state as the legal rational authority. He pronounces the state “as a compulsory political organization with a centralized government that maintains a monopoly of the legitimate use of force within a certain territory”, and also outlines the institutions of the state as legal system, military system administrative bureaucracy (Dubreuil, 2010; Shaw, 2003; Weber, 1946, 2013). Government has the organs like legislative, executive and judiciary whereas government is itself an organ of state. In a particular state, there might be rise and fall of several governments. Because the state is permanent and within it, the governments are subject to change.

Liberals view state as a necessary evil. For them the government is best when it governs least. They emphasized the role of government as to protect the individual’s natural rights of life, liberty and property (Hall, 1994; Locke, 2017).

Marxists vehemently oppose the state as an institution. They are in denial mode the empirical fact that the state exists. For them the society should be a communist society where the proletariat won the means of production and hence the state and government must be withered away. They interpret state as a tool of oppression in the hands of bourgeois to oppress proletariat (Avineri, 1991; Lenin, 2002; Marx, n.d.). That’s the cause why in most of the states of world, they are branded as anti-state community or anti-nationals (Bourguiba, 1957; Chris Harman, 1992; Krastev, 2018).

In Gandhian view, the state has to act as ‘a trustee’ of the people. He upholds that the state should hold people’s power as a trust for welfare of the people. It should consider people as co-rulers in its governance rather as helpless, subjugated and powerless subjects. He conceives “the good of the individual is contained in the good of all” (Desai, 1932, 149). Invoking the concept of ‘Sarvodaya’, he categorical denounces the libertarians who supported “of the greatest good of the greatest number” (p. 149). For the moral state ‘Ramrajya’, he thus opines:

I do not live in the doctrine of the greatest good of the greatest number. It means in its nakedness that in order to achieve the supposed good of fifty-one per cent, the interest of forty-nine percent may be, or rather, should be sacrificed. It is a heartless doctrine and has done harm to humanity. The only real, dignified, human doctrine is the greatest good of all, and this can only be achieved by uttermost self-sacrifice (p. 149).

On economic front the role of state, as advocated by Gandhi, is to removal of economic disparity.

Thus, the emergence of state signifies the necessity of the state formation. It also signifies the peculiar role in coordinating the affairs of the people, of different contradictory social groups, and communities; and its ever changing nature of functioning. In short, government is there to govern, not the state. The goal of state is the betterment of individual and it is being done by governing individuals in a just way. So, government is the agency or the institution which fulfil the will of the state. The state is the whole whereas government is formed by a limited portion of individuals.

Oxford dictionary, with its structuralist view, explains government as “the system by which a state or community is governed”, and at the same time with its sociological view, it defines government as “the group of people with the authority to govern a country or state” (Oxford Dictionary, n.d.). In political context, government is an independent political community to govern themselves. Government is the sovereign power which protects the defined sovereignty from external aggressors and controls internal law and order (Lansing, 1907). As a structural view point, government is the machinery through which the sovereign power exercise its will. In today’s context, government is the legitimate institution to govern a community or state. Today, most of governments get its authority and legitimacy through constitution, which delineates the governing principles and philosophy. Structurally, government consists of legislative, executive and judiciary to function efficiently.

Some conceive the role of state should be to distribute the wealth to mitigate inequality of wealth. Some conceive the role of state to maintain law and order and to protect from external aggression and internal disturbance; to supervise the functions of development and welfare of individual and society as whole. All the functions need to be done or governance of individual could be done through legitimate institution. The legitimate institution created is called the government. In comparing governance and government, Rosenau and Czempiel (1992) opine:

... both refer to purposive behaviour, to goal-oriented activities, to systems of rule; but government suggests activities that are backed by formal authority, by police powers to insure the implementation of duly constituted policies, whereas governance refers to activities backed by shared goals that may or may not derive from legal and formally prescribed responsibilities and that do not necessarily rely on police powers to overcome defiance and attain compliance. Governance, in other words, is a more encompassing phenomenon than government. It embraces governmental institutions, but it

also subsumes informal, non-governmental mechanisms whereby those persons and organizations within its purview move ahead, satisfy their needs, and fulfil their wants (p. 4).

For them, governance is system of rules which is workable if majority accept it, but governments can function irrespective of opposition.

Government is the most important institution of state which works to fulfil the objectives of the assigned state. Nature of the state changes according nature of government and vice-versa. For example, if the government is a capitalist one then the nature of the state is capitalism. Similarly, if the government is a communist government then the nature of state is communism; the state is told to be a theological state if the government is governed by religious scriptures or religious laws; the nature of the state is delineated as secular if it has a government with a constitution where rule of law is practised and no religious superiority is maintained, and equality of right is maintained.

### **2.2.3 Governance: The Concept**

For a long time, Governance as the concept has been widely discussed, debated around political and academic discourse. But, rarely a consensus has been arrived for a concordant definition. Various institutions define governance according to the nature and goal of that institution. The International Centre for Parliamentary Studies<sup>1</sup> (n.d.) draws the analogy of governance to the word 'kubernao'<sup>2</sup> and emphasizes that there is no universal definition of governance. The World Bank (1989) has conceptualised governance as a tool to promote political and economic liberalisation. It stresses, better governance could be practised by reducing corruption which ultimately would be obtained "by strengthening accountability, by encouraging public debate, and by nurturing a free press, fostering grass-roots and non-governmental organisations such as farmer's associations, co-operatives, and women's groups" (p. 6). At this, it understands governance though the lens of power structure. In a booklet named 'Governance and Development', it defines governance as "the manner in which power is exercised in the management of a county's economic and social resources for development" (WB, 1992, 3). While trying to articulate governance as a

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1 a research institution of the United Nations Public Administration Network

2 its meaning is to steer a ship, but used by Plato for a metaphorical sense to steer men.

common understanding, it has bisected governance as ‘the concept’ and ‘the process’. As the concept - governance is the rules of the rulers, within a given set of rules and as the process - “by which authority is conferred on rulers, by which they make the rules, and by which those rules are enforced and modified” (WB, n.d.). Girishankar et al. identifies governance as ‘the rules of the game’, and defines governance as “the exercise of power through a country’s economic, social, and political institutions in which institutions represent the organizational rules and routines, formal laws, and informal norms that together shape the incentives of public policymakers, overseers, and providers of public services” (Girishankar et al., 2002, 271). They consider governance as institutional environment to provide public services.

In its 1997 policy paper, ‘United Nations Development Programme’ (UNDP) defines governance as “the exercise of economic, political and administrative authority to manage a country’s affairs at all levels. It comprises the mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences” (quoted in WB, n.d.). By this kind of approach, UNDP equate governance with participatory democracy. It also stresses that “governance is broader than institutions and includes relations between state and people which provides the mechanisms through which collaboration can be generated across sectors”. Most notably IBE-UNESCO, differentiated concepts of governance and management. It coded governance as “structures and processes that are designed to ensure accountability, transparency, responsiveness, rule of law, stability, equity and inclusiveness, empowerment, and broad-based participation” (IBE-UNESCO, n.d.). UN-Habitat considers governance as “the enabling environment that requires adequate legal frameworks, efficient political, managerial and administrative processes to enable the local government response to the needs of citizens” (UN-Habitat, n.d.).

Asserting the diverse character of governance, like corporate governance, international governance, national governance and local governance, UNESCAP (n.d.) explains governance as “the process of decision-making and the process by which decisions are implemented (or not implemented)” (Para 3). United Nations through all its specialised agencies, funds and programmes, has always focused on ‘Good Governance’ to fulfil the purposes of UN Charter. It enumerates eight

characters of 'Good Governance' as 1) Participation, 2) Rule of Law, 3) Transparency, 4) Responsiveness, 5) Consensus Oriented, 6) Equity and Inclusiveness, 7) Effectiveness and Efficiency, and 8) Accountability (UNESCAP, n.d.). The adjective 'good' emphasizes here, the best part of governance according to the United Nations. Governance here is conceived as *the process of policy formulation and implementation*.

The academic literature on governance is a bit accommodating, diverse and sometimes unconnected. The various theoretical roots of governance encompasses international relation, political science, public administration, institutional economics, organizational studies, development studies, sociology, public affairs management as well as its precursors. For a comprehensive understanding, Stoker (1998) delineates five propositions which aims five aspects of governance:

1. Governance refers to a set of institutions and actors that are drawn from but also beyond government;
2. Governance identifies the blurring of boundaries and responsibilities for tackling social and economic issues;
3. Governance identifies the power dependence involved in the relationships between institutions involved in collective action;
4. Governance is about autonomous self-governing networks of actors; and
5. Governance recognizes the capacity to get things done which does not rest on the power of government to command or use its authority. It sees government as able to use new tools and techniques to steer and guide (p. 18).

With his society-centric approach, Pierre (2000) propounds that governance refers "to sustaining coordination and coherence among a wide variety of actors with different purposes and objectives" (p. 3-4). For Peters and Pierre (2000), governance is more state-centric, and they define it as "changing relationships between State and Society and a growing reliance on less coercive policy instruments". Hirst (2000) asserts governance as "the means by which an activity or ensemble of activities is controlled or directed, such that it delivers an acceptable range of outcomes according to some established standard". British council considers governance as broader notion than government. Terming governance is the decision making process and different meanings to different people, Sharma emphasises, "governance is broader notion than

government whose principal elements include the constitution, legislature, executive and judiciary” (Sharma, 2004, 12). He also added that governance is the interaction between formal institution and civil society. As a transaction-cost economist, Williamson narrated governance structure as “the institutional framework within which the integrity of transaction is decided” (Williamson, 1979). Thus the connotation of governance in academic is diverse in nature.

In past, governments, with their massive legislative and executive power, had exercised the power as the sole authority. The governance pattern of those period had been dominated by the constitutional tradition of their existing political set ups (Hall, 1994). The political spectrum of capitalism and communism had dominated the governance matrix during 20<sup>th</sup> century. At those junctures, it seemed like *a different institution lack of connectivity* with people, was governing people. That conventional assumptions has been challenged and various new forms of governance has been adopted. The changing landscape of governance was the manifestation of changing relation between the state and the citizens. This has negated the exclusiveness of state authority; and the responsibility is being shifted and shared among different public bodies, private bodies and communities. A *citizenship governance* with rights and responsibility became new norm. The linkages of citizens and governance had made ‘communitarianism’ and ‘family values’ to a relevant strand (Stoker, 1998). This also caused the emergence of numerous non-profit organisations and third-party agencies, community enterprises and community based organisations.

Governance identifies different area to be served or to be governed. A government may govern most of areas but may not serve all needy areas. Almost all institutions have governance pattern but the concept is extensively used for the national governments and its subordinate governments and sometimes global governance (Dingwerth & Pattberg, 2012; Dominguez & Flores, 2018; Higgott, 2005; UNDESA, 2014). As Peters and Pierre (2012) opine:

Governance—the process of societal steering and coordination—is as old as government. What has changed, rather, is the role of government in governance... Government is still there, just as governance is an old feature of society. Its role has changed in important aspects... all of that being said, government remains, for the time being, the key player in governance albeit in a slightly different than before (p. 74).

The role and authority of government has shrunk to very extent, still, the government is the conspicuous structure and most legitimate institution of our time. It has the power for taxation and expenditure of taxes; formulation of policies for public and also some extent, for other institutions operated inside the jurisdiction of that government. Thus, government is a major and an important part of governance for managing the society, but still not the whole part of governance.

Stoker (1998) articulates, governance is “the development of governing style” and is developing in such a manner that the boundaries between “public and private sectors have become blurred”. For him, “the essence of governance is its focus on governing mechanisms” which neither explicitly depend on the authority nor sanctions of government (pp. 17-18). When we talk about subordinate governments, it automatically creates a pictures of state governments and local governments. Local governments, whether it is rural local government or urban local government, follow the broad institutional outlines enacted by respected national governments.

In actual picture, national governments do not formulate all the policies of any country. They delegate power to subordinate governments/federal governments, to farms, to corporates, to NGOs and to many other private sectors for formulation and implementation of several policies. These are the grey areas where the arena of governance goes beyond the purview of government. But this do not deter the power of government.

In this section it is understood that national governments are the legitimate institutions and have the authority and power to legislate or to annul policies, and the duty of protection of sovereignty. They formulate and implement public policy at large and also can annul policies of private entities, if they found incongruity. Due to legislative authority, government determines the pattern of governance in any society. Any change either in structure or in political ideology of government lead the cascading effect on governance. Hence, governance may have larger impact area than government; but the real authority and power lies with government. The role of government in governance is quite significance. The next section will confine the discussion on working definition governance for this thesis.



## 2.2.4 Governance: A Working Definition

Governance is a dynamic concept. With the course of time, the concept has been undergoing changes from ancient era till today. Governance has a broader connotation than government. Its constituents are the constitution, legislature, executive and judiciary as well as international laws and institutions. Governance is the manifestation of interaction between these formal institutions and those of civil society. Articulating the concept, Sharma (2004) contends “Governance has no automatic normative connotation. However, typical criteria for assessing governance in a particular context might include the degree of legitimacy, representativeness, popular accountability and efficiency with which public affairs are conducted” (p. 9).

It is observed that institution building is the key to governance. Hence, governance or more precisely *the process* may operate in and by formal institutions like states and corporates, and informal institutions like different networks. Its understanding may more elaborative when it is used as adjectives for public or private, global or local, urban or rural and with many other legitimate institutions.

Most of theories, which believe the concept of governance as a process, are in accordance with ‘the rational choice theory’ which arose out of neoclassical economics (Elster, 2001; Quackenbush, 2004). Later, this view got prominence and broader acceptance when endorsed by various international organisations. It is being understood as the instrument of public affairs management, and the gauge of political development, in a certain existing political environment. Governance can be viewed in a particular structure as *the service delivery process* which in turn means *formulation and implementation of policies for service delivery*.

Thus, governance in its broader approach means, *the process of formulation and implementation of policy*. Conceiving this way, the genuine question arises automatically - which institution formulates and implements the policy?. This, in turn emphasizes the need of recognition of legitimate institution and conducive environment for implementation of policies. Today, in this complex modern society people need different legitimate institutions to get different services. So they need multiple institutions to serve their interest. Though modern society has diversified service delivering institutions, still government is the vital legitimate institution prevailed over other existed institutions. In other words, though governance can exist

independently without government, but in practice it is associated mostly with states or more specifically governments. It implies any change in government will have a major impact on governance pattern and vice versa. We may see this pattern after formation of different governments after general elections held in those respective states.

In a highly politically, socially, economically, and culturally dynamic environment, governance means different things in different contexts. A composite definition of governance would focus on multiple elements rather any particular one. Governance is a process whereby individuals, communities seek to achieve goals; allocating the resources. As Barthwal perceives, “Governance refers to the process whereby elements in society wield power and authority, and influence and enact policies and decisions concerning public life, and economic and social development (Barthwal, 2003, 9). Above understandings about governance illustrates a broader point. In substantiating aforementioned opinions and arguments, and, more precisely as accepted by most of the institutions, *governance is the process of formulation and implementation of policy.*

This section has focused on the operating definitions of governance by different institutions. From very beginning of this thesis, the focus was that the world is increasing urban. Then various sections imparted lights on state, society, individual and its relationship with governance.

### **2.3 Governance and Policy**

Inequality and poverty are not accidents of fate. They are the results of explicit policy debacle and hence implicit governance misfeasance. Governance is not about institutions, political parties, government’s role of controlling and ruling citizens. It is not about maintaining status co or only operating through the existing institutional mechanisms, but to foresee the future of society, make policies and implement those for the upgradation of the society. So, governance is ‘governability’ through policies. Policy making and implementation is thus a major and integral part of governance.

### 2.3.1 Public Policy

Public policy formulation is a dynamic process. Public policy in the opinion of Maheshwari and Maheshwari “cannot be made by one or few individuals... Nor can it be separated from administration. Public policy necessarily involves a of persons and institutions operating in hierarchical order of otherwise such as ministers, civil servants, parliamentarians, politicians, pressure groups, professionals etc” (Maheshwari & Maheswari, 1987). Anderson (A. James, 2010) in his work ‘Public Policy Making’, identified five stages of public policy making: 1) Agenda setting; 2) Policy formulation; 3) decision making; 4) implementation; and 5) Evaluation. He categorised public policies into five typology on the basis of their effects on society and the relationship among those involved in their formation: 1) Constituent policies; 2) Distributive Policies; 3) Regulatory Policies; 4) Self-regulatory Policies; and 5) Redistributive policies.

Traditionally, the domain of public policy concentrates on domestic policies such as food, housing, electricity, job, economic growth, industrial policy, environment policy etc. With emergence of transnational problems - environmental pollution, terrorism, human trafficking, and energy crisis - public policy became global (Dye & Dye, 1992; Goodin, Rein, & Moran, 2008; Reinicke, 1997). There is a growing influence of supranational and international policy literature on national and sub-national governance.

Depending on day to day challenges for governance and temporal dimensions, the horizon of public policy may distinguishes as short term policy or long term policy. For example budgets in different countries are short term (one year) policy, but five year plans are long term policy. Based on spatial perspective it can be understood as International (Global) policy, National policy and local policy. The instance is like UN formulates Millennium Development Goals (MDGs), Sustainable development goals (SDGs) to end poverty, to protect the planet, for peace and prosperity of all. The goals of these policies are termed as global goals. Because, these have been developed through an unprecedented consultative process that brought national governments and millions of citizens from across the globe together to negotiate and adopt the ambitious agenda. At international level global policies are formed by international institutions and regimes such as United Nations, WHO, UNESCO and

many other international organisation. At national level each state is responsible for policy formulation and implementation. Sometimes national policies are formed keeping in mind the international policies. For example, after 2012 United Nations +20 conference, Russia has outlines the framework of sustainable development policy based on economic, social and environmental aspect and prepared ‘Long-term Socio-economic Development of Russian Federation’ up to 2020 (UNDP, 2013). Different countries lay down policies according to their national interest. The broad outline on which countries lay down policy is foreign policy and national policy. Inside a country different region constitute their own policies. At local level, local governments prepare policies to tackle local problems and to develop local situation. At local level if it is rural area the policy is rural local policy and if it is urban area then the policy is urban local policy document.

Public policies are guiding principles throughout the history of governments and government decisions for rational outcomes. Till now policies play a key role in governance for mitigation of day to day problem of citizens and for their safety, security and prosperity.

### **2.3.2 Urban Public Policy**

Urban public policy is the road map for building prosperous, resilient safe, humane cities. As cities go global, so the urban public policy. Broader framework is global public policy. Then it is contextualised in national context. At the pragmatic level, it is contextualised for the respective city. It is always national government and especially local governments implement policies whether it is ‘national urban policy’ or ‘global urban policy’. Urban policies are designed to work in the areas of critical importance of city dwellers as well as of the whole planet. Some major global urban policies related to waste and environment are analysed below.

SDG is a blueprint for peace and prosperity for people and planet through partnership. There are 5P themes – people, planet, prosperity, peace and partnership – on which the SDG works; and to protect the planet from environmental catastrophe, the policy document determines, “to protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural

resources and taking urgent action on climate change, so that it can support the needs of the present and future generations” (UN, 2015).

United Nations Conference on the Human Environment (UNCHE) or the Stockholm Conference was the first major conference on international environmental issue and a major turn the world has taken to preserve and enhance human environment. United Nations Environment Programme (UNEP) - coordinating body for the United Nations’ environmental activities - is created after this conference and promotes the coherent implementation of the environmental dimension of sustainable development. It proclaims “Man is both creature and moulder of his environment, which gives him physical sustenance and affords him the opportunity for intellectual, moral, social and spiritual growth” (UN, 1972, para. 2). It is not a personal issue of any or many rather it affects well-being of everyone; it deters economic development throughout the world. To achieve better environmental future UNCHE hopes “responsibility by citizens and communities and by enterprises and institutions at every level, all sharing equitably in common efforts” (para. 8). it advocates for greater responsibility of local and national governments for large-scale environmental policy and action within their jurisdictions. Since regional environmental problem is actually affects the global environment, international cooperation is necessary in order to provide support to the countries where the environmental problem happens. UNCHE emphasizes “The natural resources of the earth, including the air, water, land, flora and fauna and especially representative samples of natural ecosystems, must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate” (para. 12) and “States shall take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea” (para. 17).

Sustainable Development (SD) – a visionary development paradigm – needs to encompass economic development, social equity, and environmental protection (Drexhage & Murphy, 2010). Everyone in this world talks passionately about sustainable development, but, as noticed by Drexhage and Murphy, do not take serious action on ground and hence there is a dire need of structural change to move from talk to action. Instead of the declining development model of liberalisation and

globalisation, they insist upon 'sustainable development paradigm' which would foster "equity, poverty alleviation, reducing resource use, and integrating economic, environmental, and social issues in decision making" (p.3).

By its definition, -Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs - it fosters intergenerational equity (WCED, 1987, 54). It is the integration of economy, ecology, equity and polity (P. (Paul W. James, 2015; Robert, Parris, & Leiserowitz, 2005). It contains, according to WCED, two principles: "The concept of 'needs', in particular, the essential needs of the world's poor, to which overriding priority should be given; and The idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs" (p. 54).

Rio declaration on Environment and Development, which build upon Declaration of the United Nations Conference on the Human Environment, adopted at Stockholm on 16 June 1972, urges for "new levels of co-operation among States, key sectors of societies and people" and for "international agreements which respect the interests of all and protect the integrity of the global environmental and developmental system" and also recognises the nature of earth as integral and interdependent.

Agenda 21, the Rio Declaration on Environment and Development – a non-binding action plan of United Nations; the resulting policy document of UNCED 1992; Paris Agreement – the resulting document of 21<sup>st</sup> yearly session of the Conference of the Parties (COP) to the 1992 United Nations Framework Convention on Climate Change (UNFCCC); and the 11th session of the Meeting of the Parties (CMP) to the 1997; Kyoto Protocol; Convention on Long-Range Transboundary Air Pollution, 1979; Vienna Convention for the Protection of the Ozone Layer, 1985; Montreal Protocol on Substances that Deplete the Ozone Layer, 1987; Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 1989; Convention on Environmental Impact Assessment in a Transboundary Context, 1991; Convention on the Protection and Use of Transboundary Watercourses and International Lakes, 1992; Convention on the Transboundary Effects of Industrial Accidents, 1992; United Nations Framework Convention on Climate Change, 1992;

Kyoto Protocol to the United Nations Framework Convention on Climate Change, 1997; Doha Amendment to the Kyoto Protocol, 2012; Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, 1998; Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, 1998; Stockholm Convention on Persistent Organic Pollutants, 2001; Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes and to the 1992 Convention on the Transboundary Effects of Industrial Accidents, 2003; Minamata Convention on Mercury, 2013 are major united nations treaties and international policy directions to reduce waste from air, water and to protect the environment (United Nations, n.d.).

One of the most serious problems now facing the planet is that associated with historical patterns of unsustainable consumption, and production, particularly in the industrialized countries. Many time the rich nations who are also high CO<sub>2</sub> producers, discourage as well as oppose environment protection treaties. For example, United States, Malaysia, and Italy are non-ratifying countries to Stockholm Convention on Persistent Organic Pollutants (UN Environment, 2001); United States United States has withdrawn from the historic Paris Agreement. This is of course an extinctive threat to environment.

Urban policy challenges are multidimensional, the most visible and enduring face of which is the environmental pollution. Environmental degradation has a multidimensional nature of which mismanagement of waste is a severe concern.

The section has vividly discussed urban public policy in global context. The next section aims to enhance the nodes of understanding (to be discussed) of urban governance. The next section looks at the concept of urban governance, its evolution, its relation with local governance, and some of current trends of urban governance.

## **2.4 Urban Governance: An Understanding**

Through undertaking a comprehensive review of historical and theoretical literature on urban governance, five key themes to be kept in mind:

1. The composition of the world population
2. The evolution of urban governance
3. Different approaches to urban governance
4. The role of local governments in urban governance
5. Global governance and its role in redefining urban governance

More than 55% of humanity live in urban agglomerations. The percentage of urban people is on rise, and is rising on the bedrock of lucrative neo-liberal policies. United Nations projects 68% of world population will be urban by 2050 (UNDESA, 2018s). Urban governance in 21<sup>st</sup> century is a multi-sector multi-stakeholder and multi-level exercise. With the increase of urban population, governance arrangement is facing severe challenges. For effective resolution of problems, cities needs to better institutional framework and robust urban policies. Habitat III issue paper on urban governance (2015b) describes urban governance as “... the software that enables the urban hardware to function, the enabling environment requiring the adequate legal frameworks, efficient political, managerial and administrative processes, as well as strong and capable local institutions able to respond to the citizen’s needs” (p. 1).

More than 828 million people are living in slum and the number is rising, three percent of the earth’s land is occupied by urban area but 60-80% energy consumption and 75% of carbon emission is produced by cities. As by 2030 almost 60% people will migrate to urban area. United Nations recognised the severity of problems for urban governance and detected challenges like job creation, congestion, shortage of drinking water, adequate housing, transporting, basic services. Among 17 global goals, the 11th goal “Make cities inclusive, safe, resilient and sustainable”, is a goal of Sustainable Development Goal, adopted by 193 countries (UN, 2015). To fulfil the role as driver of Sustainable Development Goal, Habitat III forged a global urban agenda called as ‘New Urban Agenda’. Thus all the vectors point that the future of the world is an urban world, so we have to prepare for the future urban challenges (UN-Habitat, 2017). The genesis of urbanisation inform about the human need and compulsion of human evolution. The social, economic progress, environment protection can be better understood with the history of urbanisation. To understand governance in historical context the next section discusses the evolution of urban governance politically, socially and structurally.



## 2.5 Evolution of Urban Governance

Urban governance had evolved when rural communities grow to form cities, or urban centres in the form of dense permanent settlements. Cities are ancient phenomenon predates to the now dominant nation-state. Historian Lewis Mumford (1956) ascertains that permanent village settlements had established during Neolithic times, but for collective performances of magical ceremonies people used to go caves, and it predates to an earlier period to that of village settlement. To know the evolution of urban governance it is inevitable to know the evolution of urban centres (cities) of prehistory (Stone Age, Bronze Age, and Iron Age).

### 2.5.1 Stone Age

Childe (1950), describing the evolution of urban centres, told “The concept of ‘city’ is notoriously hard to define” (p. 3). Jefferson (1931) is of view that when hunter-gatherers domesticated crops, animals, and the dichotomy of urban and rural, city and country, were one thing, not two things. Because ancestral form of city was the village, and was an economic hub, brought forth by new agricultural economy. Arguing the inseparability of village and city, Mumford (1956) holds:

...whole communities, living in caves and hollowed-out walls of rock, have survived in widely scattered areas down to the present. The outline of the city as both an outward form and an inward pattern of life might be found in such ancient assemblages. Whatever the aboriginal impetus, the tendency toward formal cohabitation and fixed residence gave rise, in Neolithic times, to the ancestral form of the city: the village, a collective utility brought forth by the new agricultural economy (n.d.).

Childe describes the ‘agricultural revolution’ or the transition of hunter-gatherers during the Neolithic period, from a lifestyle of hunting and gathering to agriculture and permanent settlement, as neolithic revolution. He called it revolution as to him, it transformed the human economy and made the human control over his own food. There were settlements predates to urban centres, but all the settlements were not necessarily cities. Thus, during stone age more specifically during neolithic period, the pastoral economy replaced by new agricultural economy and villages became

economic centres and densely populated centres which later came to be known as “cities”. It is believed less prosperous, tribes and villages attracted towards prosperous villages and attached themselves to the successful settlements, and the shape of city took place (Mark, 2014, 2018).

The Sindhu Saraswati (Indus) civilisation had flourished along the Saraswati river (now Ghaggar-Hakra River), and the ancient Mesopotamia had flourished in the fertile crescent between Tigris and the Euphrates rivers. These were the ancient urban civilisations - the world has recorded till now (Coppa et al., 2006; Feuerstein, Kak, & Frawley, 2005; Harris, 1996; Mani, 2005; J. McIntosh, 2008; Modelski, 2004; Possehl, 2002; Rao, Sahu, Sahu, Shastry, & Diwan, 2005; Reba, Reitsma, & Seto, 2016; Sharif & Thapar, 1992). These are often referred as ‘The Cradle of Civilisation’ as these were collection of city-states, unlike unified civilisation of Egypt, Greece. Notable cities of stone age were Ain Ghazal, Beidha, Catalhoyuk, Chirokoitia, Jericho, Lepenski Vir, Nea Nikomedeia, Okoliste, Vinca-Belo Brdo, Sesklo, Dobrovody, Fedorovka, Mehrgarh, Maydanets, Nebelivka, Taliankin, Tell Brak, and Uruk (Modelski, 2002; Reba et al., 2016; Tharoor, 2016; Winkless, 2017).

The growth of sedentary farming communities in the Neolithic era had witnessed the sudden surge of invention and social complexity, and yielded surplus food. Occupational differentiation had emerged; political and religious leaders as oligarchs had arisen (“World Civilizations”, n.d.). Somehow, the urban governance of neolithic period was primarily the governance of the agricultural cities (villages) due to absence of bigger non-agricultural urban centres. The governance was the affair of the whole community and primarily for the protection of surplus food stored inside their cities (villages).

### **2.5.2 Bronze Age**

It was the Bronze Age which had witnessed the rise and expansion of cities. The meaning and nature of urban centres had changed during this period. Childe and Daniel expressed rightly the changing nature of urbanisation as ‘Urban Revolution’ (Childe & Daniel, 1951). There is no particular year of urban revolution, rather this was an continuous and evolutionary process lasting from neolithic period. Small villages became trade centres at this time. Trade, rather agriculture was the primary

activity of this period. Economic diversification occurred with hunters, fishers, pastoralists, settled farmers and some other tribal and they had chosen different occupation. People gathered the knowledge of mechanics, metallurgy, architecture, and also were experts in scientific knowledge like topography, geology, astronomy, chemistry, zoology and various scientific knowledge. As a result specialised manufacture and external trade were widespread. Frequent trades among different civilisations of Sindhu (Indus), Mesopotamia and Nile, were prevalent. There was fall of the agrarian empire and emergence of different and new economic structure. The simple agricultural society, whose primary work was food production, were diversified into occupational differentiation and turned into a society with new classes of priests, princes, scribes, officials, craftsmen, soldiers and other labour. Childe (1950) presented ten point model about the possible reason of urban governance revolution.

- 1) In point of size the first cities must have been more extensive and more densely populated than any previous settlements.
- 2) In composition and function the urban population already differed from that of any village. ... most citizens were still also peasants, harvesting the lands and waters adjacent to city. But all cities must have accommodated in addition classes who did not themselves procure their own food by agriculture, stock-breeding, fishing or collecting- full-time specialist craftsmen, transport workers, merchants, officials and priests.
- 3) Each primary producer paid over the tiny surplus he could wring from the soil with his still very limited technical equipment as tithe or tax to an imaginary deity or a divine king who thus concentrated the surplus.
- 4) Truly monumental public buildings not only distinguish each known city from any village but also symbolise the concentration of the social surplus.
- 5) Naturally priests, civil and military leaders and officials absorbed a major share of the concentrated surplus and thus formed a “ruling class”.
- 6) They were in fact compelled to invent systems of recording and exact, but practically useful, sciences.

- 7) The invention of writing- or shall we say the invention of scripts enabled the leisured clerks to proceed to the elaboration of exact and predictive sciences- arithmetic, geometry and astronomy.
- 8) Other specialist, supported by concentrated social surplus, gave a new direction to artistic expression.
- 9) Regular “foreign” trade over quite long distances.
- 10) A State organisation based now on residence rather than kinship.

Urban centre, what we now understand as non-agricultural and trade as its core, was emerged during this Bronze Age. The cities of Bronze Age were the fore fathers of what we called now a days modern cities.

Cities during early Bronze Age were primarily ritual cities. The governance of city were also ritual in nature. For example almost all cities in ancient Mesopotamia had temples for ceremonial, commercial, and religious activities. Priests were the rulers were responsible for governance of the city. These temples were the cult centres. City governance was the affairs of dictating the law according to religious precepts. Gradually, the military classes, who were not the primary producers, taken over the government and formation of modern city state have started. The urban governance of later Bronze Age was city-state governance. Kings were responsible for the governance but still followed rituals, and rituals were dominated as governance dictum (Childe, 2015; Childe & Daniel, 1951; Wadlow, 2016).

### **2.5.3 Iron Age**

The discovery of iron was a major breakthrough of human civilisation. It helped the use of iron tools and weapons and that led to formation of large territorial states. Cities became proper markets; artisans and merchants organised into guilds. This era was the era of empires as the governance was under the control of the emperors of large geographical area. In Bharat, governance of this period was undertaken by Janapadas (great kingdoms) and some scholars depict this era as ‘Second Urbanisation’ of Bharat (Aggarwal, n.d.; India DeTaled, 2018; V. K. Thakur, 1981). Due to massive use of iron weapons human controlled its own safety, like during neolithic revolution human controlled his own food. All the major city-states, from

Asia to Europe to Africa, have emerged during this era. The urban governance were primarily military governance with king as the head of state and governance. Cities became power clusters in the process of state formation. Because discovery of iron weapons also made some emperor as ambitious to be the world conqueror. This created a security threat to other empires and its population. Thus a powerful person needed to be at helm of security affairs and they were known as kings (Childe, 2015; Wadlow, 2016).

#### **2.5.4 Urban Governance till Modern Nation-States**

Various forms of state were existed before the Ancient Greek empire. It is believed that several important political innovations of classical antiquity came from the 'Greek City-States' and the 'Roman Republic'. Somehow the free population got democratic right and citizenship right by Greek city states. Urban governance was democratic governance in Greece before they were attacked and defeated. Since the state forms were primarily city-states, the urban governance and the governance of state were same and concentrated only on urban (city) governance (Hall, 1994; L. Mumford, 1956; Winkless, 2017).

It is also crucial to note that urbanization was never a linear process. Numerous historical events either natural disasters or artificial (human) disasters have influenced the pattern of urbanisation and urban governance. Human conflicts like wars, invasions, colonialism etc. affected urban governance severely. Natural disasters like flood, drought, and earthquake etc. either wiped out the whole urban centres or make the population to migrate another habitable place (Reba et al., 2016).

The urban population and the urban area were not uniform across all regions and also in all time. Chandler (1987) and Modelski (2002, 2004) employed diverse sets of variables to determine the city population. 'United Nations World Urbanization Prospects' determines different set of variables for different countries. Reba et al. (2016) holds:

“...the definition of urban and urban population varies by country. Some countries define an urban area using administrative or political boundaries. Other countries define an urban area as a place that exhibits certain characteristics, such as energy infrastructure or by characteristics of their populations, such as population size or population density. Norway defines

urban as localities with 200 inhabitants. In contrast, Japan defines urban as places with at least 50,000 inhabitants. Even within a single country, definitions of urban can vary over time. For example, the definition of city and urban has changed many times in China during the 20th century, with earlier definitions based on designation of statutory cities and towns. More recent definitions of urban in China have focused on population densities and the presence of urban infrastructure” (p. 4).

What this segment narrated is the nature and scope of governance has changed due to dynamic patterns of socio-cultural developments throughout history. In the similar pattern, the nature of urban governance was never immune from this development. The contemporary explanation for governance is the process of formulation and implementation of policy. So for convenience, we can define urban governance as “*the process of formulation and implementation of urban policy*” (as defined in the section of ‘working definition of governance’). Urban policy here refers to national policies, international policies, state level policies or city level policies for resilient and safe urban settlements. Urban governance is more complex and more abruptness than national governments due to involvement of a web of institutional, economic, political and social constraints. As urban governance is a complex system, process regarding urban policy became increasingly complex. As the above segment focused on evolution, it is clear that with the course of time there was a proliferation of ‘urban governance patterns’. To understand the urban policy dimensions, next sections illustrate some contemporary modes of governance, orders of governance towards urban governance.

## **2.6 Modes of governance**

The intense debate of ‘Old Public Administration’ and ‘New Public Management’ gave birth the concept of ‘Modes of Governance’ in Public Administration phraseology for effective social coordination (Robinson, 2015; Treib, Bähr, & Falkner, 2007). It is very significant as urban public policy making rests on recourse to the administrative set up. Different scholars have suggested different alternative modes through a wide range of social science literature.

Traditionally, two prominent approaches have been adopted by most of the social scientists for public policy. The first and famous approach is ‘hierarchies, markets and something else’ approach. This approach has been adopted from economics, sociology and organisational theory. The second approach is called ‘cultural theory’

approach which has been derived from social anthropology. Both the approaches propose multiple modes of governance. For Hood, the third mode is egalitarian approach and for Stoker, it is communitarianism (Tenbensen, 2005). Professionalism is identified as the third mode by many researchers (Tuohy, 1999).

Till the analytical framework and the language of transaction cost institutional economics of Williamson gained traction, firms and markets, as identified by Ronald Coase, were the principal ways of organizing production activities (Williamson, 1973, 1975, 1979). Powell (1990), who focused on local and contextual mechanism of social and economic coordination, advocated network analysis as the mode of governance, alternative to the markets and hierarchies. Networks, for him, are “the new forms of exchange that have recently emerged of age-old practices” (p. 301). Behaviours, interests of individual actors are shaped by the interactions of markets, hierarchies and networks. He further narrates:

In network allocation, individuals exist not by themselves, but in relation to other units. These relationship take considerable effort to establish and sustain, thus they constrain both partners ability to adopt to changing circumstances. As network evolve, it became more economically sensible to exercise voice rather than exit. Benefit and burdens come to be shared. Expectations are not frozen, but changes as circumstances dictate. A mutual orientation – knowledge which the parties assume each has about other and upon which they draw in communication and problem solving – is established. In short, complementarity and accommodation are the cornerstones of successful production networks. ... the entangled strings of reputation, friendship, interdependence, altruism became integral part of the relationship (p. 304).

Thompson describe network as the social arrangement which “involve a kind of equality of membership, where joint responsibility holds” (Thompson, 2003). Marsh & Rhodes (1992), Thompson (2003), Stoker (2002) etc. have characterise it as looseness as well as tightness.

The advent of network in public policy was due to the change in relationship among the state, the community and the individual. The strict hierarchical state order shifted the public service system to market under the neo-liberal policy discourse, and then the whole system shifted towards network. local communities, local participation and community participation became dominant paradigm for policy development and management. This, in the language of Tenbensen (2005), “a shift from conceiving of citizens and communities as ‘uninterested public’ who are engaged in decision

making through processes of random selection to more ‘embedded’ notions of community in which social capital, capacity and organic community linkages came to the fore” (p. 277). This enable the local community and the public have the say through community organisation. These arrangements are termed as networks as these community organisations are the face of the communities rather randomly selected individuals (Tenbense, 2005).

Emphasizing ‘network’ as the alternative mode (third mode) of governance, Rhodes (2000) holds that:

These networks are characterized, first, by interdependence between organizations. Governance is broader than government, covering non-state actors . . . Second, there are continuing interactions between network members, caused by the need to exchange resources and negotiate shared purposes. Third, these interactions are game-like, rooted in trust and regulated by rules of the game negotiated and agreed by network participants. Finally, the networks have a significant degree of autonomy from the state. Networks are not accountable to the state; they are self-organizing (p. 61).

Inasmuch as the literature on modes of governance is diverse, and because of the fact that, the proliferation (networks, professionalism, egalitarianism, communitarianism) of the level of third modes of governance has created confusion to the discourse. Tenbense (2005) proposes two alternative modes to hierarchies and markets, namely ‘provider-based governance’ and ‘community governance’. Thus, he told:

Community governance is primarily founded on identity, which can be based on geography, culture, ethnicity, gender, sexual orientation or simply a common recreational interest. The emphasis is on community ... is closely connected to long-standing themes of subsidiarity and local control over localized problems (p. 279).

He employs ‘suit’s metaphor’ of card games for modes of governance. For him, spades represents “hierarchical authority and scientific and legal objectivity”, diamonds represents ‘market governance’, clubs represents “governance based on the practices of providers and professionals” and hearts represents “governance based on community values” (p. 281). He pays heed more to the types of power and knowledge resources which he termed useful in the analysis of steering public management rather achievement of governance. He argues different modes of governance depends on “different constellation of power and knowledge” and linked politics and knowledge and power to different modes of governance.



Kooiman and Jentofot (2009) enumerate three modes of governance at structural level. First one is hierarchical governance; the second one is self-governance; and the third one is co-governance. The characteristics of hierarchical governance, they assume, is ‘the interaction between the state and its citizens’, which also prevalent in market and also in civil society. They also tell that in recent years “perceptions of hierarchical governance have become redefined, for example, the commanding state has been transformed into a regulatory one, delivering state activities into enabling ones and benevolence into activating roles” (p. 820). Self-governance, for them, “the situation in which actors take care of themselves, outside the purview of government” (p. 821). It is not created by government and they contend that “without sustaining a capacity for self-governance, societal governance is an impossible task”. The third typology they refer to co-governance which they narrate as “societal parties join hands with a common purpose in mind, and stake their identity and autonomy in the process”; public-private partnerships, networks are the depictions (p. 821).

The modes of governance are many and can be used as heuristic device to understand and control the complex governance pattern. It should be the combinations of different modes, as Rhodes (1997) suggests, “it’s the mix that matters”. He suggest to focus more on “attempts to steer” in the direction of multiple modes of governance rather than achievement of particular type of governance. There must be right set of steering direction. It will definitely help in understanding the policy formulation for urban agglomerate.

## **2.7 Order of governance**

Kooiman and Jentofot (2009) design three concentric circles as orders of governance, namely 1) First Order, 2) Second Order and 3) Meta-governance. The first order governance deals with day-to-day affairs. It resulted due to the interaction among “the people and their organizations interact in order to solve societal problems and create opportunities” (p. 822). It identifies the problem and pay attention on its solution. Second order governance is the larger ring of the concentric circle within which first order governance takes place. It focuses on institutional set up, rules, regulations, laws and norms. They highlight that “Institutions provide the framework for first-order governance and constitute the meeting ground of those governed and those

governing” (p. 822). Meta-governance is centre of those concentric circles which binds entire governance system.

Meta-governance, as argued by them, is ‘the governance of governance’. They argue, it occurs “when governance system values, norms and principles are discussed, formulated and applied in governing processes” (p. 819). They paint the governance with a socio-political colour. In their view, it is the integral part of governance and its source can be driven from religious thought and social philosophy like concept of justice.

They discuss about ‘interactive governance’ which refer to “the whole of interactions instigated to solve societal problems and to create societal opportunities; including the formulation and application of principles guiding those interactions and care for institutions that enable or control them” (p. 820). They propose that:

Societies are made up of a large numbers of interacting governance actors, who are constrained or enabled in their actions by structures. Actors, in this perspective, are any social unit possessing agency or power of action. These include individuals, associations, leaders, firms, departments, international bodies, and so on. Structures refer to the frameworks within which actors operate, which limits or expands their action potentials and which they either will or must take into account. These include culture, law, agreements, material and technical possibilities, and the many other dimensions which constitute the world we live in (p. 820).

Governance should and must strike balance between contextual and universal principles. Different social practices and cultural values leads the possibility of difference in governance principles. Those involved in governance should be sensitive to those differences. Contextual and universal principles may fall in the lines of conflict. There are never any easy ways to how to resolve conflicts. (p. 834).

Most of the countries have adopted ‘democratic governance’ as the mode of national governance. Urban governance was/is part of national governance. This is the reason everywhere in democratic world, the mode of urban governance is democratic in nature. Peters and Pierre (2012) distinguished urban governance and national governance as the role of formal political institutions and their leaders at the urban level and at national level. The next section makes an effort to comprehend the relationship among the actors involve in urban governance, through the prism of ‘Urban Regime Theory’.

## 2.8 Urban Regime Theory

Urban Regime Theory is an approach which seeks to explain the relationship among elected representative and private sector, and of view that private actors influence the decision of elected representative. Urban Regime describes local urban political system. Stone (1993) says, it is not so easy to capture the governance capacity through electoral process. Rather, it is created and maintained by “bringing together coalition partners with appropriate resources, nongovernmental as well as governmental” (p. 15). He highlighted that the governance of city is a Herculean task for local authorities alone. They cannot address severe problems such as infrastructural Modernisation, public service delivery, implementation of welfare schemes, the city is reeling under, by their insufficient institutional capacity. To Stone, and also argued “If a governing coalition is to be viable, it must be able to mobilize resources commensurate with its main policy agenda” (p. 15). Mossberger and Stoker (2001) opine that “Regime analysis views power as fragmented and regimes as the collaborative arrangements through which local governments and private actors assemble the capacity to govern” (p. 812). Pierre (2014) citing Stone, asserts “Processes of economic structural change that can have a major impact on the city are beyond the realm of control of local authorities. ...while the city controls procedural and legal resources, political, and institutional fragmentation frequently obstructs coordinated action”. The core argument of this theory is since government authority is inadequate and do not guaranty to overcome the constraints, and governance requires more than the capture of elected office. It is necessary to go beyond government coalition and interdependence with various social interest is needed (Stone, 1993).

Urban Regime Theory, after the works of Fainstein (1983) and Elkin (1987) has been influential in U.S.A. for understanding urban politics and policy, and became dominant paradigm after Clarence Stone’s “Regime politics: Governing Atlanta” in 1989. This theory as a tool has been used to explain the various interests of women, African-American, lesbians and gays, neighbourhoods, black middle class, obscenity policy, urban school reform etc. are incorporated into governing coalition (Mossberger & Stoker, 2001; Stone, 1989).

To match resources with proposed agenda in case of policy change, and for use the appropriate body of non-governmental resources, Stone (1993) proposed four types of regimes.

### **2.8.1 Maintenance Regimes (Caretaker Regime)**

This regime is not in favour to introduce any change to established social and economic practice. Therefore, there is no extensive mobilisation for private resources and no behavioural change persists. Motivational demands are always minimal. Tax levels are kept at lower level. This regime only provides routine services and focuses on periodic electoral approval (Clarence Nathan Stone, 1989).

Though Maintenance Regimes do not introduce any significant change, and kept tax levels at lower level which is popular, Stone contends these regimes are not prevalent. Because few demands leads to small reward. For nongovernment actors the situation is like ‘a state of decline’, and for public officials it is opportunities to make a mark on the world and names for themselves.

### **2.8.2 Development Regimes (Corporate Regime)**

Stone compares Development regime as Lee’s ‘Coalition in New Heaven’. This regime focuses the use of land in order to promote growth and to counter decline. It seeks private investment for public action. This involves change and disruption and development projects often entangle with controversy. Opposition mounds pressure on government and public officials who support development project are blamed. There is no imposition of motivational demand on mass public and a coordination is established between institutional elites, and it is difficult to frame a shared vision. Elected officials face the risk of popular disapproval due to large development projects, sometimes lead to electoral defeat (Clarence Nathan Stone, 1989).

### **2.8.3 Middle Class Progressive Regime**

Progressive regime encourages development activity but monitors the actions of institutional elites. It focuses on environmental protection, affordable housing,

historic preservation, affirmative action, historic preservation, spend on various social schemes. Government-Business relationship is a mix of coercion and flexibility. On one hand there is prevalence of strict rules and restrictions and on other hand private actors have the option to disinvestment. There are also instances of government-non business investor coalition for development projects. For example government-Mahila Mandal coalition, government- self-help group coalition or government – trade union coalition for development projects (Clarence Nathan Stone, 1989). Governance for this regime is a difficult task as this has to make proper coordination institutional elites and also need active popular support for development task.

#### **2.8.4 Regimes Devoted to Lower Class Opportunity Expansion**

The advocacy of the use of “opportunity expansion” rather “redistribution” because for Stone, programmes need not zero as opposite to redistribution. This regimes focus on education, job training, transportation access to all, provide opportunity for entrepreneurship, affordable housing. It don’t conceive non-elites as claimants of service rather expands opportunity through social investment (Clarence Nathan Stone, 1989).

Though development may give rise to controversy, Stone asserts, it provides abundance of opportunities, jobs contracts, fiscal surplus, fees, new schools, parks, theatres. This also manages conflicts efficiently.

#### **2.8.5 Critical Analysis of Regime Theory**

The usefulness of a theory, according to Waltz, is judged by explanatory and predictive capability (Kenneth N. Waltz, 1979). Dowding et al. (1999) considers regime theory as a concept or a model rather than a theory because of its inability of explanation or prediction in formation, maintenance, or change of regimes. The connotation of urban regime is derived from the regime theory of international relation (Krasner, 1983).

Assessment for urban regimes concepts as to Mossberger and Stoker (2001), shows inconsistency in conceptualisation. The problem lies with reliability and validity, and absence of common methodology for measurement for cross-national comparison.

Sartori (1991) demonstrated four difficulties in comparison as parochialism, misclassification, degreeism, and concept stretching. Urban regime concept is incapable of overcoming these pitfalls. The inadequacy of regime concept is without proper meaning the concept is used. The use of bureaucratic regime, employment regime, performance regime leads the non-relevancy of the original meaning of the concept.

In another study Bailey argues, regime framework cannot explain urban political issues as it is more concerned on economics. He cited the politics of identity as an major thrust for city governance and regime framework is not suffice to handle this. He discarded the concept citing that urban regime concept can't explain all urban phenomena and no necessity is required to stretch the concept to accommodate. Pierre (2005) encapsulates, urban regime is the abstraction of U.S. urban political economy. In a similar fashion DiGaetano and Lawless (1999) opine that 'social production model' has inherent American bias because American local government institutions are not independent in terms of finance. They are dependent on the private sector for critical resources.

The section has detailed the relation among the stakeholders involved in urban governance through the prism of Regime Theory. Further, comparative approach to urban governance shows the need to learn urban governance pattern from different national and sub-national context, to understand the complex dimensions of urban governance.

## **2.9 Comparative Urban Governance Approach**

Like 'comparative political theory', 'comparative urban governance approach' advocates empirical approach based on comparative method as main methodological tool to understand the urban dynamics (DiGaetano & Strom, 2003). Comparing is the method of learning from other's experience. Whether cross-national or cross-cultural or cross-sectorial study, comparative study leads the way for reforms in respective area. Unlike urban regime theory, which is considered as abstraction of political economy of American cities, comparative urban governance endorses cross-cultural, cross-national and conceptualise the 'heterogeneity of actors' in an urban political setting. Pierre (2005) claims comparison is the best research strategy "of controlling

for contextual variables and for uncovering causal patterns of explanation”. Further he affirms “For all their brilliance, single-case studies generate at best hypotheses about such causal patterns; comparative research enables one to take the analysis one step further toward scientific explanation” (p.449). In a stark contrast Sartori (1991) argues “A field defined by its method – comparing – cannot prosper without a core method” (p. 255). He asserts that in 1960’s most significant works were being done in the field of comparative study but it failed to uphold its dominance and shows mere disappointment in academic discourse. Comparative Urban Governance, not only focuses a significant degree of centrality for political institutions as a variable, for coordination among diverse resourceful actors in pursuit of collectively approved policies, but also has normative and institutional dimensions, which upholds the norms, values, institutions, political objectives and policy outcomes as divergent variables.

As the world becoming more democratic, there is increasingly demand for decentralisation in urban governance approach. The top-down approaches are being losing its charm and local governance in urban context is becoming more popular. The next sections discuss shades of urban governance in local governance dimension.

## **2.10 Urban Local Governance Approach**

The trajectory of Urban Governance Theory in academic discipline has got prominence over the past couple of decades. The theory is evolving and its centrality, most of case is local political and administrative institutions (Pierre, 2014). The role of institutions is coordinating the local social actors and wide variety of agencies. The power is contextualised rather centralised. Services are produced and delivered by a large number of actors and public actors are but one category.

Local government is the lowest tier of administration of any national government. In rural areas it is called rural local government and in urban areas, it is called urban local government. To provide a lots of services to citizen, national, state and urban governments are populated by service delivery departments, but efficiency has not appeared. Authorities could not manage local problems, could not solve local problems and even could not understand local problem with their top down approach. This resulted the shifting of responsibility for subordinate legitimate government and

led the emergence of legitimate local governance. So, the role of local government is growing and the demand for more autonomy is growing day by day.

### **2.10.1 Urban Local Governance: The Decentralisation of Urban Governance**

Local Government is the decentralisation of government. This is a macro-micro linkage of governments. Supporting the idea of local governments as key implementation institutions, World Bank (1992) emphasized that decentralisation would foster significant improvements in efficiency and effectiveness as it will reduce the overburdening of central government functions and will foster participation and decision making process at lower levels of government. Cautioning the negative impact of radical decentralisation, it also opines:

If not carefully managed, however, decentralization can lead to a deterioration in the use and control of resources, especially in the short term. National goals can be seriously distorted by local governments, and scarce resources can be diverted to poor uses. Moreover, radical decentralization can seriously weaken the capacity of the central government to manage the economy through fiscal and monetary means (p. 21).

UH Habitat emphasizes, “Strong and capable local governments are the key levers to ensure inclusive and sustainable urban development, accountable and transparent city management, and a dynamic multi-stakeholder engagement” (UN-Habitat, para 2). UN-Habitat (2016b) advocates the need of localising the Sustainable Development Goals and prepares road map for “... local and regional governments and their associations to implement and monitor the SDGs and to influence national policy-making with a view to creating an enabling environment for action at local and regional level” (p.3).

With the rise of urban agglomerates, they subsumes existing local governments within them. In this globalised world various kinds of actors have the upper hand in urban governance, but four important institutional bases are seen everywhere: private business, local (elected) government, higher level governments, and the bureaucracy. Resources is not concentrated in the hands of government only. Studies of urban governance thus focus on how coalitions of these kinds of actors augment formal hierarchical decision making structures with informal arrangements for the purpose of policy innovation.



The urban local governance approach is a socio-politico-economic concept. It is the third tier of government ratified by constitution of national government and state government. In Bharat, 74<sup>th</sup> constitutional amendment 1992 brought legal grass-root level urban local democracy. The term “local” displays utmost importance unlike other theories of urban governance. It elegantly conceptualises state-centric urban governance model and endorses vivid local representation. This theory offers powerful framework for urban politics that is typical to a society, where there is existence of various social actors. Its recognition of diverse local actor in policy formulation, differentiate itself from all other framework. It advocates constitutional representation and power to diverse local actor and balanced financial autonomy. It is the adoption of rule based local government in urban set up (MHRD, 1992; Ministry of Law, 2018). This approach endorses urban agglomerate is a democratic space and a space of all the people live there rather corporate modelled and corporate operated cities or corporate governed city, so urban governance should democratic and should have local character.

Urban Governance is open multilateral, multi-stakeholder phenomena. It displays the causal relations of different forms of interactions between societal actors and the urban political institution. The major influential work (“Reinventing Government”) of Osborne and Gaebler (1993) has remarkably changed the nature of urban governance. Osborne (1993) emphasized the role of local governments in urban governance. For him solutions to the problem can be through local governments.

## **2.11 Collaborative Governance**

Collaborative governance is a framework. It is an integrating approach in its scope and range. Its wide range includes public administration, multi-partner, sectoral management, participatory governance, and environment management and many other relevant paradigms. It creates a multi-level framework by combining several variables. Emerson et al. define it as “the processes and structures of public policy decision making and management that engage people constructively across the boundaries of public agencies, levels of government, and/or the public, private and civic spheres in order to carry out a public purpose that could not otherwise be accomplished” (Emerson, Nabatchi, & Balogh, 2011, 2). Sometimes it is depicted as

Collaborative Governance Regime (CGR). It talks about multi partner governance, which encompasses partnerships among the government sector, private sector, civil society and the community; it also talks about hybrid arrangements like public-private partnership, public-community partnership, private-community partnership, private-civil society partnership (Agrawal & Lemos, 2007).

The Globalisation put the urban landscape in a global landscape. Therefore, the urban governance have increasingly global character. The next section discusses urban governance in global context.

## **2.12 Global Urban Governance**

The association of ‘global’ in the discourse of ‘urban governance’ puts the discourse in a globalised world view. It is stretching and connecting the concept of urban governance in the global realm. Theoretical positions of global governance is quite vast. Again it is pertinent of innumerable dimensions. The framework of global governance spans over global political governance aspect, global economic governance aspect, global security governance aspect, global environmental governance aspect, global energy governance aspect and few more dimensions (Bruckmeier, 2019; Burke & Parker, 2017; Burki, 2017; *Criticizing global governance.*, 2016; Crowther, Seifi, & Moyeen, 2018; Lacroix & Desille, 2018; Luckhurst, 2017; Macfadyen, Davies, Carr, & Burley, 2019).

### **2.12.1 Theorising Global Governance in Context to International Relation**

No doubt, the concept is inherited from geopolitics and theory of international relation. Within the academic literature of international relation, divergent theoretical frameworks view the concept of global governance in different perspective. Different theoretical paradigms of IR exhibit different characteristics of global governance; but no particular paradigm explains the discourse precisely. Thus the discourse is apparently the combination of realism, liberalism, idealism, constructivism and some other paradigms.

The realist tradition, the dominant tradition after the second world war and which rejects liberalism or/and idealism in international relation, believe in three major

components: Statism, Survival and Self-help (Snyder, 2004). On the ideas of Kautilya, Thucydides, Machiavelli and Hobbes, Classical realists like Carl von Clausewitz, E. H. Carr, Hans Morgenthau, Reinhold Neibuhr believe Human nature is the key reason for political conflicts in this world. They view that conflict is the norm in international theory (Carr & Cox, 2001; Clausewitz, Howard, Paret, & Heuser, 2006; Machiavelli & Bondanella, 2005; Morgenthau, 1967; L. N. Rangarajan, 1992; Sunzi, Clausewitz, Machiavelli, Jomini, & Jomini, 2013; Thucydides, Hammond, & Rhodes, 2009). This human nature view is somehow substantiated by modern neuroscience approach to international theory (Al-Rodhan, 2015; Anonymous Conservative, 2012; Holmes, 2014; Smythies, 2018). Despite the consideration of the brutal nature of man and its struggle for power, classical realists like Morgenthau (1967) and Carr (2001) argue that peace can be achieved through alliances and transformation. Other notable realists like Waltz (2001), Gilpin (2016; 2001), Kindleberger (1970), Jervis (1999, 2009), Mearsheimer (2001) highlight that the world system is anarchical; they focus on different poles in international relation and assert either for 'balance of power' or 'bandwagoning' for a better global governance. They always argue for state centred conceptualisation of global governance. The emergence of plethora of international political, economic, and social agents have challenged the centrality of states as dominant autonomous actor. In this changing time, realists argue for multilateral engagements for better world governance (R. W. Cox, 1997; Ruggie, 1993, 2014).

Liberalism, which prime principle is international cooperation and peace, preaches more the number of liberal states in this world, more the world became a peaceful place (Dudley & Engelhard, 2014; Hay, 2013). On thoughts of Kant, Tocquvile, Montesquieu, Locke, Rousseau, Voltaire, and Wilson, liberalism accentuates global governance through mutual benefit, international institutions, international cooperation (Hay, 2013; Locke, 2017; Montesquieu, 2002; Ossewaarde, 2004; Rosenblatt, 2017; Voltaire, 2005; Wilson, 1918). The creation of international institutions like 'The League of Nations' and 'United Nations' or any other international institution is the parasitisation of this theory for the propagation of global governance.

Institutionalism offers institutional world view where institutions are persistent determinants and act as vehicles of global governance. Within institutionalist paradigm different scholars hold different world view. Young (1982, 1986) opines that international institutions are key actors whereas O'Brien (2000) holds that it is the states, within these institution, play key role in decision making. The heart of discussion of most of institutionalist scholar is the role of formal international institutions (BRICS, United Nations, OPEC etc.) in international cooperation. But in 'complex interdependence' typology, Kohane and Nye (2012) highlight the role of other factors like interstate, transgovernmental and transnational channels. Regimes - "set of implicit or explicit principles, norms rules and decision making procedures around which actors' expectations converge in a given area of international relation" (Krasner, 1983, 9) or "sets of governing arrangements that affect relationships of interdependence" (Keohane & Nye, 2012, 16) – delineate formal organisation and informal groups could be the agents of global governance. Regime theory, which has resemblance with the 'theory of complex interdependence', views instance of cooperation like human rights, trade and collective security etc as agents of global governance (Haggard & Simmons, 1987; Hasenclever, Mayer, & Rittberger, 1997; Young, 1982).

The International Society School or The English School of International Relation - a middle ground theory between realism and liberalism – designated to incorporate and accommodate both contrasting theories to explain the major world events. It stresses the non-deterministic nature of anarchy and identifies three distinct spheres of influence – International System, International Society, and World Society – in world politics simultaneously (Buzan, 2014). Citing Hobbsean 'state of nature', Bull (2012) equates the nature of societal order with international order system and propounded 'society of state' approach. Bull shows an erosion of state sovereignty and he predicts the future of global governance as mediaevalism. Predicting the future of global governance, he states:

It is also conceivable that sovereign states might disappear and be replaced not by a world government but by a modern and secular equivalent of the kind of universal political organisation that existed in Western Christendom in the Middle Ages. In that system no ruler or state was sovereign in the sense of being supreme over a given territory and a given segment of the Christian population; each had to share authority with vassals beneath, and with the

Pope and (in Germany and Italy) the Holy Roman Emperor above. The universal political order of Western Christendom represents an alternative to the system of states which does not yet embody universal government (p. 245).

Both the strands of this theory – Pluralist and Solidarist – differs on their approach, but converge on existence of an international society and pitch for a norm based global governance (Buzan, 2014; Dunne, Kurki, & Smith, 2013; McGlinchey, Walters, & Scheinpflug, 2017) .

Constructivists, who have categorically rejected the neorealist approach citing one-sided material explanation of distribution of material power like economic power and military power in international relation, opine that the social reality of the social and political world and of international relation do not exist independently on its own; don't have physical and material existence outside human consciousness; and analyse international affairs according to the concept of the 'structuration' in which structure according to Gidden's opinion:

structures (i.e., the rules and conditions that guide social action) do not determine what actors do in any mechanical way; an impression one might get from the neorealist view of how the structure of anarchy constrains state actors. The relationship between structures and actors involves intersubjective understanding and meaning. Structures do constrain actors, but actors can also transform structures by thinking about them and acting on them in new ways (Jackson & Sørensen, 2013, 210).

Wendt (1992) delineates the anarchical structure of world in a different approach. For him:

self-help and power politics do not follow either logically or causally from anarchy and that if today we find ourselves in a self-help world, this is due to process, not structure. There is no "logic" of anarchy apart from the practices that create and instantiate one structure of identities and interests rather than another; structure has no existence or causal powers apart from process. Self-help and power politics are institutions, not essential features of anarchy (p. 394-395).

He goes ahead with the argument, "anarchy is what states make of it" (p. 395). As he thinks "self-help and power politics are socially constructed under anarchy" (p.395), he identifies three ways in which identities and interests are transformed under anarchy: first, by the institution of sovereignty; second, by an evolution of cooperation; and third by intentional efforts to transform egoistic identities into collective identities (p. 395). So, constructivists focus on normative ideas like identity

and culture rather any abstract or empirical notion for global governance. They focus on habitual practices and urge for a world state (Avant, Finnemore, & Sell, 2010; Katzenstein, 1996; Ruggie, 1998, 2014; Wendt, 1994, 1999, 2003).

Other theories and meta-theories of international politics - Marxism, Critical Theory, Post-Structuralism, Feminism, Post Colonialism, Global Justice, Queer Theory, Securitisation Theory, Green Theory, Critical Geography, Global South Perspective, Asian Perspective, Indigenous Perspective etc. - offer different prisms for better global governance with varieties of explanations (McGlinchey et al., 2017; S. Smith, Booth, & Zalewski, 1996).

The concept of global governance tries to explain the current situation of international society. Sometimes it explains the traditional forms of international relations, which is based on the premise of centrality of states as rational autonomous actors. Many times it broadens the scope to encompass the social construction of identities and interests, and social and political interaction among a plethora of agents. The emergence of the concept of global governance is a result of lack of explaining capability and lack of tools to explain contemporary transformations in the global order. It is relevant here to discuss other aspects of the discourse.

It is pertinent that the idea of global governance aims for a peaceful world society and a quest for a problem solving mechanism. It is an idea of sustained cooperation to address the global problem. As from aforementioned discussion the world is consists more than 55% urban populace and increasing every day. The problems arise here is greater in number in comparison to rural. Though global governance focus on entire globe, the major focus is solving urban problem. According to Thakur and Langenhove (2006) global governance is

... the complex of formal and informal institutions, mechanisms, relationships, and processes between and among states, markets, citizens, and organizations - both intergovernmental and nongovernmental - through which collective interests are articulated, rights and obligations are established, and differences are mediated” (p. 233).

In international arena ‘Vasudhaiva Kutumbakam’ (The whole world is one family) is a dominant paradigm to promote peace and harmony among the societies (Baadaraayana & Radhakrishnan, 1968; Widgery & Radhakrishnan, 1955). It is based on the values of acceptance, fraternity, human rights, compassion and solidarity. It has been seen as an prominent idea for value ridden global governance. It is believed to

be the pioneer for international humanitarian regime. Hammerstad (2015) opines the emergence of international humanitarian regime is emerged in west and Europe because of crisis, strife (Davey, Borton, & Foley, 2013), “historical experience of war and humanitarian disaster” (p. 459) and spread across the globe only after World War II. Bharat, due to its cultural practice, is committed to this philosophy for millennia and “subscribes with very few exceptions to the norms and values of the international humanitarian regime”, due to her “own philosophical, religious and democratic traditions” (p. 459); it is inclusive “demand-driven, bilateral, unconditional” (p. 468), more specifically “bilateral government-to-government contributions” (Meier & Murthy, 2011) and believes in partnership rather donor-receiver relationship.

Rosenau and Czempiel (1992) conceive global governance is sum of arrangements; both fundamental arrangements - such as “the dispersion of power among key actors, the hierarchical differences among them, the rules which bound their interactions, and the premises they share about the role of force, diplomacy, cooperation, and conflict” (p. 5), and routinized arrangements such as “trade, postal, and passport procedures” (p. 5). The authors argue consistently that there could be governance without any formal structure of government, in the study of international affairs because of absence of any centralised world government. Global governance for them is combination of “order plus intentionality” (p. 5). It also, as they argue, does not exclude the “national or subnational governments from the analysis (p.7). They drew a sharp line between international regime and global governance. International regime is single issue based specialised arrangement whereas global governance is conglomeration of issues of international arena.

### **2.12.2 Urban Internationalism and Global Urban Governance**

Cities have been at the heart of the discussion for the future world rather any rural world. It is conceived the future of the world is urban, that’s why the focus is more on urban governance rather rural government. Though there studies on development of rural area, it is noticeable that the proportionate research on rural governance is miniscule in comparison to urban governance.

Urban governments are becoming important nodes of power in an interconnected and well-connected system of global governance. Cities influence the discourse of global

governance. International actors live in cities. International events are being organised in urban areas. Engelke (2015) highlights

Cities have been building parallel global governance architectures for quite some time now. Cities now wield considerable power at global scale, at least across some domains, and will continue to increase their influence in the decades to come. As such, they have become important actors on the world stage, and are forging new patterns of transnational relations and new forms of global governance (p.1).

The authority of nation-state is being challenged severely by the well-connected and interconnected cities. Authorities are undergoing continuous relocation in both outward toward supranational entities and inward toward subnational groups. International institutions such as UN and its subsidiaries, supranational institutions such as European Union, African Union, SAARC, SCO, EAEU, BRICS, international regimes such as GAAT, WTO etc. relocating the authority of state in an outward manner. Equally responsibly, even more responsibly, cities put considerably stress on the core principle of Westphalian state system as they are challenging the inviolability of states and the central paradigm – states are the unitary, coherent and dominant actor in international politics - of international politics. Stressing about the subnational challenge to the Westphalian state system, Engelke describes, “the world we now inhabit as a Westphalian-Plus system, wherein technologically savvy individuals, globally-oriented nongovernmental organizations, powerful multinational firms, and sub-national political actors like cities join with nation-states in building (or, in many cases, tearing down) global governance architectures” (p. 5).

Barber (2013) emphasizes cities, rather nation-states, are suitable for international interdependence. Cities were the original incubators of democracy. Humankind, he stresses, “began its march to politics and civilisation in polis – the township” (p.3). For millennia, we heavily rely on empires, and then on nation-states to bear the civilizational burden. A long history of regional success sparks the hope for greater role of city in international politics. Depicting the city as the saviour of democracy in this globalised world, Barber tells that city is always the human habitat of first order. Urbanity, as he proceeds, “may or may not be our nature, but it is our history, and for better or worse, by chance or by design, it defines how we live, work, play, and associate. Whatever large-scale political arrangements we fashion, politics starts in the neighbourhood and the town” (p.4). As city was our origin, it would be our



destiny. It is where creativity is unleashed, community solidified, and citizenship realized. For him:

In order to save ourselves from both anarchic forms of globalization, such as war and terrorism, and monopolistic forms, such as multinational corporations, we need global democratic bodies that work, bodies capable of addressing the global challenges we confront in an ever more interdependent world. In the centuries of conflict that have defined the world from the Congress of Vienna to the defeat of the Axis Powers and the writing of a Universal Declaration of Human Rights, from the Treaty of Versailles to the fall of the Berlin Wall and the end of a bipolar world, nation-states have made little progress toward global governance. Too inclined by their nature to rivalry and mutual exclusion, they seem quintessentially indisposed to cooperation and incapable of establishing global common goods (p.4).

Cities are forming alliances; creating new international institutions without the interference of their respective states. The very existence of C40 cities initiative, which is designed to find reasonable solutions to the climate change catastrophe, is the evidence of failure of interstate climate negotiation process to reach at reasonable solution by the states through either international organisations or through supranational entities. In short, cities are forming new international order.

Glaeser (2011) tell, “The strength that comes from human collaboration is the central truth behind civilization’s success and the primary reason why cities exist” (p. 15) and this is the reason why cities can and should govern globally (Toly, 2017). Barber writes,

Cities are increasingly networked into webs of culture, commerce, and communication that encircle the globe. These networks and the cooperative complexes they embody can be helped to do formally what they now do informally: govern through voluntary cooperation and shared consensus. If mayors ruled the world, the more than 3.5 billion people (over half of the world’s population) who are urban dwellers and the many more in the exurban neighborhoods beyond could participate locally and cooperate globally at the same time—a miracle of civic “glocality” promising pragmatism instead of politics, innovation rather than ideology, and solutions in place of sovereignty” (p. 5).

If we are to be rescued, he states “the city rather than the nation-state must be the agent of change” (p. 4).

National governments are making formal relations with cities and provinces. With changing time, diplomacy is adopting changing values. Global governance is taking a new turn with the rise of ‘paradiplomacy’ where cities and its mayors became ambassadors in the world stage (Amen, 2011). The international activism if cities is

growing across the world which is transforming the diplomatic practices as well as the service delivery methods. Though not new, paradiplomacy is becoming inevitable in this changing world. Cities establishing their representations abroad, managing their own diplomatic networks, have important say in international affairs. Cities are members of international organisations. Nearly 125 multilateral arrangements of subnational governments including the ‘Local Governments for Sustainability’ (ICLEI), Urban20, ‘Global Parliament of Mayors’ (GPM), ‘United Cities and Local Governments’ (UCLG), or the Cities Climate Leadership Group (C40) are forming allies across the globe (Tavares, 2016). Global Parliament of Mayors (GPM) – a governance body of mayors – strive to tackle local challenges emerging out of global problem. This is a global governance platform which harness the collective power of cities. It advocates about local government and city’s right to self rule (GPM, n.d.).

There is an ever increasing trend of urban autonomy as well as urban secessionism. Urban autonomy fosters the idea of more autonomy in terms of decision making, administration regulation, political structure and political discourse, special status to the city. Urban secessionism delineates two - although similar but opposite – ideas. On one hand, urban secessionism advocates to secede from its periphery agglomerate and from the province which it is a part of administrative and political structure, on other hand it talks to secede from the entire state and advocate complete independence and argues for a sovereign state (Grabar, 2013; Reft, 2014; R. G. Smith, 2016). But as Engelke cautions, cities cannot go for global governance and security without the help of its parent state which provides the core public good. This takes away the insecurity dilemma such as foreign invasion, piracy in sea from Mayors and other local leaders. If the world consisted only of city-states, he argues “mayors would have to handle these issues, and the outcome might be no better than what our current system provides” (p. 7). He puts forward the example of the world’s only city-state Singapore, where the city-state has to plan for defence to secure itself like any other countries do. It is thus forced to act like other states in terms of military alliances with other countries, and has an advanced air force, navy, and army.

International forums such as Urban20, C40, ‘United Cities and Local Governments’ (UCLG), ‘Global Taskforce of Local and Regional Government’ etc. are emphasizing an important trend in global governance – City-centred global governance. The

mission statement of UCLG - “To be the united voice and world advocate of democratic local self-government, promoting its values, objectives and interests, through cooperation between local governments, and within the wider international community” (UCLG, n.d.-b) - accentuates the greater role of urban local government. It stress on aspirations and contributions of sub-national governments ensuring sustainable developments (UCLG, 2017). It advocates, “Local and regional governments are best placed to lead, since every community, settlement and territory must ‘co-produce’ a response that is context-specific in order to fulfil the agendas’ ambitions. This response must address the challenges of poverty, rising inequality, insecurity, environment depletion and climate change”. It outlines three line of action. Local Action – which “addresses how sub-national governments can contribute to the achievement of the SDGs, the Paris Agreement, the Sendai Framework and the New Urban Agenda”; National Action – which “focuses on national legal, institutional and policy reform”; and International Action which tackles “three of the most potent enablers of national and local development: global governance, international financing and decentralized cooperation” (UCLG, n.d., para 2).

There is an emerging trend of denationalisation of global politics. National governments and their treaties, which are vehicle of sovereign of state, have been eroded due to economical globalisation, global social movements, demand for greater coherence of ethnic and various subgroups, multinational companies, technological revolutions; increasing and forced global interdependencies because of numerous transnational issues such as terrorism, human trafficking, illegal drug trade, environment pollution. It would be noted that all these events are largely urban phenomenon. These centralised and decentralised dynamics have fostered denationalisation, increased role of sub-national state actors such as municipal government, contributed to the shifts in the loci of authority, rising significance of urban internationalism (Acuto, 2013; Alger, 2014; Amen, 2011; Engelke, 2015; EU, 2011; Hambleton & Gross, 2007; Herrschel, 2014). Although there is increasing trend of urban internationalism the implementation of policies is largely dependent on urban local governments (municipalities). The mayors are neo-kings and the municipalities are neo-states (Curtis & Acuto, 2018; Hachigian, 2019; Levi, Anadu, Rodriguez, & Zarrilli, 2017).

## **2.13 Major Challenges of Urban Governance**

Throughout history, cities have been the fertile grounds for governance and administration, for culture and society, for science and technology, for individual and collective creativity, and for learning and innovation. This led to cities as places which witness the emergence of problem and so its solution. Today cities of the world are witnessing massive challenges. The challenges are interconnected to each other and are multifaceted in nature. There are no universal pattern of urban governance. Difference in the pattern of governance results difference in challenges. Some urban centres have unique challenges which are not found anywhere else. But still many challenges seems to be ubiquitous in all urban agglomerates. To overcome these challenges and to go ahead, cities must identify the challenges and then try to overcome them. Some of major challenges for urban governance are discussed below.

### **2.13.1 Waste Management**

Today, in global scenario cities occupy only 2% of global land but contribute 70% of world GDP, 60% global energy consumption, 70% greenhouse gas emission and also 70% global waste (UN-Habitat worldwide, 2016). Historically, the waste generated by humans was insignificant because of population density. But after industrial revolution the production and consumption amount has increased, so the amount of waste. Solid waste which is a major sources for creating unhygienic condition and in turn it pollutes environment and outbreak of vector-borne diseases follows. Likewise, chemical waste, e-waste and radioactive waste are threat to the whole humanity. These were primarily originated from cities. The first shock of waste mismanagement will have catastrophic effect on cities. Cities should prepare to face the challenges of waste management as most urgent challenge. There will be an extended discussion on waste management in third chapter.

### **2.13.2 Globalisation (Global Urbanisation)**

Globalisation forced cities for a socioeconomic and political-institutional reterritorialisation. Globalisation is dynamic; it brings extraordinary potential in one hand and huge risk in other hand. It has significant impact but also an essential part of

urban economic development. It is impossible to move out from the clutch of globalisation as key impetus in the field of urban practice. Liu (2016) concerned about the ill effect of globalisation, and put a question - “How can cities deepen their efforts to be globally engaged and competitive while addressing head on the disparities and negative consequences that come with greater global integration?” Urban economy is being exposed to global and transnational flows of goods, services, and labour. Local institutions are found themselves in dire economic competition. This highlights the structural crisis of cities in an extreme global competitive environment. Urbanization and globalization have accelerated and contributed to the increase of urban poverty. Globalisation has failed miserably to serve the need of urban poor (UN-Habitat, 2001). It has created social and spatial disparities and resulted social and spatial fragmentation. Thus globalisation though necessary, but has become a major challenge for urban governance.

### **2.13.3 Homelessness**

Innovation and industry made cities as the centres of production and became the centres which provide better opportunities for job. So, urbanisation became rampant population growth of cities became massive. Cities became overcrowded in comparison to its strength. This rapid urbanisation contributes to the emergence and spread of large urban agglomerations and cities became overcrowded. It has adverse implications like inadequate accommodation, congestion, unavailability of basic facilities. Today, “affordable housing is inadequate and adequate housing is unaffordable”. The ‘Universal Declaration of Human Rights’, 1948 and the ‘International Covenant on Economic, Social and Cultural Rights’ recognise ‘adequate housing’ as part of the right to an adequate standard of living. Conditions for adequate housing as per Habitat III conference is as: 1) “Security of tenure: housing is not adequate if its occupants do not have a degree of tenure security which guarantees legal protection against forced evictions, harassment and other threats”; 2) “Availability of services, materials, facilities and infrastructure: housing is not adequate if its occupants do not have safe drinking water, adequate sanitation, energy for cooking, heating, lighting, food storage or refuse disposal”; 3) “Affordability: housing is not adequate if its cost threatens or compromises the occupants’ enjoyment

of other human rights”; 4) “Habitability: housing is not adequate if it does not guarantee physical safety or provide adequate space, as well as protection against the cold, damp, heat, rain, wind, other threats to health and structural hazards”; “Accessibility: housing is not adequate if the specific needs of disadvantaged and marginalized groups are not taken into account”; 5) “Location: housing is not adequate if it is cut off from employment opportunities, health-care services, schools, childcare centres and other social facilities, or if located in polluted or dangerous areas”; 6) “Cultural adequacy: housing is not adequate if it does not respect and take into account the expression of cultural identity” (p.1).

UNDP (2017) asserts “more than 1 billion people live in housing that is below minimum standards of comfort and sanitation and new houses will have to be built for 3 billion people by 2030”. Also an estimation of US\$57 trillion in global infrastructure investment is required by 2030, in order to accommodate millions of urban dwellers (n.d.). In addition substantial amount of money is require for the maintenance of these infrastructure. United Nations policy paper on housing policy (2016a), has stressed:

- For integrated housing framework;
- For inclusive housing;
- For affordable housing;
- For adequate housing; and
- For informal settlement upgrading.

Lack of adequate housing causes increase in housing rents making difficult for poor urban dwellers to afford. This generates slums for the urban poor and homelessness for relatively middle class urban people. Thus, housing is persisting challenge, urban governance is facing and the problem will be acute in future if priority is not given to resolve the problem.

#### **2.13.4 Migration**

Everyone wants success and better life and there is a general perception that success can only found in cities. Millions people migrate to urban areas in search for better life and to fulfil their dreams. Migration is of two kind internal migration - movement

of people to urban areas but inside a country, and external migration - movement of cross-border folks either seeking for better life or to avoid persecution or to avoid the war and strife condition in their country (UN-Habitat, 2015a). United Nations in its International migration Report (2017) has alarmed about the rapidly growing number of international migrants worldwide in recent years. From 173 million in 2000 and 220 million in 2010, it rises to 258 million in 2017. It enumerates that “60 per cent of all international migrants live in Asia (80 million) or Europe (78 million). Northern America hosted the third largest number of international migrants (58 million), followed by Africa (25 million), Latin America and the Caribbean (10 million) and Oceania (8 million)” (p. 1).

In 1990, roughly 15,25,42,373 people were counted as international migrants among which nearly half of migrants were women. The migrant stock is increasing day by day. In 2017 the total number of international migrants stood at 25,77,15,425. As the UN DESA data indicates the migrants were 2.9% of total population and rose to 3.4% in 2017. There is reduction in female migrants from 49.2% in 1990 to 48.4% in 2017. But still this situation is being complex day by day and hence condition of migrants should be given greater attention (UN, 2017). Habitat III issue paper on migration informs that “The majority of migrants and displaced populations move to urban areas. 2 Almost all countries are now simultaneously countries of origin, transit and destination, with the majority of countries carrying international legal obligations to protect refugees” and “some 60% of the total 14.4 million refugees 3 and 80% of the 38 million IDPs 4 are thought to live in urban areas as a result of conflict and other drivers” (UN-Habitat, 2015a, 2). New Urban Agenda stressed to improve condition of migrants, whether they are internal migrants or external migrants (UN-Habitat, 2017). Peters and Pierre (2012) perceives migration as a policy and administrative problem is different in different national and political contexts. The Scandinavian and European welfare states assume that “the political economy would be a fairly closed system with only marginal movement in and out of the system”, and thus “with increasing migration, large groups of immigrants have become eligible for welfare-state services compelling central and local government to increase their financial input into welfare-state programs”.

As Gross (2007) told “One of hallmarks of globalization is increased mobility”. Popular mobility is understood as influx of migrants and exodus of permanent residents. Gross argues “Those who arrive in the city come with differing histories, cultures, skills, interests, priorities and needs. Some come in search of jobs or education others seek political, religious or social asylum”. But all seek better life for themselves and for their families. The growing urban population will increase diversity and density, and it will follow the competition for access to power and resources.

He took cognizance of the fact that the state of urban demographic change might face a potential crisis of legitimacy (p. 73). Lijphart (1997) concerned about unequal political participation and argued unequal representation have unequal influence. Thus migration might have profound impact on the future of the city and its people. A clear engagement with migrant is necessary for coherent society.

### **2.13.5 Sub-Urbanisation (Urban Sprawling)**

Cities became locations of opportunity that ignites urban migration, but when a lot of people move into the big cities, the city becomes overcrowded, and led to congestion, undesirable living conditions, and poor sanitation. The more difficult is to keep the city clean, and major health epidemics broke out due to improper sanitation. The beginning of first stage of sub-urbanisation is started by rich and affluent citizens. They move to outer edges of city to avoid congestion, crime, noise and to avail spacious homes and better environment.

Cox (2013) has narrated the suburbanisation of 23 mega cities as:

URBAN AREA	CORRESPONDING METROPOLITAN REGION
Bangkok	10 Years: 55% of growth outside core municipality
Beijing	10 Years: 99% of growth outside core districts
Buenos Aires	60 Years: 100%+ of growth outside core municipality
Cairo	16 Years: 2/3 of growth outside core governate
Delhi	10 Years: 90% of growth outside core districts
Dhaka	10 Years: 50% of growth outside core municipalities
Guangzhou-Foshan	10 Years: 75%+ of growth outside core districts



Istanbul	25 Years: 100%+ growth outside core districts
Jakarta	20 Years: 85% of growth outside core jurisdiction
Kolkata	20 Years: 95% of growth outside core municipality
Los Angeles	60 Years: 85% growth outside core municipality
Manila	60 Years: 95% growth outside core municipality
Mexico City	60 Years: 100%+ of growth outside core districts
Moscow	8 Years: 95% of growth outside core districts
Mumbai	50 Years: 98% of growth outside core districts
New York	60 Years: 95% growth outside core municipality
Osaka-Kobe-Kyoto	50 Years: 95% of growth outside core municipalities
Rio de Janeiro	10 Years: 95% of growth outside core districts
Sao Paulo	20 Years: 2/3 of growth outside core municipality
Seoul	20 Years: 115%+ of growth outside core municipality
Shanghai	10 Years: 99% of growth outside core districts
Shenzhen	10 Years: 70%+ of growth outside core districts
Tokyo	50 Years: 95% of growth outside core municipalities

The suburban area seen an exponential growth after the expansion of metro rail, establishment of new industries, construction of expressways and highways and development of telecommunications. Zhang (2016) identifies causes of suburbanisation as:

1. Suburbs meet both the cost of new housing and the associated transport costs regarding the rapid growth of the urban population and rising disposable incomes;
2. Widespread diffusion of the automobile enhanced individual mobility;
3. Suburbs provide the particular living environments which the inhabitants desired and could pay for, escaping from crowded and increasingly dangerous inner cities;
4. Huge demand for affordable housing at the end of World War II;

5. Rising unemployment at the core cities and forced people move away from cities to search for employment elsewhere, ;
6. Loan programmes encouraged the development of single-family, detached houses in the suburbs;
7. The guaranteed fixed-interest mortgage made it cheaper in many cases to buy a house than to rent an apartment;
8. The goals were promoted by public policies that favoured highway construction over mass transit;
9. Rising problems such as crimes made well off families to escape inner cities (n.d).

However, the lack of clear urban limit led to encroachment of agricultural lands, environmental sensitive areas, and environmental pollution, depletion of green belt follow the race. Proper spatial planing for city periphery is required to avoid the greater challenge of suburbanisation.

### **2.13.6 Pollution**

Historically cities were the centres of industry and innovation. Expansion of cities always causes deforestation, degradation and pollution of of soil, underground water and surface water, biodiversity loss, GHG emission. Unlike rural area which consumes most of the sun's energy by vegetation, soil and water, cities have less exposed soil, vegetation, and heat from sun is absorbed by buildings and concrete roads. This causes higher surface temperature of cities. Continuous construction works, fossil fuel power stations, waste incinerators, use of biomass, motor vehicles, controlled burn practices in agriculture, fumes of paint, hair spray, aerosol spray, varnish, marine vessels, aircrafts, waste deposit landfill etc. are major air pollution determinants. Industrial waste, domestic waste are dumped to rivers and this led water pollution more acute. Inadequately treated sewage discharge to river, detergent, food processing waste, volatile organic compound like industrial solvents, etc. contribute to larger water pollution problem. E-waste, intensive, farming, mining, industrial accidents, oil spills, dumping yard etc. gives rise to soil contamination. The warning

of WHO (2018) is considerable as 9 out of 10 people breathe air containing high levels of pollutant. Key facts from WHO is as:

- WHO recognizes that air pollution is a critical risk factor for non-communicable diseases (NCDs), causing an estimated one-quarter (24%) of all adult deaths from heart disease, 25% from stroke, 43% from chronic obstructive pulmonary disease and 29% from lung cancer.
- WHO estimates that around 7 million people die every year from exposure to fine particles in polluted air that penetrate deep into the lungs and cardiovascular system, causing diseases including stroke, heart disease, lung cancer, chronic obstructive pulmonary diseases and respiratory infections, including pneumonia.
- Ambient air pollution alone caused some 4.2 million deaths in 2016, while household air pollution from cooking with polluting fuels and technologies caused an estimated 3.8 million deaths in the same period.

Thus, pollution is the serious challenge and looming danger is being faced by contemporary urban agglomerations.

### **2.13.7 Urban Poverty**

Poverty is the important thrust of rural-urban migration. Urban people are more dependent on cash to fulfil their essential needs. Defining urban poverty has always been a difficult task, as there is ambiguity of definition of urban and of poverty, in different countries of world. In (1998) UN recognised poverty is a global phenomenon and also convinced that:

Poverty is a denial of choices and opportunities, it is a violation of human dignity. It means lack of basic capacity to participate effectively in society. It means not having enough to feed and clothe a family, not having a school or a clinic to go to, not having the land on which to grow one's food or a job to earn one's living, nor having access to credit. It means insecurity, powerlessness and exclusion of individuals, households and communities. It means susceptibility to violence and it often implies living on marginal and fragile environments, not having access to clean water and sanitation (n.d.).

Poverty is a multidimensional and complex phenomenon. Indicators of poverty is sometimes identifies deprivation of people in terms of maternal deaths during childbirth, infectious diseases, hunger, education, sanitation, teenage pregnancy, homelessness, Gender based violence. So, eradication of poverty is a challenging and a complex task. Basu (2015) emphasizes that different countries have different poverty lines according to their own special needs, contexts and to their normative standards. However to identify the poorest people of the world, he argues for the necessity of global poverty line. Rangarajan and Mahendra Dev (2014) reiterated the same idea and told the convince way is certain minimum consumption per person or per household, but recommend to use poverty line basket to identify poverty. The World Bank (2015) uses international poverty line US \$1.90 per day and tells that still 702 million people are in extreme poverty trap. UNDP (2016) uses Multidimensional Poverty Index (MPI) in Human Development Report (HDR): its dimensions are (1) health, (2) education, (3) living standard (UNDP, 2016). World Bank Group (2016) concerned that irrespective of poverty reduction and progress, inequality is growing day by day and is greater now than twenty five years ago. The crisis of urban poverty is every day children born into poverty. Baker (2008) enlists the crisis due to urban poverty as:

- (a) limited access to income and employment;
- (b) inadequate and insecure living conditions;
- (c) poor infrastructure and services;
- (d) vulnerability to risks such as natural disasters, environmental hazards and health risks particularly associated with living in slums;
- (e) spatial issues which inhibit mobility and transport; and
- (f) Inequality closely linked to problems of exclusion (Baker, 2008, 4-5).

UN Habitat (2012) recognises in its key message that “Urban poverty challenges are multidimensional, the most visible and enduring faces of which are the growing slum and squatter settlements linked to insecurity of tenure and inability to access basic services”, and also “ The adverse impacts of climate change have intensified the vulnerability of the urban poor, worsened by their informal legal status, limited access to housing, basic services and social protection” (p. 1). Urban poverty, according to UN Habitat (2003).lead to serious concerns as

- I. large and growing backlogs in delivery of basic services to urban residents as demand outstrips institutional capacity and financial resources;
- II. the worsening state of access to adequate shelter with security of tenure, resulting in severe overcrowding, homelessness and environmental health problems;
- III. increased vulnerability to environmental health problems, environmental shocks and natural disasters;
- IV. increasing intra-city inequality, manifested in stark residential segregation, multiplying violence impacting disproportionately on women and the poor themselves;
- V. lack of participation of communities in decision-making processes and implementing activities;
- VI. Vulnerable sectors among women, children and youth (p. 12).

The number of urban poor is rising day by day. They are deprived of, nutrition, cooking fuel, water especially clean drinking water, electricity, education, sanitation. They are the most vulnerable and exposed directly to highly polluted air. They are prone to chronic diseases and epidemics. Unemployment, hunger, illness, natural calamities makes them more vulnerable. The global economic slowdown make the condition more worst and which creates stagnation in their condition. Thus, urban poverty is a globalised challenge for urban governance.

Nearly all ancient urban societies engaged in deforestation, often with disastrous consequences of soils erosion and the water pollution. Forests have cleared for agricultural cultivation. Eventually the natural environment of city is depleted and destroyed the very essence which has established the city. Most ancient cities were ultimately destroyed or abandoned.

The artificial environment of the city, which subjugated the surrounding natural environment to the needs of the populace, consistently is seen to eventually deplete and destroy the very resources which gave rise to the city. Mumford argues:

The blind forces of urbanization, flowing along the lines of least resistance, show no aptitude for creating an urban and industrial pattern that will be stable, self-sustaining, and self-renewing. On the contrary, as congestion thickens and expansion

widens, both the urban and the rural landscape undergo defacement and degradation, while the unprofitable investments in the remedies...serve only to promote more of the blight and disorder they seek to palliate.

Though above are discussions about major challenges to urban governance, the challenges are not limited to these. There is no exclusiveness as all are somehow interconnected to each other. To overcome those challenges of urban governance there exists numerous constraints. Some well-known constraints are discussed in the next segment.

## **2.14 Constraints in Overcoming the Challenges of Urban Governance**

Cities operate in a complex web of vertical relation with central, government, state government, regions, and transnational government, as well as horizontal relationship with private entities and non-governmental sectors. Public-private exchange of resources is the modus operandi in all capitalist economy. Cities are not immune to this mode of economy. These factors creates some constraints which are both institutional and non-institutional in nature.

### **2.14.1 Public Policy**

Public policy is the major constraint - most of the cities are facing. Lack of public policy design and implementation results maladministration and chaos in public delivery system. Difficulties arises in addressing various public problems and cities became in frenzy state. There are two broad outlines, why public policy is constraint to urban governance. The first kind is data inefficiency. Inadequate city information results non-identification of city problems and this leads to inefficient public policy which in turn don't solve the city problems. Most of the cities are reeling under this problem. The second kind is political. In almost all the nations, central government prepares blueprint and policy frameworks and local governments have to implement it. Pierre and Peters (2012) describes "Local governments are embedded in national, sometimes also transnational institutional and policy frameworks which prescribe or prohibit specific forms of political and administrative behaviour among the local governments". This results disagreements among the different tiers of government

concerning the best policy for the city. There are conflicts based on ideology in Japan and U. K. between central and local governments (Harding, 1998; Michio & Muramatsu, 1997). Thus, inadequate city information and complex political relation among tiers of government delivers either inefficient public policy or paralysed public policy.

### **2.14.2 Institutional Capacities**

In some countries, constitution delineates the institutional orders of central, state and local government and so urban governance has legal status. Whereas in some countries only unwritten makeshift urban government structures are available. In both cases the autonomy of urban government is limited. Urban governments must match the institutional capabilities to address the continual changing pattern and complex web of policy network in cities. The availability of best public policy and visionary political leader cannot brought major change, if institutional capability is at low. To strengthen institution capability two fold solution is needed. First, definite constitutional arrangements for the structure and autonomy of urban government. Second, Urban political leaders to change structural pattern according to constitutional guidelines.

### **2.14.3 Political Leadership**

Cities are facing transformation day by day and they have to face the challenges emerged from within and from outside of their territory. Cities are facing sever challenges ever than before. So contemporary cities need efficient and alert elected representatives. Inefficient political leaders, who lack vision, who do not understand public policy and economics, cannot assure sustenance of city. They do not understand multilevel policy making, social policies, economic policies, role of non-governmental organisation in governance, they cannot utilise the powers of civil society (Dorsch & Maarek, 2015; Goldsmith, 2016). In other words inefficient political leaders do not understand the role of public institution and the role of actors of urban governance. They just hold the portfolio enjoy the amenities, and make the city vulnerable to economic and social distress.

#### **2.14.4 Incautious Citizens**

Incautious citizens are constraint for urban governance in two ways. First, they do not vote rationally rather according to community affiliation. Secondly, they are passive to corruption in public affairs. Thirdly, they were averse to increased taxes and fees. City is meant for citizens. Progress of city needs infrastructure. Infrastructure for city is like basic necessity for human being. Without modernisation of city infrastructure, city will face decline in terms provide services to its citizens. To build infrastructure, resources is dire necessary. Resources are being generated from taxes and service fees. So, cities also need cautious citizens.

There are numerous constraints exists for challenges of urban governance. But few, which affects in large, have been discussed here.

#### **2.15 Conclusion**

Humans don't take birth by their choices but they definitely can live with their choices. In this age of abundance of resources, no one should feel that his/her life is miserable because of lack of opportunity. Governance arrangements should provide enormous and equal opportunity to all, and strive hard to minimise the opportunity gap; which in turn will help humans to achieve their choices.

To solve the challenges of this century, integration of cities into global governance structure and processes through an integrated policy approach of world's foreign policy, security policy, and development policy.

The above analysis demonstrates that

As more than 55% people live in urban agglomerate and the number is increasing rapidly, the future of the world will be urban. Cities will be the places where we will face all the major challenges to our civilisation.

In the age of globalisation cities influence and got influenced and to the outer cultures. This helps them to learn the best parts from around the world.

Waste is major challenge to the city governance. The world accepts it and made numerous measure to prevent problems arises due to waste. There are challenges to urban governance such as globalisation, homelessness, migration, pollution and many



others. But waste is major challenge as it affects directly to our livelihood, life liberty and safety.

Though cities go global, still local government is necessary to implement the urban policies designed by whether national government or the international agencies.

It is pertinent that the governance aspect is comprises of both structure and process. The structure of urban governance has much been debated and urban local government is considered as the preferred one. At the same time, public policy is preferred as the promising entity in the arena of process.

The next chapter will discuss the constitutional and structural aspects of urban governance to understand its resiliency.

# **Constitutional and Structural Aspects of Urban Local Governance in Moscow and Delhi**

“In questions of power, let no more be heard of confidence in man, but bind him down from mischief by the chains of the constitution.”

- Thomas Jefferson

The previous chapter has discussed the theoretical impetus of urban governance and public policy in local, national and global context. From those mentioned erudition, it is evident that constitutional support as well as efficiency of the structures of urban government is instrumental for better urban governance. This chapter is devoted to the constitutional provisions and the structural aspects of ULBs in both the capital cities i.e. Moscow and Delhi. The chapter attempts to describe and analyse urban local government institutions in the annals of history and the present structure. The developmental trajectories of ULBs during 20<sup>th</sup> and 21<sup>st</sup> have given primary attention. The focal point of the chapter is the comparison organs of LSG of Russia and Bharat as well as of Moscow and of Delhi. Structure here comprises the administrative-territorial unit as the unit of execution of urban policy. The chapter discusses the decentralisation of political and territorial units and about executive organs. By doing so, the chapter expects to examine whether the structural aspect of these cities are equipped to face the hyper-changing complex problems of urban world or not.

## **3.1 Urban Local Governance in Russia Before 1993**

This section focuses on system of urban governance along with local governance in constitutional and institutional evolution in Russia before the adoption of Constitution on 1993. It talks about fundamentals of urban local governance and its structure before adoption of Russian constitution of 1993 (during Tsarist Regime, during USSR period).

Scholars have diverse opinion regarding the past of Russian social, political and economic structure. Many eminent scholars argue that Veche – town assembly – was the earliest local governance institution existed during 12<sup>th</sup> - 13<sup>th</sup> century Russia, and

were the organs of communal democracy. Veche, in its administrative role, also granted permission to the princes to collect money to conduct war. This was replaced by the feudal system of Votchina during 12<sup>th</sup> century (Lapteva, 1996, 317; Miller, 1986, 224-229). Goverdovskaya chronicles that till the mid of 16<sup>th</sup> century, Kormleniye was practised as the system of local governance in Russian Empire. But, in the year 1555, Ivan the terrible abolished the system of Kormleniye and introduced the Zemstvo institutions (Goverdovskaya, 2006).

The ‘Charter on the rights and benefits of the cities of the Russian Empire – 1785’, was signed by Catherine II and had evoked the concept of ‘Urban Corporation’ representing six categories of inhabitant. It consisted sixteen sections along with one introductory account which were dealing with a number of matters related to town planning and administration. Some of them are given below “Municipal Statute; On city dwellers; Establishment of town society and its benefits; Directions for composing and keeping of municipal dwellers register; Evidences on city dwellers; On personal benefits of city dwellers and petty bourgeois; On guilds and its advantages in general; On the top guild; On the second guild; On the third guild; On guilds’ advantages; On visitors from other towns and foreign countries; On privileges of eminent citizens; On municipal income; On General town council and town council of six deputies”. It regulated the legal status of urban population; instituted urban corporation and categorize the inhabitants into six categories (Ekaterina II, 1785a, 1785b; Lincoln, 1969). With this charter new elective municipal institution has been introduced in Russian Empire.

Urban Governance further reformed and got more power during Tsar Alexander II. He ascended the throne in 1855 when Russia was devastated in Crimean War of 1853-56. To prevent unrest and rebellion in a crisis ridden society, he introduced numerous reforms during 1860-70, which often termed as ‘The Era of Great Reform’. After the ‘Emancipation Reform 1861’, Serfdom is abolished in Russian Empire; and thereafter socio-cultural and political upheavals broke throughout the Empire. The Estate-Serf system was collapsed and as inevitability, the legal local self-governance system – Zemstvo – was emerged as the viable, all class and self-financing institution in 1864. Zemstvo was then the combination of elected and appointed delegates. It existed on two levels – the ‘Uyezd’ (the lowest territorial units in Russian Empire) and the ‘Province’. Zhukova proclaims that Zemstvos were the first organized local self-

governance experienced in Russian society during this period. He also ascertains, Zemstvos were managing all aspects of local life including education, health care, agriculture, food business, charitable institution, land insurance, postal service and many more. Uyezd and Provincial Zemstvos elected the executive body – Uprava, to carry out day-to-day work (Finkel, Gehlbach, & Olsen, 2015; Pushkarev, 1968; Zhukova, n.d.). Zemstvo was democratic in nature as it comprises of various segments of society such as the nobles, the peasants, the traders, the urban residents. It is a remarkable phenomenon that Zemstvo institutions were operated in a monarchical form of government but possessed greater amount of independence in matters of electing public official, financing their own projects.

The Charter of Catherine II remained as a poorly functioning charter for urban local governance until 1870, when Alexander II, riding on the wave reforms, signed the decree for city regulation 1870. Parallel to Zemstvo reform, the charter introduced urban public administration, urban local governance and urban local government institutions such as the urban electoral assembly, the City Duma and the City Government (Alexander II, 1870). Town Uprava (City Board) was created as the subordinate executive body to carry out everyday affairs. Town Head – an elected person – presided over Duma as well as Town Uprava (“History of the Duma,” n.d.). The Stolypin Reform 1906 had changed the structure of local governance system prevailed in the then Russian empire. The reform abolished the ‘Obschina’- peasant village community – and had replaced it with capitalist model of individual land holders. It abandoned the communal land distribution system and replaced with individual land ownership system (Dower & Markevich, 2018). But still Zemstvos were the organs of local-self-governance. Zemsky Union (Zemsky Soyuz) and Union of Towns (Soyuz Gorodov) combined and formed Zemgor (Zem+Gor) in 1915 but these were only meant to provide assistant to the wounded soldiers and supply the basic necessities to the army and did not possess any characteristics of ULSG.

The last and pre-Soviet attempt to strengthen local governance was during the provisional government of 1917, when it adopted ‘Declaration proclaiming reform of local self-governance’, ‘The law on electing councillors of town Dumas and on district authorities’ and ‘Regulation on Volost’. Though ‘Volost’ was existed during the ‘pre-emancipation of serfdom’ era, as a district grouping peasant communes, it did not consider serfs - who were majority of the then population - to participate in local

governance. For the first time in Russia, those regulations of 1917 had introduced universal suffrage to elect members for ULSG. All the citizens, who were more than 20 years old, got the right to vote. Volost was the smallest administrative and territorial unit for local self-governance. Volost zemsky assembly was the representative body for local self-governance (Goverdovskaya, 2006). The executive works were assigned to 'Volispolkon' which was 'Volost Soviet Executive Committee' (Figes, 1988, 39-43). Goverdovskaya analyses the historical experience and formation of LSG institutions into four major principles:

Social-and-political multi-structural development on the basis of ethno-political, cultural, religious and other traditions;

- a) Segregation of authority resources by principle of their utilization efficiency at each level;
- b) Enjoyment of broad spectrum of rights in economic and executive fields by the local self-governance entities; and
- c) Prohibition for local self-governance bodies to participate in national politics and focusing all their work on satisfying first-priority needs of the residents (Goverdovskaya, 2006, 5).

Hence, in structural aspect, in Russian Empire the smallest administrative and territorial unit was 'Uyezd' and the representative LSG body was 'Uyezd Zemsky'. Uprava was the organ of executive institution for conducting daily affairs assigned to LSG institutions. Above it the structural unit was 'Province' and the Representative body was 'Province Zemsky'. During the Provisional Government of 1917, the smallest administrative and territorial unit was 'Volost', and the representative body was 'Volost Zemsky'. The executive body for local governance - Volispolkon – was assigned the implementation of policies.

Like the rest of the medieval world and till 1917, Russian political, economic and social life had been dominated by the monarchical order. The formation of government, its structure, and its operational design had been moulded by the Tsars; and continued till the communists had overthrown the Tsarist Empire and had mercilessly killed all the members of Tsar Family (Porter, 1995).

Russia's legacy of local governance, as Young and Wilson argue, is "exceptionally weak" with an exception of Zemstvo institution. Describing the local governance affairs of USSR, they assert that, "the primacy of the state consistently dominated the

dish” during the Soviet period (Young & Wilson, 2007, 1072). The first constitution of post-Tsarist Russia (RSFSR) was adopted on 1918 and it provided the structure where the ‘Soviets’ were at the helm of local governance affair (Vserossiyskim s"yezdom Sovetov, 1918). Local soviets were reporting higher soviets and formed Ispolkoms (executive committees) to carry out executive functions and Congress of Soviets were formed. From top to bottom administrative structure was integrated and unified into a single public authority system. Democratic centralism was overriding the concept of self-government. Local soviets can’t be considered as LSGs because these had no right to take independent decisions within its legal framework. Scholars argue, soviet period of Russian history of local governance was tokenism and only structural rather any representation of local self-government. (Goverdovskaya, 2006; Lapteva, 1996). Soviets, as Lapteva views, were considered “as institutions of local government, not of local self-government, because, although they were elected by the community, they were associated with the centralized state (Lapteva, 1996, 319)”.

During the period of Perestroika, municipal governance was reformed with the acceptance of the USSR law ‘On General Fundamentals of Local Self-Governance of Local Economics’ in the USSR in 1990. This marked the reintroduction of local self-governance in Russian political vocabulary (WB, 2003, 6). With the recognition of LSG bodies, in opinions of Ross and Campbell, the Soviet doctrine of ‘unity of state’ was broken (Ross & Campbell, 2010, 228). This law clearly delineated the cause of existence of local governance, the structure and the function of the body. Different kinds of direct democracy such as local referendums, assemblies, gatherings of citizens had been introduced (Goverdovskaya, 2006; Lapteva, 1996). The first post-soviet RSFSR law no 1550-1 ‘On Local Self-Governance in RSFSR’ attempted to retain the existing system of local governance in accordance with changing organisational principle of new non-communist environment (Drobot, 2012, 8). In a disguised manner to supersede the USSR 1990 law, this law no 1550-1 of the year 1991 introduced the ‘shared legislative power’ between the federal government and federal subjects. The elected local councils of 1991 were dissolved after the dissolution of National Parliament in 1993 which was resulted due to the Yelstin Coup of 1993.

## 3.2 Constitutional and Structural Aspects of Russia

As the matter of fact both, the formation of USSR in 1922 as well as the formation of Russia in 1991 is marked by the tank shelling; and then the subsequent adoption of the constitutions in 1924 and in 1993 respectively (Khrushcheva, 2019; Yelstin, 1993a). The Constitution of Russia is the basic law and the highest legal force which prevails throughout the Russia (Article 15.1). It describes Russia as a democratic federative legal state with republican form of government (Article 1). Constitution grants a multi-party system for democratic representation.

The state authority in Russia is divided into two parts: Federal Authority (of Federal Government) and Regional Authority (of Subjects of Russian Federation) (Article 11.3). In matters of policy formulation and implementation, the Federal Authority is entrusted for the “establishment of the bases of the federal policy and federal programs in the field of state, economic, ecological, social, cultural and national development of the Russian Federation”, including various other policy matters (Article 71.f). Similarly, Both “Federal Authority and Authorities of Federal Subjects are jointly entrusted for the nature management, environmental protection and environmental safety” (Article 72.e), as well as entrusted for forestry legislation, legislation on subsoil and on environmental protection (Article 72.j).

The federal government has three branches of authority: legislative, executive and judiciary (Article 10). The authority is distributed among the four pillars of the state power: (1) the ‘President of the Russian Federation’, (2) the ‘Federal Assembly (the Council of the Federation and the State Duma)’, (3) the ‘Government of the Russian Federation’, and (4) the ‘Courts of the Russian Federation’ (Article 11.1). At the legislative front, Russia has a ‘bicameral Federal Assembly’ where State ‘Duma’ is the lower house with 450 members and ‘Federation Council’ is the upper house with 170 members (Article 94 – 101). Judicial Authority consists of ‘The Constitutional Court’, ‘The Supreme Court’ and ‘The Lower Federal Courts’ (Article 118 – 129).

Russia has a federal semi-presidential form of government as there exist dual executive power. In matters of executive authority, the Constitution underlines that “The executive authority of the Russian Federation is exercised by the Government of the Russian Federation” (Article 110.1). The constitution spells out a dual executive authority with both the presidents as well as the prime minister are at the helm of

executive affairs (Article 78.4). The executive affair may be divided into two parts: 'Federal ministries', 'federal services' and 'federal agencies', which are managed by the 'President of the Russian Federation'; and Federal ministries, federal services and federal agencies, which are controlled by the 'Government of the Russian Federation'.

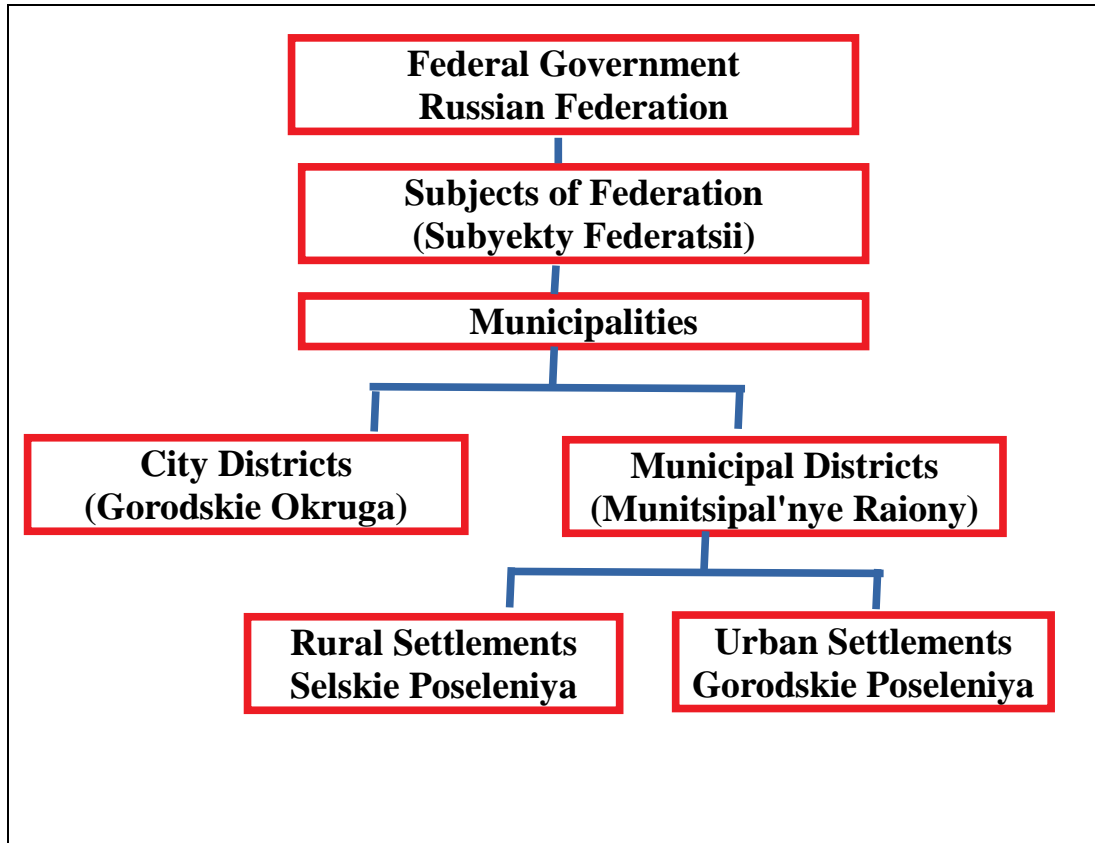
"President of Russia is the head of the state" (Article 80) and "Prime Minister of Russia is the head of the government". The Government of Russian Federation is consists of the Prime Minister who is also the Chairman of the Government, the Deputy Prime Ministers ((Deputy Chairmen) of the Russian Federation and other federal ministers (Article 110.2). The President is not a part of the government. The Constitution entrusts the Government of Russia: to "ensure the implementation of a single financial, credit and monetary policy in the Russian Federation" (Article 114.1.b); to "ensures the implementation in the Russian Federation of a unified state policy in the field of culture, science, education, health care, social security, ecology" (Article 114.1.c).

Russia has a dual administrative-territorial structure – the 'Federal Subjects of Russian Federation' (Subyekty Rossiyskoy Federatsii) and the 'Federal Districts of Russian Federation' (Federal'nyye Okruga Rossiyskoy Federatsii). Federal Subjects are constitutionally recognised constituent entities of Russian Federation. As per constitution, "Russian Federation consists of Republics (states), Krays (territories), 'Oblasts' (regions), 'Cities of Federal Significance', 'Autonomous Oblast', 'Okrugs' (districts) – all are the equal subjects of the Russian Federation" (Article 5). The administrative-territorial structure of Russian Federation is depicted in Figure No. 3.1 for comprehensive understanding. During the adoption of the constitution, Russia was consisted of 89 Federal Subjects. By 2008, territorial reorganisation leads many mergers and became a state of 83 Federal Subjects. Finally with the annexation of Sevastopol and Republic of Crimea, now Russia consists of 85 Federal Subjects. As of now "Russian Federation consists of 22 Republics, 9 Krays, 46 Oblasts, 3 Cities of Federal Significance, 1 autonomous oblast and 4 Autonomous Okrugs" (Article 65). 'The Constitution of Russia allows to have separate constitutions for the Republics and also separate Charters and legislations for Krays, for Oblasts, for 'Cities of Federal Significance', for Autonomous Oblasts and for Autonomous Okrugs' (Article



5). “Moscow is one of three cities of federal significance along with Saint-Petersburg and Sevastopol” (Article 65).

Figure No 3.1 – Structure of Russian Federation



Source: “Constitution of Russian Federation and Federal Law no 131-FZ of 2003”

Federal Districts are extra-constitutional geographical units created after the decree No. 849 of the President Putin ‘On the Plenipotentiary Representative of the President of the Russian Federation in the Federal District’ in 2000, and are different from Federal Subjects of Russian Federation. These are created for the implementations of presidential orders and decrees directly through federal bodies. Each federal district has represented by a presidential envoy who is appointed by the president, and their official title is “Plenipotentiary Representative of the President of the Russian Federation in a Federal District”. At the time of establishment, total seven federal

districts were existed and as of now the number stands is eight – “Central Federal District, North-West Federal District, North Caucasus Federal District, South Caucasus Federal District, Volga Federal District, Ural Federal District Siberian Federal District and Far Eastern Federal District” (Putin, 2000, 2010). Though the plan for territorial division was aimed at convenience in governance, ensure the implementation of constitutional power of the president, increase efficiency of the activities of the federal bodies, Petrov (2002) argues, these federal districts are strengthening central control over regions and making Russia a declarative democratic state.

### **3.3 Constitutional and Structural Provisions of Urban Local Governance: Post 1993 Russia**

After the dissolution of Soviet Union and before the adoption of Russian Constitution of 1993, the 1992 ‘Constitutional Commission’ got alternative draft constitutions with different versions of local self-governance. In this way, the long-time institutional debate of self-government - whether it is a social institution or institution of the state - was culminated after the adoption of Russian Constitution on 12 December 1993 (Yelstin, 1993c). Local governments are empowered by the constitution. Article 3 of the constitution describes local self-government bodies as the means of exercising people’s power. Article 12 states that “Local self-government shall be recognized and guaranteed in the Russian Federation. Local self-government shall be independent within the limits of its competence. Bodies of local self-government shall not form part of the system of State government bodies”. Article 34.4 of the 2003 Federal Law iterated the same and upholds the non-State character of the LSG body. Hence, article 12 clearly offers the independence to the LSG bodies. Local self-government bodies were opted out from the exclusive state jurisdiction. The Constitution asserts the position of LSG like a social institution rather an institution of state. This made ULBs to become independent within its limit. Article 15 and Article 18 affirms the local government bodies as legal bodies and directed to these bodies to oblige the ‘Constitution of Russian Federation’ and the laws of the land. Article 32 provides the “rights of the citizens of Russian Federation, to elect and to be elected to local self-government bodies and to participate in referendums”. Article 72 judicially “includes

the local government bodies within the joint jurisdiction of the Russian Federation and constituent entities of the Russian Federation”. The subsection, Article 72.2 “includes the cities of federal significance under joint jurisdiction”.

Chapter 8 – which contains four articles and seven clauses - of the Russian constitution entirely dedicated to the matters of local self-government? It relied on further federal laws for the question of the structure of the LSG bodies. Article 130.1 - “Local self-government in the Russian Federation shall provide for the independent resolution by the population of issues of local significance, and the possession, use and management of municipal property” - guaranties the local character in local governance; Article 130.2 - “Local self-government shall be exercised by citizens by means of referendum, elections and other forms of direct expression of their will, and through elected and other bodies of local self-government” - depicts the means of exercising power and grants local power to the people and to the local government bodies. Considering historical and local traditions, Article 131.1 - “Local self-government shall be administered in urban and rural settlements and on other territories with due consideration to historical and other local traditions. The structure of bodies of local self-government shall be determined by the population independently” - confers freedom to the people to determine the structure of the local government bodies. It is the basis of urban local self-government in Russian Federation. Like the princes during 12<sup>th</sup> century took permission from Veche to collect money to conduct war, Article 131.2 directs the “government to take the opinion of inhabitants in case of altering the borders”. Article 132.1 - “Bodies of local self-government shall independently manage municipal property, form, approve and implement the local budget, introduce local taxes and levies, ensure the preservation of public order, and resolve other issues of local importance” - confers self-sufficiency, self-sustenance, self-rule in political, social and economic matters. Article 132.2 - “Bodies of local self-government may be vested by law with certain State powers and accordingly receive material and financial resources which are necessary for their implementation. The implementation of the vested power shall be controlled by the State” - legally creates a dual function provision where local authorities are obligated to follow delegated task if the State wishes to. This article, as opposition to Article 12, portrays the LSG as the part of state structure. Article 133, with its dual

nature, protects the local government by legal means as well as puts the limits of local government.

Urban local bodies derive their authority from above provisions of the constitution and federal laws and decrees of the president. There are also special provisions for the Cities of Federal Significance. Article 5.2 bestows the cities of federal significance to have their own charter and legislation. Again, Article 66.2 asserts, “the status of the city of federal significance should be determined by the Constitution of the Russian Federation and the charter of the city of federal significance”. Article 72.1.a “upholds the jurisdiction within the joint jurisdiction of the Russian Federation and jurisdiction of cities of federal significance”.

The constitution, in 1990s, empowered the elected heads to take decisions on matters of budget, levying taxes, but still the subjects were deciding the structure of LSGs and the administrative representative of the subject had the major say in matters of budget and taxes also about local development programmes. LSG bodies were economically dependent largely on subjects. There were complaints that subjects keep larger share of collected revenue and municipalities get lesser to disburse day to day work (Lapteva, 1996).

The 1993 Constitution yielded the broader framework, but did not say anything about the uniform systems of organs of LSG. In 1994, elections were held throughout Russia for LSG representation. In 1995, “Federal Law no 154 FZ ‘On General Principles of Organization of Local Self-Governance in the Russian Federation’” established LSG as resident’s independent activity (Yelstin, 1955). It provided a comprehensive account regarding the structure of LSG, the right of citizens to exercise LSG, the legislative and economic powers of LSG bodies, defined the scope of LSG, the charter of municipality, the territorial limitation. But still there were no coherent structures throughout Russia. Indifferent regarding the territorial structure of LSGs, the law was ambivalent and assigned the subjects to decide it (Wollmann & Gritsenko, 2010, 230). As the power of the federal government during late-Yelstin era was declined, federal subjects made large number of legislatures including contradictory legislation to the constitution (p. 228). Plethora of LSG bodies emerged with diverse legal character and their powers varied considerably as different subject authority granted different power to LSG in their jurisdiction. Institutional heterogeneity persisted throughout Russia. Many subjects (forty six) adopted the

single tier 'Raion' (District) type system. In this system LSGs were established in the Raions leaving bulk of town and cities without any organs of LSG. Many (twenty) introduced single tier 'Settlement' (Poseleniya) type institution where LSGs were established at the level of towns and villages, and Raion level became the part of state administration. Others (twenties) adopted the two-tier LSG system (p. 230). Diverse character of LSG structure created legal complications. This wave of contradictory regional legislation brought the fear of secession and dissolution of the already bleeding federal government (De Silva, Galina, Golovanova, & Andreeva, 2009, 26). Russia has also ratified the European Charter of Local Self-Governance in 1998. The confusion and development of LSG bodies during 1990s has numerous reasons. There were steep economic crises, frequent alteration of political leadership at central government, continuity in chaos even after dissolution of USSR, declining power (of president Yelstin) at federal level. This also tilted the 'shared legislative power' towards regional level.

After his presidential victory of 26 March 2000 and with a desire to re-establish the Russian Federation as a strong state, Putin flexed the influence and control of federal government in regional as well as in local level. That resulted the tilting of 'shared legislative power' towards federal government. Clearly defined regulations laid down leaving lesser legislative scope for LSG. Like other parts of the world, the status of LSG, as a distinct, separate and autonomous body, always evokes the state vs social institutional debate. Wollmann and Gritsenko (2010) shows that the debate in international perspective is in between 'separationist' and 'integrationist' models of local government (p. 229). The former (separationist) argues the institutional separation at all levels of government, where the later (integrationist) contends for integration of all levels of government into the state structure.

"Federal law of 2003 N 131-FZ 'On the general principles of the organization of local self-government in the Russian Federation' has established the general legal, territorial, organizational and economic principles of the organization of local self-government in the Russian Federation and determined the state guarantee for its implementation (Putin, 2003)". This law unambiguously defines the structure as the combination of "a representative body of a municipality, the head of a municipality, a local administration (executive and administrative body of a municipality), a control body of a municipality" (Article 34.1). It also empowers the municipalities to decide

on the local concerns through their own charter. In accordance to Article 12 of the Russian Constitution, this law, through its Article 34.4, excluded LSG from the system of state authority and upheld the non-state status of LSG.

With an aim to streamline the LSG structure throughout Russia, the law has offered three kinds of LSG units. The law provides guidance for coherence in LSG institutions. According to Constitution of Russian Federation only two levels of government – Federal Government and Subjects of Federation – exists. Local governments are the independent layer of public authority, and they are not the subordinate governments. Figure No 3.1 is illustrating the details of structure of Russian Federation and above depicted structures could be understood in a comprehensive manner.

Article 11.1.6 directed to create ‘Poseleniya’ – kind of lower level municipality – in both rural (Selskie Poseleniya) and urban (Gorodskie Poseleniya) habitats where more than 1000 inhabitants live (for high density areas it is more than 3000). Raiony/ Munitsipal’nye Raiony (municipal districts) were formed as the upper level LSG unit. The third kind was Gorodskie Okruga (city district) which is established in urban and metropolitan areas as a single tier system. There was historical experience of exploitation of the LSG institutions and their power during the 1990s. So, 2003 law, as advocated by De Silva et al., assigned the subjects to implement the functionalities of LSG (De Silva et al., 2009). To resolve the uncertainty of exercising the power, 2003 law enumerated the ‘list of competencies’ which are bunch of works assigned to the local authority. The law slung out the unofficial ‘Matryoshka Principle’ of Soviet regime (Wollmann & Gritsenko, 2010, 234).

In a progressive shift, the duality of function prescribed in Article 132.2 of the Constitution is clarified and particularised in 2003 Federal Law. It restricted the delegated dual function of the state, only to the higher LSG bodies (municipality districts, and Gorodskie Okruga in case of single-tier urban/metropolitan area). Through article 36 and 37, it provided the distinction of the function of ‘Head of Municipality’ and ‘Head of Administration’. The task to streamline the structure of LSG was so mammoth that the initial take off date of the 2003 law - 1 January 2005 – had postponed till 1 January 2006 and then till 2009 (Young & Wilson, 2007, 1081).

### 3.4 Evolution of Urban Local Governance in Moscow

Moscow, where the communities previously called as ‘Kuchkov’ (according to the name of the land donor noble for the establishment of the city) and later renamed as Moscovy (according to nearby Moscow river), stood high today, witnessing the ups and downs of historical chronicles from 1147. A place of several historical monumental architecture has been the capital city several times - first in 1432, during 1547-1712 and from 12 March 1918 till now (“A glimpse into history,” n.d.).

The peculiar history of Moscow, in parallel with Russian history, has evolved politically as well as structurally. The evolution could be understood in a better manner with the evolution of Russian administrative-territorial evolution. The first ‘city plan’ of Moscow during 1596-1597, which was basis for other city plans, was designed under the Tsar Boris Godunov. With Peter’s ban on wooden houses and allowing only stone houses in 1700, and the St Petersburg and Moscow ‘Stone Construction Commission’ in 1762, had made the foundations of territorial and administrative structures of Moscow (“Urban Development Plan,” n.d.). Sytiln (1954) tells that Moscow was divided into 14 territorial divisions in 1767; in 1782 it was 20 divisions; in 1810 it was reorganised but still 20 parts; in 1852 it was divided into 17 parts; in 1916 it was divided into 17 urban areas and 7 suburban areas; in 1917 it was divided into 8 districts; in 1920 it was divided into 7 districts, in 1936 it was 23 parts; in 1960 it was divided into 17 parts; and in 1969 it was divided into 30 parts.

After the dissolution of USSR, Moscow became the capital of RSFSR. There was a transformation in structure of Moscow with the sense of local government. Administratively, Moscow was divided by 10 Administrative Okrugs and many ‘Municipal Okrugs’ with a two-tier administrative system (Popov, 1991). Further in 1995, after the law “On the territorial division of the city of Moscow”, the ‘Municipal Okrugs’ were replaced as ‘Okrugs’ (Districts); these structured Districts were the then units of LSG (Luzhkov, 1995). Law No. 56 of 2002 “On the Organization of Local Self-Government in the City of Moscow” had conferred more power to LSG. It made the administrative units and territorial units distinct. It established dual structure – administrative municipal structure and territorial municipal structure – as well as delimited the power to LSG institutions. The structure of LSG, its employees, the election procedure, authority etc. were now determined by the Charters of

Municipalities in accordance to the Charter of the City of Moscow (Luzhkov, 2002). After the territorial expansion of Moscow in 2012, Moscow became the home to 12 Administrative Okrugs; further divided into 125 Districts (Raions) and 21 Settlements (Poseleniyas) as units of LSG institution.

The 1785 decree of Catherine II - 'the instruments on the rights and benefits of the cities of the Russian Empire' - established 'City Duma' as the legislative organ of Government of Moscow. The then City Duma elected executive body which was consisted of Mayor and six councillors. The city reforms of Alexander II, in 1870, offered the city government the fervour of self-governance. Election was conducted for City Duma; 180 'Glasny' (members of town council) were elected; and the 'Uprava' (City Board) was elected as the executive body with 'Golova' (City Head) and his deputies. The turbulence of 1917 February Revolution brought universal voting rights and proportionate electoral system. This had established the Urban Local Self-Governance as the affair of the local and by the locals. But it could not sustain for long. Soon after communists took over the government, in November 1917, all forms of democratic election systems were suspended and the City Duma was dismissed. Throughout the communist regime the nominal 'Council of Workers' and 'Red Army Deputies' were at the helm of governance affairs ("History of the Duma," n.d.).

The Moscow Council was dismissed in 7 October 1993, but the presidential decree no 1738 'On Support of Measures of the Government of Moscow and the Moscow Region Council of People's Deputies on Reforming the Bodies of State Power and Bodies of Local Self-Government in Moscow and Moscow Region' of 24 October 1993 reintroduced the ULSG as the representative body of people. Subsequently, the Moscow City Duma, became the supreme legislative body, was established on the day of adoption of Russian Constitution with 35 deputies elected for four years. As of now, 45 deputies represent the people of Moscow in the supreme legislative body ("History of the Duma," n.d.).



### **3.5 Constitutional Provisions of Urban Local Governance for Moscow**

Article 65 of the Constitution of Russian Federation defines ‘Moscow’ as the ‘City of Federal Significance’ and the constituent entities of the Russian Federation. Article 70 - “The capital of the Russian Federation shall be the city of Moscow. The status of the capital shall be established by federal law” - authorises Moscow as ‘the capital of Russian Federation’. The same status was also adopted in the Charter of City of Moscow (Article 1.1 - 1.3). After the adoption of 1993 constitution, Federal Law No 4802-I of 15 April 2003 ‘On the status of the capital of the Russian Federation’, laid down the legal requirements for Moscow as the capital city (Yelstin, 1993b). After the direction of the 1993 constitution, the preparation for the ‘Charter of City of Moscow’ had been intensified. The Charter, expressing the will and interests of the residents of Moscow, was adopted as the basic law of the city in 28 June 1995. It asserts the exercise of self-government in the territory of Moscow (Article 1.5). It considers the residence of Moscow as the source of power in the city and affirms the exercise of power by the people through the state authorities of the city of Moscow and local governments (Article 4.1).

The Charter considers the LSG of Moscow as “an independent and self-responsible activity of the local community to address, directly or through local governments, local issues carried out within the framework of federal legislation, the Charter and the laws of the city of Moscow, charters of municipalities” (Article 6.1). Local governments in Moscow act “in accordance with the Constitution of the Russian Federation, federal laws, the Charter of the city of Moscow, the laws of the city of Moscow and the charters of municipalities” (Article 6.3). In accordance with federal laws and the laws of the city of Moscow, LSG is guaranteed by the Charter (Article 54-55) and guaranteed by the Charter guarantees the activity of LSG (Article 57). It reiterates the Article 12 of the Russian constitution that “Local governments are not included in the system of government bodies of the city of Moscow” (Article 7.3); and also it affirms that “Within the limits of their powers, the state authorities of the city of Moscow and local governments independently make decisions and are responsible for them” (Article 7.5). It enumerates the legal acts of Moscow as ) the Charter of the city of Moscow, 1) the laws on amending the Charter of the city of

Moscow; 2) the laws of the city of Moscow; 3) decisions of the Moscow Court of Justice; 4) resolutions of the Moscow City Duma; 5) Acts of the Mayor of Moscow; 6) Moscow Government acts; 7) acts of bodies and officials of the executive branch of the city of Moscow in cases established by law. Along with numerous powers, the power of Moscow includes “regulation of the organization of local self-government in accordance with federal legislation” (Article 13.1.4), and regulation of urban planning activities, solution of urban issues; and “the solution of urban environmental issues; environmental protection and environmental safety; landscaping; protection of historical and cultural monuments” (Article 13.1.10). The legislative power of Moscow is exercised by Moscow Duma where 45 deputies are elected for a term of five years (Article 33.1 – 33.3).

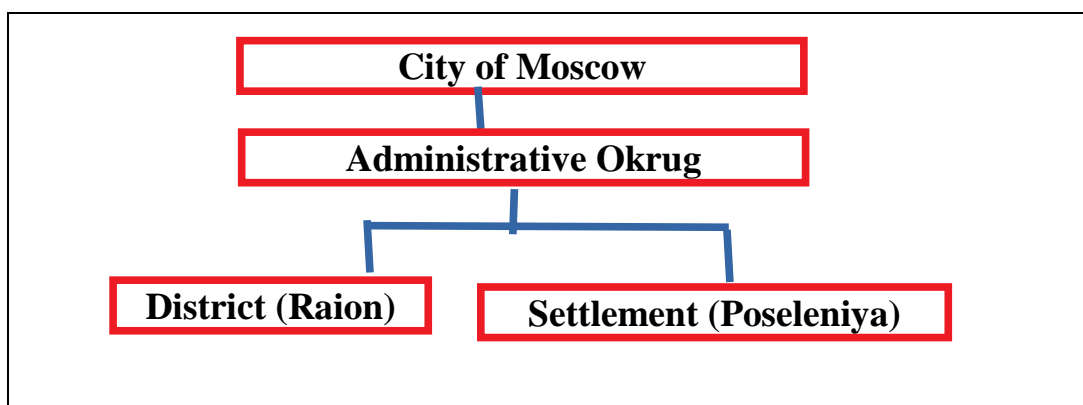
### **3.6 Administrative Structure of Moscow**

In executive matters, government of Moscow is the apex executive organization in Moscow city. ‘It ensures the coordinated activities of other executive bodies of the city of Moscow’ (Article 44.1). “Mayor is assigned as the head of the Moscow Government” (Article 44.2). “Moscow Government consists of the Mayor of Moscow, the Deputy Mayors of Moscow in the Moscow Government, and the Ministers of the Moscow Government” (Article 44.3). “Moscow Government consists of sectorial and functional executive bodies” (Article 45). Prefectures are the territorial divisions and these are headed by ‘Prefects’ who are executive authorities of Administrative Okrugs and they are carrying out coordinating as well as administrative and executive activities in those Administrative Okrugs (Article 46.2). City Councils are headed by the Head of the Councils, and these ‘Head of the Councils’ are the territorial executive authorities of Districts; and exercise the administrative, coordinative and executive activities in the territories of Districts (Article 46.3).

As one of the three ‘Cities of Federal Significance’ of Russian Federation, as one of the 85 constitutionally recognise Federal Subjects, and as the Capital of a Trans-Continental State, Moscow is situated in the ‘Central Federal District’ (Tsentralny Federalny Okrug) of Russian Federation. Author insists that the territorial structure of

Moscow municipality is very complicated (Glavatskaya, Mezentseva, & Serianova, 2005, 63). As it could be seen in Figure 3.2, the territorial units of Moscow are Administrative Okrugs (Administrative Districts), Raions (Districts), and Poseleniyas (Settlements) (Article 15.1). As of now there are 12 Administrative Okrugs which are further divided into 125 Districts and 21 Settlement (DTOIV, n.d.-c). Administrative Okrugs are part of the state administration, but Districts, unlike Administrative Okrugs, are local government entities and are non-state units (DTOIV, n.d.-c). Settlements came into existence after the expansion of territory of Moscow in 2012, which also included two Administrative Okrugs - Novomoskovsk Administrative District and Trinity Administrative District (Yegorova & Mishina, 2014).

Figure 3.2: Structure of Moscow



Source: DTOIV, Government of Moscow

For administrative convenience, the capital city is divided into 12 territorial units known as Administrative Okrugs – “Central Administrative Okrug, Northern Administrative Okrug, North-Eastern Administrative Okrug, Eastern Administrative Okrug, South-Eastern Administrative Okrug, Southern Administrative Okrug, South-Western Administrative Okrug, Western Administrative Okrug, North-Western Administrative Okrug, Zelenogradsky Administrative Okrug, Novomoskovsky Administrative Okrug and Troitsky Administrative Okrug”. The executive body of an ‘Administrative ‘Okrug’ is known as ‘Prefecture’ which coordinates the executive-administrative activities in the territory of the Administrative Okrug. In a similar note,

executive power in district is exercised by the 'City Council'. There are 12 Prefectures but administered by 11 Prefects, and also 125 City Councils with their executive heads are exercising the administrative activities in different Administrative Okrugs and Districts (DTOIV, n.d.-a, n.d.-b).

### **3.7 Constitutional and Structural Aspects of Bharat**

After duration of 2 year 11 month and 18 days, the Constitution of Bharat was adopted by the Constitutional Assembly on 26 November 1949 (Rajya Sabha, n.d.). With 395 Articles, 22 Parts and 8 Schedules at the time of its enactment, the Constitution of Bharat is the most bulky, longest, detailed Constitution; and highest law of the land. It declares Bharat as a democratic and republic state (Basu, 2018; Chakrabarty & Pandey, 2008; The Constitution of India, 2018).

Structurally, the state authority in Bharat is distributed among the 'Union Government', the 'State Government' and the 'Local Government'. The Seventh Schedule in accordance with the Article 246 of the constitution provides a range of subjects for legislation with three different lists – 'Union List' (97 items), 'State List' (66 items), 'Concurrent List' (47 items) – where the Union Government has legislative authority on the Union List, the State Governments have the legislative authority on the State List and both governments have the legislative power to make laws in relation to the subjects fall under the Concurrent List.

The Constitution of Bharat is the most detailed constitution as it enumerates three organs of government – legislative, executive, judiciary – in detail; and describes distinctly the relationship among the organs. At the legislative front, the 'Parliament of Bharat' is the supreme body for legislation. It consists of the President of Bharat and a bicameral assembly where 'Rajya Sabha/Council of States' is the upper house of the assembly represents the states with 250 members and Lok Sabha/House of the People is the lower house of the assembly with 552 members (Article 80, 81, 331). President is the head of the legislature and exercise his/her powers only upon the advice of the 'Prime Minister' and his 'Union Council of Ministers' (Article 74). The highest judicial body is 'Supreme Court'; 'High Courts are in lower rung to the Supreme Court; and Subordinate Courts (District Courts and other lower courts under

High Court) are at the lowest rung of judicial authority (Article 124, 214, 215, 216, 233, 235).

In Bharat executive authority is distributed among many heads. The executive affairs are distributed among the three tiers of government – Union Government State Government, Local Government – as well as the respective ministries and departments. The administrative apparatus - comprises of huge number of civil servants, technocrats, experts – actually helps the ministers in formulation and implementation of policies (Rajya Sabha, n.d.). The central executive authority is the sum of the ‘President’, the ‘Vice-President’, the ‘Attorney General’ and the ‘Council of Ministers’. ‘Prime minister’ heads the council of ministers. It comprises ‘cabinet ministers’, ‘ministers of states’, ‘deputy ministers’ and ‘parliamentary secretaries’. Central Secretariat, where almost all the ministries and its department reside, is responsible for formulation of policies. The Cabinet headed by Prime Minister holds the real executive power. Authors argue that the President is only nominal head; and the actual head of legislature and executive is the Prime Minister with his/her Union Council of Ministers (Dam, 1966; B. M. Sharma, 1950; M. P. Singh, 1995). Each ministry has their executive organisations to implementation of the policies formulated by the ministries. As Tottenham observed in his Report on the Reorganisation of the Central Government 1955, “The function of the minister is to decide policy, of the Secretary to provide the material on which to reach such decisions, and of the executive head to carry the decisions into effect. On the analogy of the human machine, the minister would represent the will, the Secretary the brain and the executive head the hands (Arora & Goyal, 1995, 151)”. The President is the head of the state and head of the executive power. All the executive power is vested in him and all executive actions are taken in his name (Article 52 – 72). The state governments have a similar though not exact structure of administration for executive affairs. In a similar fashion executives of the State Government are consists of the Governor, the Advocate-General and the Council of Ministers (Article 153 - 167). The State Secretariat is responsible for formulation of policies and the respective executive departments are at the helm of implementing those policies.

The seventh largest country in the world, Bharat, has dual administrative-territorial structure – Zonal Councils, States and Union Territories. There six Zonal Councils which are advisory in nature and were originally meant to develop the habit of

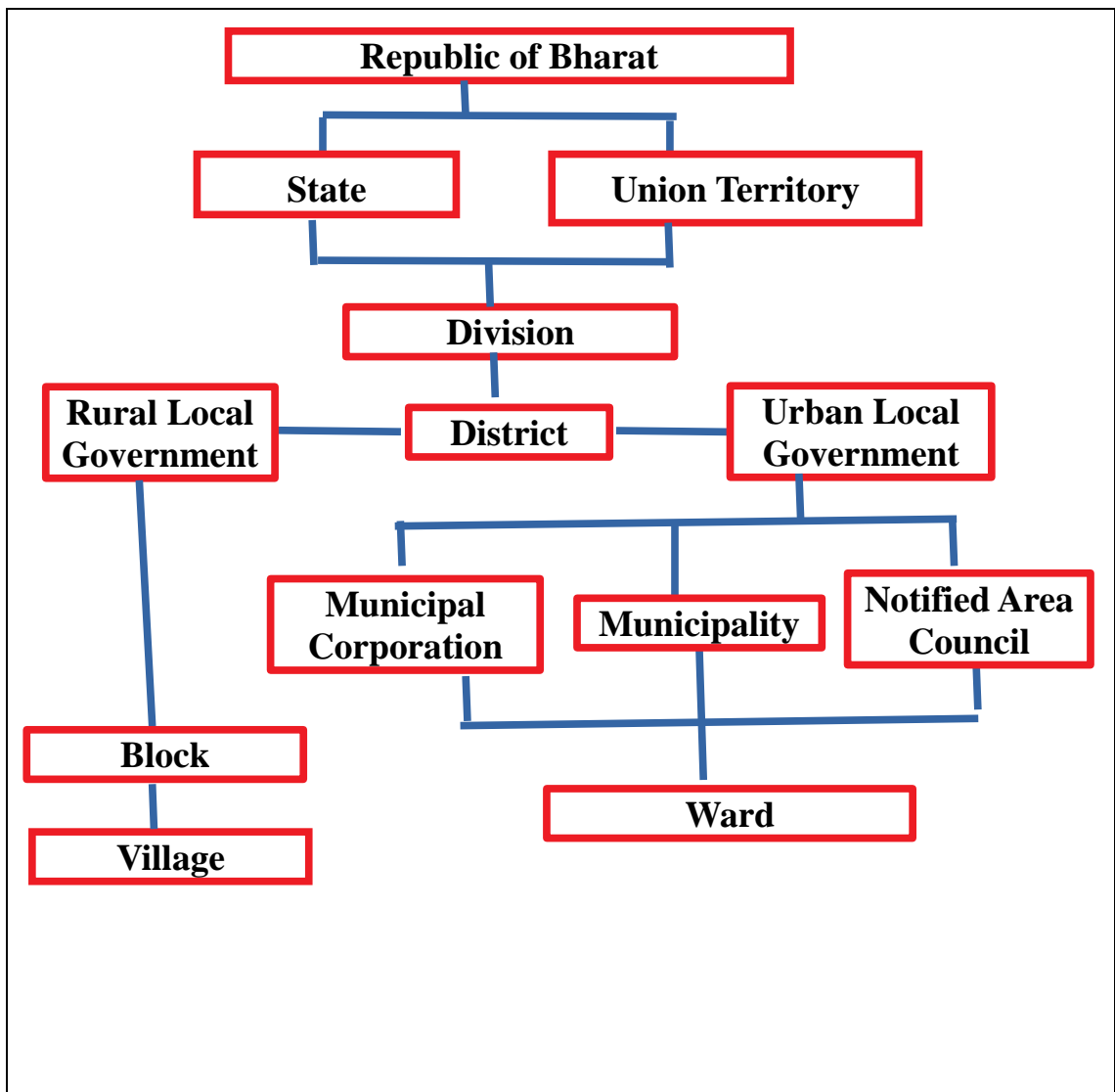
cooperative working among the states and extra-constitutional bodies. Though Zonal Councils are demarcated according to the territory, these have more political, economic and social features rather any administrative feature. The “objectives of Zonal Councils are:

- a) Bringing out national integration;
- b) Arresting the growth of acute State consciousness, regionalism, linguism and particularistic tendencies;
- c) Enabling the Centre and the States to co-operate and exchange ideas and experiences; and
- d) Establishing a climate of co-operation amongst the States for successful and speedy execution of development projects (MHA, n.d.).”

At the time of adoption of the Constitution, the administrative-territorial structure of Bharat was divided into different class of territories. The First Schedule, which detailed about the different class of territories, distinguished four types of territories in four Parts. Part A and Part B contained 9 states each, Part C contained 10 states and Part D contained only one state (*Constitution of Bharat, 1956*). After the linguistic movements sprouted throughout Bharat, with the recommendation of State Reorganisation Commission of 1953, the States Reorganisation Act of 31 August 1956 in Seventh Constitutional Amendment abolished the existing distinction of Part A, Part B, Part C, Part D; and created two new kinds of territorial division namely the States and the Union Territories (*Ministry of Law, 1956; Sharma, 1995*). Figure No 3.3 has clearly illustrated the administrative-territorial division of Bharat. As of now, the State of Bharat is divided into 29 States who have their own Legislative Assemblies and administrative apparatus, at the same time 7 Union Territories are being administered by the union government directly (*Ministry of Law, 2018, 162 -- 166*). Districts are basic territorial administration unit of states and union territories in Bharat. In hierarchical order Division is the lower hierarchy to the state administration and higher administration to district administration; and consists of four to six districts for administrative convenience. “A District Collector/ Deputy Commissioner/ District Magistrate is the head of the district and representative of the state administration in the respective district (*Laxmikant, 2014*).” As of now 723 Districts are combining the administrative territory of Bharat.

In a similar note of territorial division, ‘Districts’ are divided into ‘Sub-divisions’, sub-divisions are divided into ‘Tehsils’, ‘Tehsils’ are divided into ‘Circles’, and ‘Circles are divided into the lowest territorial unit called ‘Villages’ (“Local Government Directory,” n.d.). The Hierarchy could be seen from Figure No. 3.3. With the passing of 73<sup>rd</sup> and 74<sup>th</sup> Constitutional Amendment Act, LSG bodies got constitutional safeguard and became the unit of administration.

Figure No. 3.3 Administrative-Territorial Structure of Bharat



Source: Constitution of Bharat

### 3.8 Evolution of Urban Local Governance in Bharat

As Possehl (2002) asserts ancient Bharat history was spanned from nearly 7500 B.C. and full of planned urban history (pp. 1-84). As the home to the ancient civilisation, Bharat has ancient history of urban governance, explicitly during the mature Harrapan period at Rakhigarhi, Dholavira, Kalibangan, Ropar, Lothal, Harappa, Ganeriwala, and at Mohenjo-daro. From the Neolithic period of Bhirrana, Mehrgarh, during Sindhu-Saraswati (Indus Valley) Civilisation which spanned over 1022 cities and settlements (Singh, 2008, 137), during Vedic period, during the period of Mahajanapad, during Mauryan Empire, during Gupta Empire; subsequently Kingdom of Kalinga, Pala Empire, Rashtrakuta Empire, Gurjara-Pratihara Empire, Chalukya dynasty, Chola dynasty, Pallava dynasty, Chera dynasty, Pandyan dynasty; in later Delhi Sultanate, Vijaynagar, Gajapati, Ahom, Mughal, Maratha, Sikhs, East India Company have different urban governance patterns throughout the history. In a similar note, Thakur (1981) and other authors argue that Bharat went through the 'Second Urbanisation' phase during Iron Age, with extensive patterns of urban governance (Childe, 1950; Feuerstein, Kak, & Frawley, 2005; Naveed, 2014; Rao, Sahu, Sahu, Shastry, & Diwan, 2005; Sarkar et al., 2016; A. Singh et al., 2017; Wright, 2010).

The first evidence of LSG body, known as Sabha, which was the institution of grassroot governance, is found in the oldest text of human civilisation, Rigveda (Nehru, 1989, 288; Sharma, 2012, 87-132; Udgaonkar, 1969, 204). Mention of highly organised LSG institutions are found in the epics of Ramayana, Mahabharat, Upanishads, in writings of Manu and in Arthashastra of Chanakya. There existed several forms of LSG such as Nigam, Pauga, Gana during Ramayana and Mahabharat period (Sachdeva, 1993; *Statistical Year Book India: Local Bodies*, n.d.). Meghasthenis accounts the existence of ULBs of 3<sup>rd</sup> century BC in Bharat where cities were divided six administrative units (Clarendon Press, 1909, 282). As mentioned above, all the major kingdoms and republics had different LSG bodies throughout the history of Bharat.

Describing each village as a little republic, Gandhi, in his vision of 'Gram Swaraj', vividly 'proposed for a robust Village Panchayat System'. He advocated the 'Panchayati Raj system as a decentralised form of government where each village



would be responsible for its own affairs and villages would be the foundation of political system of Bharat (Gandhi, 1962).” Though during constitutional debate, there were proposal to make village as unit of state administration, it was outrightly rejected by the drafting committee chairman, Dr. Ambedkar (*Constituent Assembly Debates (Proceedings)- Volume VII, 1948*).

The contemporary form of LSG is the imprint of ‘compelled decentralisation’ which occurred after the 1857 uprising against the British rule and the subsequent Lord Mayo’s resolution 1870 for decentralisation of power. Bharat has experienced Municipal Governance in 1687, when Madras Municipal Corporation is constituted. But urban governance was strengthened through ‘Lord Mayo’s Resolution of 1870’, ‘Lord Ripon’s Resolution of 1882’, and ‘Hobhouse Commission on Decentralisation on 1907’ (Maheshwari, 2004).

There was no constitutional support for ULSG bodies in original 1950 Constitution as it put LSG in purview of State Governments without any legal backing and put the subject of LSG in ‘Directive Principles of State Policy’ (Article 40). Soon after the First Five Year Plan, it was felt to increase the efficiency in the working of the ‘Community Development Programme’ (1952) and the ‘National Extension Service’ (1953). The ‘Balvant ray Mehta committee’ was assigned to examine the working of CDP and NES. As the committee realised the inevitability of Village Panchayats, it recommended for ‘democratic decentralisation’ which pioneered LSG institution in rural area (*Balvantray Committee Report, 1957*). Unlike, RLSG, ULSG got prominence during Third Five Year Plan (*Third Five Year Plan, 1961*). The Plan emphasized strengthening municipal administration to provide civic services and to solve civic matters (Chapter 33).

The landmark of evolution of ULSG was witnessed in the year 1985, with the creation of Ministry of Urban Development and National Commission on Urbanization. The rejection of ‘Village Panchayats’ in Constituent Assembly was considered as anachronistic. There was an increased realisation for the constitutional provision of local bodies during 1990s. Though ULSG institutions were existed throughout Bharat during these period, but the variation in size, structure, function, and subjugation by state governments in matters of political domination, opaque finance distribution etc. lead to the legalisation and constitutionalisation of ULSGs with a nearly coherent structure and certain financial distribution, through the 74<sup>th</sup>

Constitutional Amendment Act of 1992. It has separated the RLSG and ULSG into distinct LSGs with 73<sup>rd</sup> Constitutional Amendment Act for RLSG and 74<sup>th</sup> Amendment Act for ULSG. Though not uniform throughout Bharat, for 253398 villages, there are 253398 RLSG bodies, 6613 intermediate panchayats, 630 district panchayats; and for city areas 4449 ULSG bodies leading the largest democracy of the world (“Local Government Directory,” n.d.).

### **3.9 Constitutional and Structural Aspects of Urban Local Governance in Bharat**

After 74<sup>th</sup> Constitutional Amendment Act of 1992, urban governance got the special place in Part - IXA of the Constitution. In the ‘Statement of Objects and Reasons’, the act emphasizes the shortcomings of the then existing local bodies. Highlighting the reasons such as “the failure to hold regular elections, prolonged supersessions and inadequate devolution of powers and functions” of weak local bodies, the act tried to amend those shortcomings (MHRD, 1992). Certainty of election before a period of six months from the date of the dissolution of Municipality, and a fixed period of five year duration empowered ULSG bodies. Unlike previously, the “‘State Election Commission’ is assigned for superintendence, direction and control of the preparation of electoral rolls for, and the conduct of, all elections to the Municipalities (Article 243 U, 243 ZA).” This ensures the regular conduct of elections in an uninterrupted manner. It also protected the misuse of state administration which frequently dissolved the LSG bodies according to its will. The Constitution vividly delineates three types of ULSG bodies: ‘Nagar Panchayat’ for an area in transition from a rural area to an urban area; a ‘Municipal Council’ for a smaller urban area; and a ‘Municipal Corporation’ for a larger urban area. It also delineates ‘Metropolitan area’ as an area having a population of ten lakhs or more (Article 243 P-Q). The constitution provides two kinds of popular representation for ULSG: (a) elected representatives, who shall be elected directly by the people from the territorial constituents known as ‘Wards’; (b) “Persons having special knowledge or experience in municipal administration without the right to vote in the meetings of municipality; The members of the Lok Sabha and the state legislative assembly representing constituencies that comprise wholly or partly the municipal area; The members of the

Rajya Sabha and the state legislative council registered as electors within the municipal area (Article 243 R)”. It also reserves seats for least represented population which is an political inclusive notion (Article 243 T). In Article 243 W, the Constitution confers the “ULSG power and authority for

- (i) The preparation of plans for economic development and social justice;
- (ii) The performance of functions and the implementation of schemes as may be entrusted to them including those in relation to the matters listed in the Twelfth Schedule (p. 97).”

This eventually invokes the notion of self-governance, devolution of power and responsibility to the lower rung of administration. Through the legislature of the state, it authorises Municipalities to levy, collect and appropriate such taxes, duties, tolls and fees. At the same time, “the ‘State Finance Commission’ reviews the finance position of the Municipalities, and recommends the distribution of fund between the State and the Municipality (Article 243 X-Y)”. This outlays the financial support through constitutional means and thus the ULSG bodies enjoy a greater degree of fiscal autonomy. It discarded all the provisions of previous laws which were inconsistent to the Part IXA.

The Constitution (Seventy-Fourth) Act, 1992 is the primary legal act which incorporated in Constitution as Part IXA and provides the basis of urban governance in Bharat. Based on this Part of the Constitution, The Ministry for Housing and Urban Affairs (MoHUA) formulates and implements urban policies such as Smart City Programme, Swachh Bharat Mission, Deendayal Antyodaya Yojana National Urban Livelihood Mission, Atal Mission for Rejuvenation and Urban Transformation (AMRUT) and many more (MoHUA, n.d.). The implementing agencies are the departments of the MoHUA as well as the ULBs.

### **3.10 Evolution of Urban Local Governance in Delhi**

With the up streams and down streams of history, Delhi - which is officially known as the ‘National Capital Territory of Delhi’ (*The Constitution (Sixty-Ninth) Amendment Act, 1991*), has been home to numerous tribes, dynasts, emperors and invaders; now stands as the Capital of Republic of Bharat. The history spans from the age of the epic

Mahabharat, when it was the Capital city of the Pandavs and known as 'Indraprastha' (Singh, 2006, 77 - 118). It was the part of the ancient urban civilisation of Harappan (pp. 29-40). It has been capital of various kingdoms, dynasts, empires. It has been captured, recaptured, demolished, rebuilt; has been the Capital City for several times. The urban governance in Delhi has been experienced through the administrations of the Tomars, the Chauhans, the Delhi Sultanate, the Lodis, the Khiljis, the Tughlaqs, the Marathas, the Mughals, and the British (Frykenberg, 1986). The evolution of contemporary urban governance of Delhi can be traced parallel to the evolution of urban governance in Bharat. History of urban governance in Delhi can be dubbed as a recent phenomenon in comparison to cities such as Madras which got the Municipal Corporation in 1687, Bombay and Calcutta where Municipal Corporation was founded in 1726. The city was nearly deserted after 1857 mutiny and subsequent siege by East India Company. Only after 1911, when the city became the Capital City, urban governance in Delhi took pace with time (Dalrymple, 1993, 2006; Gupta, 1998).

After the adoption of Constitution in 1950, Delhi holds the title of Capital City. In 1952 the Delhi Legislative assembly consisted of 48 members. It became an 'Union Territory' after the 'State Reorganisation Act, 1956' (Ministry of Law, 1956). The Delhi Legislative Assembly and the Council of Ministers were abolished and administration of Delhi came directly under the President. It was still administered as per the provisions of 'Punjab Municipal Act, 1911'. The State Reorganisation Commission recommended the setup of Municipal Corporation in Delhi as a matter of urgent need. Hence, the 'Delhi Municipal Corporation Act, 1957' has created the Municipal Corporation in whole Delhi with all members were elected members. As the public pressure mounted to establish a democratic government, the Delhi Administration Act, 1966, established Delhi Metropolitan Council – the highest elected body of Delhi, an Executive Council, and Lt. Governor was appointed by president as the Administrator. The Metropolitan Council was a unicameral Democratic body. It consisted of 56 elected members and 5 nominated members by the president. Executive Council consisted of one Chief Executive Councillors and three Executive Councillors. Lack of legislative powers of Delhi Metropolitan Council and increased public demand for a full-fledged State Assembly with Council of Ministers to aid and advice the Lt. Governor forced the Union Government to set

up ‘Sarkaria Committee’ in 1987. The committee later known as Balkrishnan Committee, submitted in 1989, ‘recommended the continuance of the status of Union Territory for Delhi and a Legislative Assembly and a Council of Ministers responsible to such Assembly with appropriate powers to deal with matters of concern to the common man’ (“Delhi Metropolitan Council,” n.d.; “Post-Independence Delhi,” n.d.). The Constitution (Sixty-Ninth) Amendment Act, 1991 was the manifestation of this recommendation.

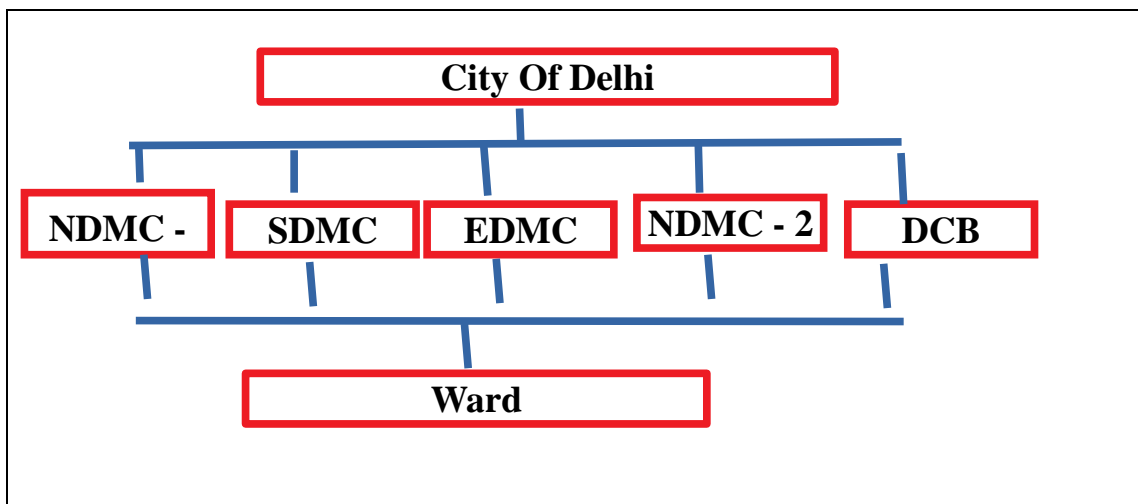
With the 74<sup>th</sup> Constitutional Amendment Act, 1992, urban governance, throughout Bharat, has seen a paradigmatic shift. The Act instructed states to further legislate laws related urban governance. In 1993, the land mark ‘The Delhi Municipal Corporation (Amendment) Act, 1993’ became the principal act for matters of urban governance in Delhi.

### **3.11 Constitutional and Administrative Provisions of Urban Local Governance for Delhi**

Delhi, after the ‘State Reorganisation Act, 1956’, became a Union Territory. It also enjoys that status till now. It is also described as a state in different articles of the constitution (Article 54 – 55). In accordance with the recommendations of the ‘Balakrishnan Committee’ (previously known as ‘Sarkaria Committee’), the ‘Constitution (Sixty-Ninth Amendment) Act, 1991’ was enacted. In a major constitutional support, Delhi, got the ‘special status’ among the Union Territories. The Act inserted Article 239 AA and Article 239 AB in the Constitution for providing a Legislative Assembly for Delhi. Another comprehensive legislation ‘The Government of ‘National Capital Territory of Delhi Act, 1991’, enacted and supplemented the Constitutional provisions (“Present form of Delhi Assembly,” n.d.; *The Government of National Capital Territory of Delhi Act, 1991*, 1992). Delhi (including Puducherry), unlike other Union territory, has partial statehood, with a Legislative Assembly and executive Council of Ministers responsible to Legislative Assembly. Delhi assembly currently consist 70 elected members and like other state legislatures, members of Delhi legislative assembly are chosen by direct election from territorial constituencies. Article 324, 326, 327, and 329, which apply in relation to states, also apply to Delhi. Delhi Legislative Assembly is bears the power to make laws with

respect to matters enumerated in State List and Concurrent List except the “Entries 1, 2 and 18 of the State List and Entries 64, 65 and 66 of that List in so far as they relate to the said Entries 1, 2 and 18” (Article 239 AA). The clash between the Union Government and Delhi Government regarding the executive position was cleared after the verdict in the case of Govt. Of NCT of Delhi vs Union Of India on 14 February, 2019. The verdict curtailed the independent decision making power of Lt. Governor. It also conferred the legislative power to Delhi Legislative Assembly in matters of State List and Concurrent List except police, public order and land (SCI, 2019).

Figure No 3.4



Sources: NDMC – 1, SDMC, EDMC, NDMC – 2, DCB

As Sahoo points, “Delhi is probably the only capital city where the elected government has no organic link with the municipal bodies” (Sahoo, 2018, 30). He also points out that it is the Union Government through the urban development ministry administratively controls the Municipal Bodies. With the trifurcation of Municipal Corporation of Delhi (MCD) in 2012, structurally, 11 Districts of Delhi are distributed among five Municipalities namely “(1) North Delhi Municipal Corporation (NDMC - 1), (2) South Delhi Municipal Corporation (SDMC), (3) East Delhi Municipal Corporation (EDMC), (4) New Delhi Municipal Council (NDMC -

2), and (5) Delhi Cantonment Board (DCB).” The structure of Delhi is shown in Figure 3.4 for a comprehensive understanding. As there are five Municipalities in Delhi, three Corporations – “North Delhi Municipal Corporation (NDMC), South Delhi Municipal Corporation (SDMC), and East Delhi Municipal Corporation (EDMC)” - are governed as the provision of ‘The Delhi Municipal Corporation Act, 1957’ with a comprehensive provision of ‘The Delhi Municipal Corporation (Amendment) Act, 1993’. ‘The New Delhi Municipal Council Act, 1994’ delineates the structure and function of NDMC - 2. It is a wholly nominated thirteen membered body. Delhi Canton Board comes under Ministry of Defence. A civil servant takes charge as the Chief Executive Officer and a nominated executive pattern.

The three Municipalities of Delhi, which were previously part of a single Delhi Municipality, are further divided into ‘Zones’ and ‘Wards’ and ‘Colonies’ to provide civic services. But the lowest unit of ULSG in Delhi is a Ward. The NDMC – 1 consists of 7 Zones, 119 Wards and 1156 Colonies. The SDMC consists of 5 Zones, 152 Wards and 1038 Colonies. The EDMC consists of 3 Zones, 74 Wards and 469 Colonies. The DCB consists of 8 Wards. As the lowest unit of ULSG, a ‘Ward’ has the peculiar local character as it connects directly to people and manages most of the local affairs.

### **3.12 A Comparative Analysis of Constitutional Provision of the LSG of Russia and Bharat**

Before going for a detailed comparison, it should be reminded that Russia is a typical Hobbesian State. Here, one can perceive people have unlimited freedom and the State has unlimited power. In Russia, the laws regarding LSG are applied simultaneously to the RLSG and to the ULSG institutions. The LSG bodies draw their power mostly from the 2003 constitutional document and from the 2003 federal law. Other court orders, decrees, laws, government orders assist and strengthen the existing provision. LSG bodies in Russia are independent within the limit of its competence. LSG has got a non-state status in the lines of ‘separationist’ view of local government, though the constitution did not specify it as a societal institution. It falls in between state and society, mostly has an NGO character. LSGs in Russian Federation are the means of exercising people’s power with tools such as voting and referendum. Organs of LSG

are not part of the organization of state organs. Only article 132.2 provides a dual provision with respect to function. These were not expected to perform any state function unless specified and directed by the agencies of state power. These bodies fall under the joint jurisdiction of the Russian Federation and the Subjects of the Russian Federation. Referendum is the form of direct democracy is key feature to Russian Constitution which is bound by law. Interestingly, to change the name of city of Volgograd to its previous name Stalingrad, many communists in Russia have petitioned to the President of Russia. But the president answered that it's a matter of local importance and can be only done through local referendum. A direct election for Mayor and 'right to recall' is legal in Russia.

Both the constitutions back legally and guaranty the LSG as legal body. Both constitutions dedicate a chapter for local government. The Russian Constitution dedicates its 8<sup>th</sup> Chapter whereas the Constitution of Bharat dedicates Part IX for local government. In context to legislative power, both have laid down extensive regulations giving a little room for LSG bodies. In matters of territorial structural setting both countries have demarcated and defined boundaries for LSG. In matters of function LSG in Russia have constitutional dual character but not in case of Bharat. In case of governmental notion, LSGs are not part of State structure in Russia whereas these are integral part in case of Bharat. In this sense, Russia adopts the separationist model of LSG and Bharat goes for integrationist model of LSG.

### **3.13 A Comparative Analysis of Administrative Structure of Moscow and Delhi**

Structurally, LSG institutions are different in Moscow as well as Delhi. In Moscow, LSG institutions are not part of state structure. In a peculiar instance, administrative and territorial structures do not always coincide. Moscow has 12 Administrative Okrugs but has 11 Prefectures. In Delhi, Five Municipalities are spanned over 11 administrative districts.

Like the Russian State during 1990s, there were also chaos in Bharat regarding the structure and function of LSG before the 74<sup>th</sup> Constitutional Amendment Act. After the enactment of the Act in 1992, ULSG bodies, though not uniform, but became structurally similar. In matters of legislation and executive power these bodies have



larger scope in comparative to Moscow. Again these LSG bodies are directly controlled by different Union Government Ministries, unlike in Moscow where ULSG bodies are not part of state organ.

As local governments in Russia are the part of regional government, there is no coherent structure of Russian LSG bodies. Though it has constitutional support, it does not have broader scope within its limits. The limited legislative, executive and financial scope makes these LSG institutions toothless lions. In a nearly similar situation, there are incoherent structures of organs of LSG in Bharat. But, certain structures like either three-tier or two-tier LSG institutions are prevailing throughout Bharat. The Russian people have greater political power at local government but in Bharat LSG bodies assigned with real local issues with constitutionally supported executive body as well as provision of fiscal decentralisation.

In a peculiar structural difference, executive in Moscow lies with Moscow Mayor, but In Delhi, executive power is exercised by three Mayors of the three Corporations, and by two Chief Executives from NDMC – 2 and DCB respectively.

### **3.14 Conclusion**

Often, state governments in Bharat and Subjects in Russian Federation have misused their power to suppress the LSG bodies. There were uncertainty in elections, financial obstruction towards LSG were regular phenomenon. In words of Lord Acton - “Power corrupts and absolute power corrupts absolutely” - the regional governments paved the way for LSG institution only after the constitutional support in both the countries. No similarity is found at the local self-government level in context to waste management.

The chapter has described the territorial, administrative and executive bodies who are either associated with the policy formulation or implementation of policies. This chapter has detailed the administrative-territorial division keeping in mind as the unit of implementation of policy decisions. The bedrock of the next chapter would be the public policy comparison in relation to ‘Waste Management’ and the function of the concerned aforementioned institutions to mitigate problems arise out of waste. The chapter would depict the evaluation of urban governance through the parameters such

as urban policies and institution in relation to waste. That is why; this chapter has tried to make comprehend the executive component of administrative-territorial units of LSGs to handle problems of waste related problem.

# **Waste Management: A Comparative Study of Moscow and Delhi**

“Everyone must be his own scavenger”

- M. K. Gandhi

Waste is the hurdle for urban civilisation. Piling of wastes causes encroachments of public roads which affect day to day public transport. Diseases carrying vectors like flies and mosquitoes breeding proliferates and also causes outbreaks of epidemics. It creates blockage in drains, and sewage became defunct due to waste. It affects health, socio-economic condition, environment and the habitat we live. Non-disposed hazardous waste is endangering the environment, human habitat and human health. Improper waste management has extreme health and environment consequences. Concerned with the fact that both the Capital Cities - Moscow and Delhi – are bleeding due to waste related problem, this chapter tries to analyse the policies adopted/employed in these cities to get rid of waste related problem.

The previous chapter has analysed the executive structures, which are the units for implementing the policies, of both Russia and Bharat; that also discussed the same in context of Moscow and Delhi. The previous chapter has analysed the synthesis of the administrative-territorial structures at the federation level and at the city level ULSG bodies with an objective to understand the constitutional, legislative, and implementing provision enshrined in both the countries. This chapter will provide a comprehensive understanding of waste its generation and classification. Focusing on urban waste, ‘Waste Management’ will be the major discussion point here. There will be discussion of public policies of Moscow and of Delhi regarding ‘Sustainable Waste Management’. This chapter, recognising the fact that mega cities are the major producers of waste, will elaborate and discuss how the structure of Moscow and Delhi are functioning to mitigate the future danger which arises due to waste.

## 4.1 Waste Definition and Classification

Wastes are discarded substances which are declared unfit for further use. Any substance is proposed to be disposed of or is disposed of is called waste. Waste refers to “any solid, liquid or gas, or any combination of them, that is a surplus product or unwanted by-product of any activity, whether the product or by-product has value or not” (DSEWPC, 2012, 5). Based on the impact of substance, waste is understood as “any substance (whether solid, liquid or gaseous) that is discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an alteration in the environment” (p. 5). Depending on the use of substance, waste is “any discarded, rejected, unwanted, surplus or abandoned substance, whether or not intended for sale, recycling, reprocessing, recovery or purification by a separate operation from that which produced it” (p. 5). Wastes, as defined in ‘Basel Convention’, are “substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law” and management (of waste) is defined as “ the collection, transport and disposal of hazardous wastes or other wastes, including after-care of disposal sites” (UNEP, 1989, 10). Waste Directive Framework (WDF) of European Union (EU) defines waste as “any substance or object which the holder discards or intends or is required to discard” (EU, 2018).

Proper management of waste requires proper classification of waste. Waste stream consists of millions different waste items. Depending on environmental friendly character, Wastes are classified into ‘Biodegradable (Organic) Waste’ and ‘Non-Biodegradable (Inorganic) Waste’ (DSEWPC, 2012). Biodegradable wastes are environmentally friendly substance which decompose to ground and have less adverse effect. Food wastes, grass, leaves, wood etc. comes under this category. But now, the amount of biodegradable waste is so huge that the decomposition process is not in pace with time. Non-Biodegradable wastes are those that take many years to degrade. These wastes require special attention and improved waste management system for processing.

Depending upon physical state, wastes are classified into ‘Solid Waste’, ‘Liquid Waste’ and ‘Gaseous Waste’ (ISO, 2015, 28-29). From among all these wastes, solid

waste shares the major chunk of total wastes generated. Solid waste, according to United Nations glossary is “useless and sometimes hazardous material with low liquid content. Solid wastes include municipal garbage, industrial and commercial waste, sewage sludge, wastes resulting from agricultural and animal husbandry operations and other connected activities, demolition wastes and mining residues” (UNSD, 1997, 69). All most everywhere, the managing of waste primarily focus on solid waste management. From among various methods of classification, most adopted classification of solid wastes is on the basis of the source of their generation. These are Residential Waste, Industrial Waste, Commercial Waste, Institutional Waste, Construction and Demolition Waste, Municipal Waste, Biomedical Waste and Agricultural Waste.

The definition of MSW varies among countries, among institutions and international organisation. United Nations Conference on Environment and Development (The Earth Summit) in 1992 defined Municipal Solid Waste (MSW) as “all domestic refuse and non-hazardous wastes such as commercial and institutional wastes, street sweepings and construction debris” (UNCED, 1992). In many countries ashes from incinerators, septic tank sludge and sludge from sewage treatment plants are also considered as solid waste. But it was specified as hazardous waste in the summit.

The ‘Glossary of Environmental Statistics’ defines Municipal Waste as “wastes produced by residential, commercial and public service sectors that are collected by local authorities for treatment and/or disposal in a central location” (UNSD, 1997). OECD (2015) determines MSW as

...waste collected by or on behalf of municipalities. It includes household waste originating from households (i.e. waste generated by the domestic activity of households) and similar waste from small commercial activities, office buildings, institutions such as schools and government buildings, and small businesses that treat or dispose of waste at the same facilities used for municipally collected waste (p. 48).

The explanation excludes waste from municipal sewage networks and treatment and also wastes from construction and demolition activities.

The World Bank opines that MSW includes residential waste, industrial waste, commercial waste, institutional waste, construction and demolition waste and wastes from municipal services like street sweeping etc. It also opines that medical waste and agricultural waste can be considered as MSW if municipality takes the responsibility of their collection and disposal (WB, 2012). Municipal Solid Waste (MSW) as defined by International Finance Cooperation (IFC) is “waste generated by households and similar waste from businesses. MSW management systems include the collection, haulage, recovery, and disposal of waste, conducted by specialist entities and coordinated by local authorities” (IFC, 2012). The usage of “Solid Waste” and “Municipal Solid Waste” are interchangeable, when a municipality is responsible for collection, treatment and disposal of all kinds of waste including industrial waste and biomedical waste.

But the effect of solid wastes or all liquid wastes or gaseous waste are not same. Some wastes irrespective of their physical state, are more hazardous than another. Irrespective of the physical state of wastes, depending on the hazardous effect of wastes, in order to encourage a harmonised classification of waste, wastes are classified into two categories: 1) Hazardous Waste and 2) Non-hazardous waste (EU, 2018; UNIDO, 2008). Hazardous wastes are wastes having hazardous properties and detrimental to environment and human health, if exposed. Substance or mixture of substances which includes explosive materials, flammable liquids, flammable solids, substances liable to spontaneous combustion, toxic materials, bio-wastes, radioactive material are hazardous in nature. A union list of hazardous waste which is otherwise known as European List of Wastes (LoW) has been established by EU and this LoW enlists all the wastes recognising hazardous waste with an asterisk (\*) mark. This LoW has been provided in Annex – I. The European LoW guides the EU nation to identify waste according to the level of their hazardous effect and dispose the properly. The classification of waste guides the national, state, local governments and business houses, for the process of sorting of waste before the waste is collected, disposed or recovered and to identify suitable waste management option and to prevent harm to the environment and to the people.

## 4.2 Waste Composition

There is no single kind of waste produced, so their composition is different. There are different kinds of waste disposal method is adopted for different kinds of waste. Organic waste followed by paper waste and plastic waste dominates the waste composition. It is believed that low income countries produce large amount of organic waste whereas high income countries produce large amount of paper waste, plastic waste and glass waste and other inorganic waste. Commonly found waste in municipal solid waste stream is categorised into organic, paper, plastic, glass, metal and other (UN, 2012). Table No. 4.1 gives ingredients of different types of wastes. This classification is not exclusive but covers all most all dominating waste and became provides an easy picture for their disposal.

**Table No. 4.1**  
**Types of Waste and their Sources**

	Type	Sources
	1	2
1	Organic	Food scraps, yard (leaves, grass, brush) waste, wood, process residues
2	Paper	Paper scraps, cardboard, newspapers, magazines, bags, boxes, wrapping paper, telephone books, shredded paper, paper beverage cups. Strictly speaking paper is organic but unless it is contaminated by food residue, paper is not classified as organic.
3	Plastic	Bottles, packaging, containers, bags, lids, cups
4	Glass	Bottles, broken glassware, light bulbs, colored glass
5	Metal	Cans, foil, tins, non-hazardous aerosol cans, appliances (white goods), railings, bicycles
6	Other	Textiles, leather, rubber, multi-laminates, e-waste, appliances, ash, other inert materials

Sources: The World Bank, What A Waste: A Global Review of Solid Waste Management, 2012

The above table only displays MSW and excludes construction and demolition waste, industrial waste and bio-waste, radioactive waste and agricultural waste. Waste composition is often expressed in terms of weight and sometimes waste volumes also recorded. Waste composition often influenced by economic development, geography, climate change and cultural practices.

### **4.3 Waste Generation**

Earth is the home of millions of species but only one species i.e. human is producing waste in large amount. Naturally, certain materials are unwanted in our day to day life and this generates waste. Wastes are by-product of human usage. Throughout the history humans have created waste but permanent settlement resulted accumulation of waste in particular area. From time immemorial cleanness as integral lifestyle is adopted by civilisations. The drainage structures of Sindhu, Saraswati, Civilisation gives an account of this phenomenon.

Ancient and pre-modern human being had generated few wastes to be disposed. Wastes during Neolithic Age are mainly originated from agriculture and agricultural products. Agricultural products are biodegradable in nature and have less impact on environment. So their impact on environment was unnoticed in past. The Bronze Age had witnessed the urbanisation pattern and density of population of in particular areas had increased during this period. People had thrown wastes into the streets, ponds, pits or rivers. Waste accumulation in particular region has started during this period. Most of wastes at that time was organic and mainly were ashes and human biodegradable wastes. Decomposition, which is a natural process, cleared most of wastes in certain time duration. So, these wastes were decomposed to ground and had minimum environmental impact. During Iron Age, cities were more populous and the population density produced more waste. The use of iron and other metals produced metal wastes but major chunk of waste was still agriculture waste. Still, the amount of waste was insignificant in comparison to today, because of low population density at those times. The amount of waste produced were decomposed and were in pace of



time. In the course of time civilisations prosper, economic activities grew and waste became a problem.

#### **4.4 Waste as by-product of Capitalism**

Waste has inextricable correlation with urbanisation and economic development. Economic wealth of countries increases with the pace of urbanisation. This results in greater consumption of goods and services and leads to a corresponding increase of waste. Chase (1927) identified four channels of waste under capitalist system: 1) Production of unnecessary goods and services; 2) Unemployment; 3) inefficient technique of production and distribution; and 4) the overuse of natural resources which are over and above the needs of current consumption. The scientific and technological revolution took us to the era of consumerism. The more we consume products, the more we produce wastes. Magdoff and Williams (2017) argues waste is by-product of capitalist economy. They assert that “More production means more waste: more waste means more production. Waste is a sign of capitalism’s success” (para 3) and thus “When people throw away a product after using it for a short period of time, in the spirit of planned obsolescence, they will buy a new one, contributing to growth and corporate profits” (para 3).

In ancient times people used dumping and burning as waste disposal method. This system was certainly unorganized and scattered in nature. As argued by above theorists, the difficulty due to waste has begun from the advent of industrial revolution and the problem has aggravated with high population density in urban agglomeration. Technological advancement, mass production, irresponsible consumption proliferated the amount of waste.

Those countries who don't follow capitalistic model of economy also produces large amount of waste. For example China, in 2004, surpassed USA as the world’s largest waste producer (WB, 2012). So, the waste generation pattern is linked to economic development and consumption habits rather than any specific economic model. As described in Table No. 1, waste generation sources are households, industries, manufacturing units, construction sites, chemical plants, stores, hotels, office

buildings, restaurants, schools, hospitals, nursing homes, street cleaning, crops, dairies, feedlots, farms, road and other construction sites.

## **4.5 Waste as Global Threat**

The amount of waste is growing even faster than the rate of urbanisation. Seeing the looming danger from waste, Kristin Shrader-Frechette warned “The threats already are in our backyard, not just half a globe away” (Shrader-Frechette, 2003, 266). Recognising the threat of waste, Mark Dancy, the president of WasteZero, once told “Because we’re not seeing it, we think it’s not a problem” (quoted by Simmons, 2016). Today we stood approximately at 7.6 billion populations with more than 55% are living in urban area. It is a matter of fact that cities have only 2% of global land but producer of 70% of global waste. As cautioned by Simmons (2016) “Pollution runs into rivers and seeps into ground water. Flooding is caused by garbage clogging drains, and the atmosphere can be poisoned by the toxic discharge from trash” (para 16) and “When waste is not collected, the frequency of illness such as diarrhea doubles and acute respiratory infection — linked to the burning of waste — is six times higher” (para 17). Considering waste as a global issue, Kelly (2017) holds that “It’s essential that an effective approach to waste management is embedded in the scheme from the outset, which means prioritising those principles across both the upstream and downstream delivery chain” (para 8).

## **4.6 Threat from Solid Waste**

There is a strong correlation between urban solid waste generation rates and GHG emissions. As solid waste is major source of pollution and a threat to urban civilisation, UNEP cautions that “50 biggest active dump sites affect the lives of 64 million people, including their health and loss of lives and property when collapses occur” and also “2 billion people are without access to solid waste management and 3 billion lack access to controlled waste disposal facilities” (UNEP, 2017).

Every year nearly 11.2 billion tonnes of solid waste is collected from around the world and it contributes five percent of global greenhouse gas emission (UN Environment, n.d.). It is estimated that approximately 40% of world's waste are being dumped in dump sites and daily lives of more than 64 million people are affected by world's 50 biggest dump sites. Dump sites are serious threat to global health and environment. These are major source of pollution which pollute our atmosphere, oceans, and damage the health of millions of people (ISWA, 2017).

## **4.7 Threat from Hazardous Waste**

Hazardous waste as the name signifies, the waste that “owing to its toxic, infectious, radioactive or flammable properties poses an actual or potential hazard to the health of humans, other living organisms, or the environment” (UNSD, n.d.). Substance or mixture of substances which includes explosive materials, flammable liquids, flammable solids, substances liable to spontaneous combustion, wastes in contact with water emit flammable gases, oxidising materials, organic peroxides, poisonous materials, infectious substance, corrosive materials, toxic materials, Eco-toxic substance are hazardous substances (UNEP, 1989), bio-wastes, radioactive material are called hazardous substance. The remains or the wastes emerged from these material are chronic threat to the whole species on earth. These wastes, due to their radioactive, explosive, corrosive, toxic or other characteristics poses danger or likely to cause danger to human health or environment. The mismanagement of these wastes especially radioactive wastes can exterminate the whole species living on earth. Thus, waste is a global threat and the problem is going to be more acute, if not strategically disposed of.

## **4.8 Waste Management**

Waste management practices are different in different areas. In rural areas, per capita income is less and so the per capita consumption is less. The rural world due to less consumption, residents produce less waste. Organised waste collection system, waste transportation and waste disposal practice is infrequent in rural world. But the world

is home of 55% urban population. These 55% people live on 2% land of earth and produce nearly 70% of total waste.

Solid waste is inherently an urban challenge. Solid waste management is the possibly the most important work of any city (municipality). Throughout the world ULBs are responsible to remove the wastes out from underfoot and they are doing this in the most economically, socially, and environmentally optimal manner. Waste management often took largest share of the budget of local government and often seen as single largest source of employment.

Now a days waste has been the threat to environment and habitat and requires special attention. The rising waste problem leads to pollution of environment and have serious health impact. The poor and vulnerable are being affected most by the ill effect of waste. The proliferation of generation of waste, due to heavy consumption, required the systematisation of waste management and comprehensive policy formulation related to waste management.

Waste management is the collection, transportation, and disposal of wastes. Simply, the process of supervising and handling of waste material from the place of its generation to its disposal is regarded as waste management. Here handling includes all activities “relating to sorting, segregation, material recovery, collection, secondary storage, shredding, baling, crushing, loading, unloading, transportation, processing” and also disposal of wastes (MoEFCC, 2016). Disposal of waste includes recovery, recycle, re-use or alternative use of waste. The Basel Convention depicts waste management as “the collection, transport and disposal of hazardous wastes or other wastes, including after-care of disposal sites” (UNEP, 1989). Waste management as determined for European nations is “the collection, transport, recovery and disposal of waste, including the supervision of such operations and the after-care of disposal sites, and including actions taken as a dealer or broker” (EU, 2018). United Nations considers waste management as the sum of three integral activities.

- 1) Collection, transport, treatment and disposal of waste;
- 2) Control, monitoring and regulation of the production, collection, transport, treatment and disposal of waste ; and

- 3) Prevention of waste process through in-process modification, reuse and recycling (UNSD, 1997).

So, waste management is supervised handling of waste products from the point of production through recovery process and to disposal.

## **4.9 Principles associated with Waste Management**

Waste management is the chronic challenge for now and for the future of urban world due to the inevitability role it is playing for the safety of people and planet. In contemporary world, waste management should not only be the business of states or of business houses, but also be the part of household exercises.

As argued by Simmons, we are charged depending on how much we use the utilities such as gas, water, electricity and so on but we are not charged for how much we produce the waste (Simmons, 2016). There are lots of principles adopted to reduce waste amount and for efficient and sustainable management of waste. Some of widely used principles are discussed below.

### **4.9.1 Waste Hierarchy**

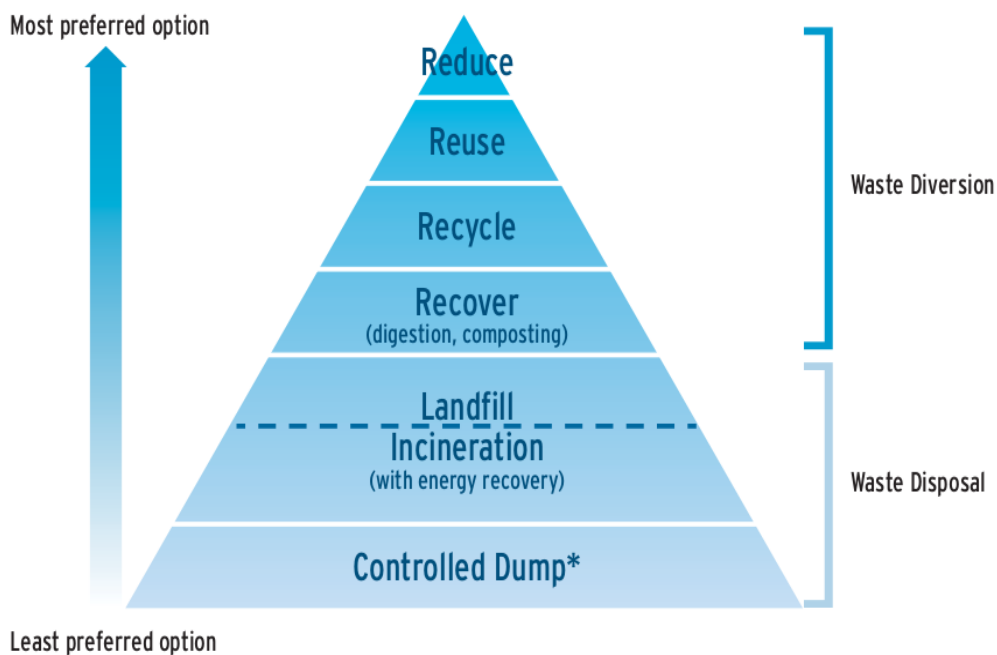
Waste Hierarchy is the widely used strategy for waste minimisation. It mainly advocates 3R i.e. reduce, reuse and recycle. Now a day another R has been added with recover a necessity priority. It preferred programme priority based on sustainable practice of most favoured option to least favoured option. Waste hierarchy, as said by European Commission, “lays down a priority order of what constitutes the best overall environmental option in waste legislation and policy, while departing from such hierarchy may be necessary for specific waste streams when justified for reasons of, inter alia, technical feasibility, economic viability and environmental protection” (EU, 2018).

The waste hierarchy works according to economic, social, environmental consideration and encourages for the reduction of GHG emission. It tries to adopt

best environmental practice which is economical and socially viable. The practices of waste diversion reduces significant amount of waste generation. A brief discussion about hierarchies is enumerated below.

Reducing Waste: Waste reduces is the most sustainable practice. It focuses on consumption behaviour. It advocates for source reduction practice i.e. reducing consumption at source. Reducing consumption causes less generation of waste which in turn saves cost of waste management and nullifies toxic gas emission. Waste is the by-product of consumer based lifestyle and is inextricably linked to economic development. Reducing waste by reducing consumerism may result reducing economic activity. No, country wants to reduce the economic development in their respective area. Thus, irrespective of the prevalence of the slogan to minimise consumption of goods and services, no countries take seriously the less consumption practice.

Figure 4.1: Waste Hierarchy



Sources: The World Bank, What A Waste: A Global Review of Solid Waste Management, 2012

**\* As a minimum, waste should be disposed at a controlled dump.**

**Reuse of Waste:** Like reduce advocates waste prevention, reuse advocates waste minimisation. Reuse practice is using the same product again and again either for original purpose or for other purpose. Reuse of waste means “any operation by which products or components that are not waste are used again for the same purpose for which they were conceived” (EUROSTAT, n.d.). Notable examples are refillable bottles used for packaging of soft drinks, milks and other liquid consuming products are reused maximum times. Though reuse is a little bit costlier business, it saves energy and raw material. A vibrant second hand market will emerge if reuse practices followed appropriately.

**Recycling of Waste:** Recycling is the process of using waste material to produce new material. Recycling as explained by eurostat is “any recovery operations by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes” (EUROSTAT, n.d.). Recycling bring back wastes to the state of raw material and hence reduce exploitation of natural resources. It brings waste into economic activity and creates jobs.

**Recovery of Waste:** Recovery of waste is the process of collecting those wastes which are not coming frequently for recycling and use it as the input material for the production of new objects. Waste recovery according to eurostat is “any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy” (EUROSTAT, n.d.). Recovery is the separation of materials from the waste we generate. It also uses aerobic composting and anaerobic digestion techniques for resource recovery from organic waste. Recovery from non-biodegradable material is often expensive option but reduces the amount of waste and returns material into the economic fold.

**Incineration:** Incineration is the process of converting the waste into ash, water vapour and carbon dioxide through combustion. This method of waste disposal reduces the volume of waste by up to 90% (WB, 2012). Incineration with energy recovery option converts energy from waste as input material. This process is often

criticised as incinerators produces fine particles, toxic fly ash, dioxin, emit heavy metals like chromium, lead, mercury. But it is the existing efficient economic viable waste disposal method.

**Landfill:** landfill is disposing wastes in a predetermined large land area. It is the cheapest option in economically less developed countries and often waste is disposed without proper treatment. The residues from incineration also send to landfill. Land fill is considered as the last option for waste disposal.

**Controlled Dump:** Landfill is considered as part of open dumping. But controlled dump is landfill but with compaction of waste as far as possible and dumping occurs only after proper treatment of the waste.

Though Ewijk and Stegemann have shown many limitations of Waste Hierarchy, but still it is the widely used tool which prioritises most sustainable option (Ewijk & Stegemann, 2016). This is because it focuses on utilising the waste in such a way that least amount of waste generation will follow.

## **4.9.2 Polluters-Pays Principle**

Polluter-pays principle mandates that polluting party should bear the cost of managing pollution to prevent damage on human health and environment. The sixteenth principle of Rio Declaration displays the necessity of the principle. Polluter-pays principle is the guiding principle at international level which holds, “the costs of disposing of waste must be borne by the holder of waste, by previous holders or by the producers of the product from which the waste came” (EU, 2018). This principle regulates most of pollution related laws and is part of a broader principle which guides sustainable management of waste.

## **4.9.3 Extended Producer Responsibility (EPR)**

Extended Producer Responsibility is an environmental policy approach which integrates all costs associated with goods and extends responsibility of the producer



to the post-consumer stage of entire life cycle of a product. Though EPR is based on Polluter-pays principle, it also talks about for the take-back, recycling and final disposal of the product (Lindhqvist, 2000). OECD emphasizes this principle for its member states and defined EPR as:

Extended Producer Responsibility is a concept where manufacturers and importers of products should bear a significant degree of responsibility for the environmental impacts of their products throughout the product life-cycle, including upstream impacts inherent in the selection of materials for the products, impacts from manufacturers' production process itself, and downstream impacts from the use and disposal of the products. Producers accept their responsibility when designing their products to minimise life-cycle environmental impacts, and when accepting legal, physical or socio-economic responsibility for environmental impacts that cannot be eliminated by design (OECD, n.d.).

European Commission directs its member states to obey this principle. Application of EPR can result less impact on overall environment, human health and will ensure the proper functioning of internal market. Different countries have conceived many principles to follow, but above said principles are prevalent in international arena.

#### **4.10 Waste Collection and Transportation**

Waste collection is the collection of garbage, trash, refuse etc. from the source of its generation and its transportation to the point of its treatment or disposal. Those waste production sources (industries, hospitals etc.), who do not fall under the purview of ULB, have separate waste collection system. They either employ their own employee or license to private operators for collection and transportation of their waste. Waste collection and transportation primarily rests on ULBs in urban areas. ULBs collect waste through various methods like House-to-house collection, Community bins, Curbside pick-ups or delegated services (WB, 2012).

- **House-to-House Collection:** in this method, the waste generator pays the fee and waste collectors collect waste from each individual household.
- **Community Bins:** In this method, the waste generators have to bring their waste to a fixed point in his neighbourhood, where community bins are installed.
- **Curb side Pick-up:** In this method, waste generators leave their wastes at outside their homes in accordance with waste pick-up schedule determined by local authorities.
- **Self-Delivered:** Waste producers deliver the waste directly to the disposal site either by own employee or by hiring third party operators.
- **Delegated Services:** Municipalities delegate the power for waste collection and license private operators, for higher degree of expertise and for more efficient collection and transportation of waste.

Collected wastes are either segregated or un-segregated depending on regulations in respective regions. Segregation of waste in to dry waste and wet waste at the place of generation is healthy practice and curbs the unnecessary landfill practice.

Collection of waste is mainly primary collection and secondary collection. Primary collection is the collection of waste from the point of waste production. Waste bins are installed outside individual households, at institutions, commercial centers, business houses and other waste generator points mentioned in Table No 1. Primary collection is being done through small vehicles like door-to-door pedal driven cycle rickshaw, foot operated wheeled bins and other wheeled bins. Primary collection is suitable for less spacious areas. Waste after primary collection is stored at designated storage points. Secondary collection is the collection of waste from designated storage point or from large waste storage container to the waste recycle point or to final waste disposal site. This is also called waste transportation. This is being done through utilising larger vehicles like trucks fitted with bin lifter, flatbed crane truck, hydraulics compactors etc. After transportation, waste either recycled or disposed through various techniques.

## 4.11 Waste Disposal

Waste disposal is elimination of waste through adopting various techniques. Commonly practices waste disposal methods are Composting, Vermi Composting, Aerobic Digestion Sanitary Landfill, Incineration, Plasma Gasification, and Landfill Gas Recovery. Based on the possibility of resource recovery, recycling, reclamation direct re-use, or alternative uses, the Basel Convention, 1989 has bifurcated waste disposal practice into two kinds. First kind where there are no possibility of recovery or recycle or re-use and second kind where some possibility lies. An operation which comes under first kind is:

- 1) Deposit into or onto land, (e.g., landfill, etc.)
- 2) Land treatment, (e.g., biodegradation of liquid or sludgy discards in soils, etc.)
- 3) Deep injection, (e.g., injection of pumpable discards into wells, salt domes or naturally occurring repositories, etc.)
- 4) Surface impoundment, (e.g., placement of liquid or sludge discards into pits, ponds or lagoons, etc.)
- 5) Specially engineered landfill, (e.g., placement into lined discrete cells which are capped and isolated from one another and the environment, etc.)
- 6) Release into a water body except seas/oceans
- 7) Release into seas/oceans including sea-bed insertion
- 8) Biological treatment which results in final compounds or mixtures which are discarded by means of any of the operations mentioned here.
- 9) Physico-chemical treatment which results in final compounds or mixtures which are discarded by means of any of the operations (e.g., evaporation, drying, calcination, neutralization, precipitation, etc.)
- 10) Incineration on land
- 11) Incineration at sea

- 12) Permanent storage (e.g., emplacement of containers in a mine, etc.)
- 13) Blending or mixing prior to submission to any of the operations mentioned here
- 14) Repackaging prior to submission to any of the operations mentioned here
- 15) Storage pending any of the operations mentioned here.

The operation which comes under second kind i.e. where recycle, recovery or alternative use can possible is:

- 1) Use as a fuel (other than in direct incineration) or other means to generate energy
- 2) Solvent reclamation/regeneration
- 3) Recycling/reclamation of organic substances which are not used as solvents
- 4) Recycling/reclamation of metals and metal compounds
- 5) Recycling/reclamation of other inorganic materials
- 6) Regeneration of acids or bases
- 7) Recovery of components used for pollution abatement
- 8) Recovery of components from catalysts
- 9) Used oil re-refining or other reuses of previously used oil
- 10) Land treatment resulting in benefit to agriculture or ecological improvement
- 11) Uses of residual materials obtained from any of the operations mentioned above
- 12) Exchange of wastes for submission to any of the operations mentioned above
- 13) Accumulation of material intended for any operation mentioned here (pp. 46-57).

Though Basel Convention includes waste recycling and recovery as waste disposal operations, World Bank considers these operation as method of waste diversion. As discussed in waste hierarchy principle, 4R i.e. Reduce, Reuse, Recycle and Recover are four methods used for waste diversion. Incineration, Landfill and Controlled Dump are waste disposal methods.

Open burning was widely practised waste disposal method from ancient times. Even today it is practised in countries where there is non-availability of modern efficient waste disposal technology. With course of time waste became a threat to human habitat and environment and the huge mounds of waste forced human being to discover efficient waste disposal methods and techniques. Widely practised disposal methods can be categorised into three methods: 1) Biological Treatment Method (BTM); 2) Thermal Treatment Method (TTM); and 3) Landfills.

**Table No 4.2**  
**Comparison of Composting Methods**

Process	Pests	Maintenance	Best Location	Input	Time Period
Aerated Static Pile	High	Moderate	Outdoors/Warehouse	Organic Waste	1-3 Months
Bio-Digesters	Moderate	Moderate	Outdoors/Warehouse	Plant Based Waste	8-12 Weeks
Bokashi	Low	High	Any	Soft Organic Waste	4-6 Weeks
In-Vessel	None	Low	Outdoors/Indoors	Organic Waste	24 Hours to 3 Months
LFC	None	Low	Commercial Kitchen	Organic Waste	24 Hours
Vermicomposting	Moderate	Moderate	Outdoors	Soft Organic Waste	1-2 Months
Windrow	High	High	Outdoors	Organic Waste	6-9 Months

Source: Power Knot

**Biological Treatment Method:** This method is used to decompose the organic or biodegradable waste to produce compost. This is famously known as composting. Composting is an inexpensive and natural process which converts kitchen and garden and other organic waste into rich nutrient compost useful for plants and trees in the garden. Based on usage of oxygen, techniques used in BTM are Aerobic Composting and Anaerobic Composting. Aerobic composting includes vermin composting, in-vessel composting etc. and takes place in the presence of oxygen. Anaerobic digestion operates in the absence of oxygen. Bokashi method is an example of anaerobic composting. Commonly used composting methods are Aerated Static Pile Method, Bio-digesting Method, Bokashi Method, LFC, Vermicomposting, Windro Method. A brief comparison of these composting methods is given in table no. 4.2.

**Thermal Treatment Method:** This method uses heat to dispose the waste. Techniques used in this method are of two kinds. First kinds of techniques works in the presence of oxygen while second kind of techniques uses limited or no oxygen. Incineration which has been discussed in waste hierarchy comes under first kind of technique. Plasma gasification, Plasma Pyrolysis comes under operations with limited or without oxygen. Plasma gasification technique uses plasma torch, operates under high temperature and converts waste into synthetic gas (syngas) and slag. The syngas can further used for energy generation. Plasma gasification does not produce any hazardous gas like incineration. It reduces the waste to minimum amount and more useful than incineration. But its installation cost is high, its operation cost is high, its maintenance cost is high and it produces very less amount of energy. Though it is environment friendly technology, it is most expensive. Thermal treatment method always preferred with waste-to-energy techniques like incineration with energy recovery option and plasma gasification.

## **4.12 Global Policies related to Waste Management**

Waste management is an inevitable urban parameter for the survival of urban centres. Waste management includes all the activities, from collection of waste till its disposal. Waste management is receiving major attention these days in urban areas. National policies and sub-national policies have major attention related to sustainable

waste management. To protect the environment and for safeguarding the health of people on earth from the adverse effect of waste, especially from the adverse effect of solid waste the world community has mobilised and tackled the threat created by solid waste to a greater extent.

World communities have shown their concern about sustainable solid waste management repeatedly through various conventions and conferences. Policies are being formed and implemented by the world community to mitigate the hazardous effect from solid waste. The Earth Summit emphasized to “Develop appropriate solid waste disposal technologies on the basis of health risk assessment” and to “Develop appropriate solid waste disposal capacities in large cities” (UNCED, 1992). It stressed to encourage local participation and solid waste management policy formulation and implementation. United Nations Framework Convention on Climate Change (UNFCCC), in Article-4, emphasized for technology transfer in waste management sectors (UNFCCC, 1992). Kyoto Protocol, 1997 stressed to implement national policies for “reduction of methane emissions through recovery and use in waste management” and to publish national and regional programmes containing measures to mitigate climate change which includes waste management (UN, 1998). Rio +5 in 1997, Rio +10 in 2002 and Rio +20 in 2012, all stressed for sustainable waste management for better future of the planet and people. Recognising the acute situation, Sustainable Development Goals or Agenda 2030 adopted by United Nations in 2015 included many targets for sustainable waste management. In Goal. 11 the sixth target is “By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management”, in Goal. 12 the fourth target is “By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment” and the fifth target is “By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse” (UN, 2015). Thus the world community is concerned and formulated policies to mitigate the ill effects of solid waste, but still the threat has not mitigated completely. National

governments and local governments should more active and formulate public policies and implement those in their local environment for better result.

Russia and Bharat have made many national policies concerning solid waste management. For example recently Bharat formulated comprehensive “Waste Management Rules 2016”, which categorised wastes into six types and assign responsibilities for different stake holders to manage waste. In similar fashion Russia, in 2017 amended the old federal law “On Production and Consumption Wastes, 1998” and put down guidelines for waste management.

### **4.13 Waste Management Scenario in Russia**

Russia is the largest country on the earth by area and is the inhabitant of 146,880,432 people. In special need, capital of both countries have formulated independent public policies for the better future, better environment and better health of the people of Moscow and of Delhi.

As megalopolis, Moscow as well as Delhi is facing the similar challenges, thrown at other cities on the earth. Both are capital cities and largest cities of respective countries. As per 2010 census, Moscow had population of 11.5 million but as of now 12,506,468 people live in city (FSGS, 2018). With such huge population, Moscow is not only the largest city in Russia but also one of the largest one in Europe. Moscow which is both a city and the city of federal importance is among three such federal subjects of Russian Federation. Unlike other urban agglomerations, Moscow doesn't have surrounding area to expand. Moscow Oblast is another federal subject of Russia which nearly surrounded the Moscow city. Moscow includes the cities from Moscow Oblast to expand itself. The city is being expanded in 2012 as the cities of Troitsk, Moskovsky, and Shcherbinka were added to Moscow and the territories of Leninsky, Naro-Fominsky, and Podolsky Districts have been transferred to Moscow on 1st July 2012, which were previously parts of Moscow Oblast. The total area being transformed into 2561.5 km<sup>2</sup> (FSGS, 2018). With the increasing pressure from city centre it will include more areas from Moscow Oblast. There are also speculations of merging Moscow and its surrounding Moscow Oblast as one metropolitan area. This



may became the largest metropolitan city of the world taking area into consideration. The Gross Regional Product of Moscow is largest in Russia and accounted for 26% as of 2016. Though Moscow is home of only seven percent of Russian population, it provides 3.5 million jobs, consumes a large amount of products worth nearly 2.3 trillion roubles, exports 20% hi-tech product, 18% of Russia's manufacturing industry also situated in Moscow (Sobyenin, 2017).

At the similar pace the population of Delhi is soaring every day. As of 2011 census, Delhi was the home of 16,787, 941 people and rising everyday (MHA, 2011). The population of Delhi NCR as of 2011 was 46, 069,000 and projected up to 2021 is 48,619,000 (NCRPB, 2017). New Delhi is spanned over 1483 km<sup>2</sup> and the NCR Delhi is scattered over an area of 53817 km<sup>2</sup>. In 1997, New Delhi was divided into nine districts and in 2012, two more districts added. Delhi, as detailed in previous chapter, now consists of eleven revenue districts. There are five Municipalities named, 1) North Delhi Municipal Corporation; 2) South Delhi Municipal Corporation; 3) East Delhi Municipal Corporation; 4) New Delhi Municipal Council; and 5) Delhi Cantonment board, are functioning working for the implementation of waste management.

The huge chunk of population concentrated over a limited area produces large amount of waste in Moscow and in Delhi. Both the cities are the centre of economic activity in their respective countries. The population flux will increase commensurately with economic activity. Both economic activity and population growth will produce huge amount of waste. Like all other megacities of the world, Moscow and New Delhi need to have sustainable waste management system to protect the public health and environmental.

#### **4.14 Waste Management Policies for Moscow**

Moscow, the northernmost and coldest city in earth, has the status of “City of Federal Importance” along with two other city Saint Petersburg and Sevastopol in Russia. It is also a federal subject of Russian Federation among 85 Federal Subjects. As a sub-regional government, Moscow follows the national policy frameworks, national laws

and federal decrees for waste management. The prime law for formulation of waste management policy is regulated by Federal Law No. 89-FZ of 24.06.1998 “On Production and Consumption of waste”. The broad outline of policies, laws and decrees Moscow follow for formulation of its policy are -

- Federal Law No. 89-FZ of 24.06.1998 “On Production and Consumption of waste”;
- Federal Law No 52-FZ of 30.03.1999 “On Sanitary and Epidemiological Welfare of Population”;
- Federal Law No 96-FZ of 04.05.1999 “On Protection of Atmospheric Air”;
- Federal Law No 7-FZ of 10.01.2002 “On protection of environment”;
- Federal law No 99-FZ of 04.05.2011 “On Licensing of Certain Activities”;
- Decree of the Government of the Russian Federation No 197 of 16.03.2016 “On the Approval of Requirements for the Composition and Content of Territorial Schemes for Handling Waste, Including Solid Municipal Waste”;
- Decree of the Government of the Russian Federation No. 269 of 04.04.2016 “On the Definition of Standards for the Accumulation of Solid Municipal waste”;
- Decree of the Government of the Russian Federation No. 424 of 16.05.2016 “On Approving the Procedure for the Development, Approval, and Adjustment of Investment and Production Programs in the Field of Solid Waste Management, including the Determination of Planned and Actual Values of the Performance Indicators for Facilities Used for Treatment, Neutralization and burial of solid municipal waste”;
- Decree of the Government of the Russian Federation No. 484 of 30.05 2016 “On Pricing in the Field of Solid Waste Management”;

- Decree of the Government of the Russian Federation No. 505 of 03.06.2016 “On approval of the Rules for the commercial accounting of the volume and (or) mass of solid municipal waste”;
- Decree of the Government of the Russian Federation No. 881 of 05.09.2016 “On the Conduct by the Authorized Executive Bodies of the Constituent Entities of the Russian Federation of Competitive Selection of Regional Operators for the Management of Solid Municipal Waste”; and
- Decree of the Government of the Russian Federation No. 1156 of 12.11.2016 “On the management of solid municipal waste”.

The above mentioned laws, decrees and policy frameworks are not exclusive. There are many amendments to those laws, many other decrees are also guides the waste management in Moscow. But still, law no. 89-FZ plays prime role in formulating new laws or policies in Moscow.

#### **4.15 Waste Classification in Moscow**

Varieties of wastes are generated in urban areas due to existence of varieties of institutions. Households and industrial establishments do not generate same kind of waste. Depending on hazardous effect on environment, Ministry of Natural Resources and environment, Russian Federation, classified five waste hazard classes. The classes of waste represents the degree of possible harm effect on environment either by direct influence or by indirect influence of hazardous waste. Class – I wastes are considered as extremely hazardous and Class – V wastes are practically non-hazardous (Yatskevich, 2001). For proper disposal of hazardous waste and to minuscule their effect, Moscow follows fivefold waste classification enshrined by the ministry. Those classification has been depicted in table no 4.1.

According to the origin of waste production, Moscow follows two fold classifications: 1) Industrial waste and 2) Household waste. Management of these

wastes have undertaken by different authorities. Federal Law No. 131-FZ of 06.10 2003 “On General Principles of Establishment of Local Self-government in the Russian Federation” laid down instructions of collection, transportation, utilization and recycling of production and domestic waste to the authority of local self-governance. So Moscow is responsible for the waste management of Moscow

**Table No. 4.3**  
**Classes of Hazardous Waste**

Sl No.	Degree of harmful effect of hazardous waste on environment	Criteria for classifying hazardous waste as hazardous to environment	Hazard class of hazardous waste	International Classification
1	Very high	The ecological system is completely broken. Recovery period is not known	Class – I Extremely hazardous	Hazardous
2	High	The ecological system is highly disrupted. Recovery period extends to more than 30 years even after the complete elimination of source of hazardous effect	Class – II Highly hazardous	
3	Average	The ecological system is broken. Recovery period extends to more than 10 years even after the complete elimination of source of hazardous effect	Class – III Moderately hazardous	
4	Low	The ecological system is broken. A minimum of 3 years of self-	Class – IV Certain	Non-hazardous

		healing period is require	amount of risk is there	
5	Very low	The ecological system is not broken.	Class – V Practically not harmful	

Sources: Ministry of Natural Resources, Russian Federation, 2001

## 4.16 Waste Management in Moscow

On the footprints of laws mentioned above and in order to implement the provisions of Federal Law No. 89-FZ “On Production and Consumption of Waste”, Government Resolution No. 197 “On Approving Requirements for the Composition and Content of Territorial Waste Management Schemes, Including Solid Municipal Waste” of 16.03.2016, Moscow government issued a decree. The Decree of Government of Moscow No. 492-PP “On the Approval of the Territorial Scheme for Handling Waste, Including Solid Municipal Waste” is one of the major law in the sphere of waste management in Moscow.

Waste generation sources have been identified as places of housing stock, construction, industry, transport, social, cultural, administrative, educational, medical, entertainment, sports, sports, trade, public food and many other places in which waste is generated in the process of production. These sources of waste generation are grouped into two groups 1) Residential sector; and 2) Non-residential sector. There are 91738 places with 45,015 residential sectors and 46,723 non-residential sectors have been identified by authorities in Moscow as sources of waste generation.

Moscow has a population of 12,330,126 as of 1st January 2016 and the total area of 2561.5 km<sup>2</sup> has been divided into 12 administrative divisions called “Administrative Okrugs” (FSGS, 2016). These Administrative Okrugs are directly handling waste management in Moscow. There are nearly 8 million ton/year of waste is generated in Moscow having nearly 41 million cu.m. Of huge volume. Okrugwise waste production is depicted in table no 4.1.

**Table No. 4.4**  
**Amount of Solid Municipal Waste generation 2015.**

	Administrative Okrugs of Moscow	Hazard Class	The amount of waste generated from both residential and non-residential sector					
			Residential sector		Non-residential sector		Total	
			Tons per year	cu.m. per year	Tons per year	cu.m. per year	Tons per year	cu.m. per year
1	2	3	4	5	6	7	8	
1	CAO	IV-V	284264	1,467,548	255,335	1,318,198	539,599	2,785,746
2	NAO	IV-V	428,655	2,212,984	258,727	1,335,710	687,382	3,548,694
3	NEAO	IV-V	523,083	2,700,480	324,898	1,677,326	847,981	4,377,806
4	EAO	IV-V	557,146	2,876,335	335,078	1,729,881	892,224	4,606,216
5	SEAO	IV-V	510,447	2,637,310	421,996	2,178,606	932,843	4,815,916
6	SAO	IV-V	656,510	3,389,313	349,555	1,804,621	1,006,065	5,193,934
7	SWAO	IV-V	527,704	2,724,337	258,327	1,333,645	786,031	4,057,981
8	WAO	IV-V	504,199	2,602,989	291,070	1,502,685	795,269	4,105,674
9	NWAO	IV-V	365,717	1,888,05	168,096	867,816	533,813	2,755,87

				9				5
10	ZAO	IV-V	88,022	454,424	44,094	227,641	132,116	682,065
11	Nov.AO	IV-V	65,517	338,240	437,192	2,257,057	502,709	2,595,297
12	TAO	IV-V	41,390	213,681	220,714	1,139,463	262,104	1,353,144
	Total		4,553,054	23,505,700	3,365,082	17,372,648	7,918,136	40,878,348

Source: Decree of the Government of Moscow No. 492-PP of 09.08.2016

Including 8 million tonnes/year of municipal solid waste, there are nearly 38 million tonnes/year of other kinds of waste is generated in Moscow. This total amount and Okrugwise wastes (excluding municipal solid waste) has been showed in table no. 4.3.

**Table No. 4.5**

**Amount of Waste Generation (excluding municipal solid waste) in Moscow, 2015.**

Type of Waste	Administrative Districts	The amount of waste generation (excluding solid municipal waste) in the administrative districts of Moscow, tons per year												
		CAO	NAO	NEAO	EAO	SEAO	SAO	SWAO	WAO	NWAO	ZAO	Nov.AO	TAO	Total

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
W1		1,24 5,90 3	2,40 5,06 6	975 ,98 0	416 ,53 4	1,31 0,35 5	727 ,41 9	534 ,73 0	3,75 7,28 9	640 ,01 6	303 ,96 1	1,07 7,40 7	130 ,57 4	13,52 5,234
W2	IV	1,49 3	1,32 1	481	422	1,51 5	283	105	1,27 4	549	211	322	43	8,019
W3	IV	115, 073	101, 834	37, 075	32, 508	116, 739	21, 799	8,0 98	98,1 64	42, 285	162 ,35	24,8 01	3,3 51	617,9 62
W4	IV	78	69	25	22	80	15	6	67	29	11	17	2	421
W5	IV	68,8 74	60,9 50	22, 190	19, 457	69,8 71	13, 048	4,8 48	58,7 54	25, 307	9,7 17	14,8 44	2,0 06	369,8 66
W6	V	129, 160	114, 300	41, 614	36, 487	131, 30	24, 468	9,0 91	110, 181	47, 461	18, 222	27,8 37	3,7 62	693,6 13
W7	V	187, 639	166, 050	60, 455	53, 007	190, 355	35, 546	13, 206	160, 067	68, 949	26, 472	40,4 40	5,4 65	1,007 ,651
W8	V	39,8 07	35,2 27	12, 824	11, 245	40,3 83	7,5 41	2,8 02	33,9 57	14, 627	5,6 16	8,57 9	1,1 59	213,7 67
W9	V	2,61 2	2,31 1	841	738	2,64 9	495	184	2,22 8	960	368	563	76	14,02 5
W 10	V	370	328	119	105	376	70	26	316	136	52	80	11	1,989
W 11	V	7,06 8	6,25 4	2,2 77	1,9 97	7,17 0	1,3 39	497	6,02 9	2,5 97	997	1,52 3	206	37,95 4
W 12	V	10,3 20	9,13 3	3,3 25	2,9 15	10,4 69	1,9 55	726	8,80 4	3,7 92	1,4 56	2,22 4	301	55,42 0
W 13	V	4,74 5	4,19 9	1,5 29	1,3 41	4,81 4	899	334	4,04 8	1,7 44	669	1,02 3	138	25,48 3
W	IV-	388	344	125	110	394	74	27	331	143	55	84	11	2,086



14	V													
W 15	IV- V	678, 276	1,90 2,74 6	793 ,10 0	256 ,18 0	734, 510	619 ,88 7	494 ,78 0	3,27 3,06 9	431 ,43 7	223 ,88 0	955, 070	114 ,04 3	10,47 6,978
W 16		0	0	0	0	1,28 5,33 1	102 ,69 5	0	77,2 28	25, 468	0	0	0	1,490 ,722
W 17	IV	0	0	0	0	112, 997	0	0	0	0	0	0	0	112,9 97
W 18	IV	0	0	0	0	843, 709	0	0	0	0	0	0	0	843,7 09
W 19	IV- V	0	0	0	0	328, 625	102 ,69 5	0	77,2 28	25, 468	0	0	0	534,0 16
W 20		171, 160	268, 827	299 ,66 8	516 ,50 9	466, 845	540 ,03 8	469 ,09 2	330, 609	226 ,47 8	226 ,41 8	207, 590	146 ,90 4	3,870 ,138
W 21	I	49	19	11	296	24	863	10	13	12	15	1	1	1,314
W 22	II	64	92	37	1,4 13	45	28	27	26	28	32	1	1	1,794
W 23		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
W 24	III	126	246	242	563	638	379	405	92	272	533	97	87	3,680
W 25		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
W 26	IV- V	170, 921	268, 470	299 ,37	514 ,23	466, 138	538 ,76	468 ,65	330, 478	226 ,16	225 ,83	207, 491	146 ,81	3,863 ,350

				8	7		8	0		6	8		5	
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Source: Decree of the Government of Moscow No. 492-PP of 09.08.2016.

W1: Construction and repair waste, including materials that have lost consumer properties

W2: Wood waste products

W3: Scrap of asphalt and asphalt-concrete

W4: A mixture of uncontaminated construction materials based on polymers, containing polyvinyl chloride

W5: Waste (garbage) from construction and repair work

W6: Scrap of concrete products, waste of concrete in lump form

W7: Scrap of reinforced concrete products, scrap of reinforced concrete in lump form

W8: Scrap of construction bricks uncontaminated

W9: Other products from natural wood, lost consumer properties, uncontaminated

W10: Scrap of glass products

W11: Sand waste is not contaminated

W12: Construction waste debris is not contaminated

W13: Scrap and waste containing uncontaminated ferrous metals in the form of articles, pieces, unsorted

W14: Scrap and waste containing unsorted non-ferrous metals in the form of articles, pieces

W15: Soil waste during excavation works

W16: Wastes from water supply, sanitation, collection, treatment, utilization, neutralization, waste disposal

W17: Precipitation from sand and settling tanks during mechanical cleaning of domestic and mixed wastewater is not very dangerous

W18: Excess biological wastewater treatment plant in a mixture with mechanical sewage sludge of domestic and mixed wastewater

W19: Wastes in cleaning networks, wells of rain (storm) sewerage

W20: Other production waste

W21: Mercury lamps, mercury-quartz, luminescent, lost consumer properties

W22: Waste of maintenance, repair and dismantling of vehicles

W23: Waste of oil products

W24: Wastes from solid industrial materials contaminated with oil or oil products

W25: Waste of automotive filters

W26: Other wastes of enterprises and organizations which are not solid municipal waste

As international practice, record of composition of waste in Moscow

**Table No. 4.6**  
**Average morphological and fractional composition**  
**of solid municipal waste in 2015.**

Sl. No.	Components of solid municipal waste	Content (% of mass), depending on the linear dimension (mm)					
		> 250	150-250	60-150	15-60	<15	Total

1	Food waste	0.0	0.1	14.7	9.6	0.3	24.7
2	Paper, cardboard	2.2	4.0	15.9	2.2	0.0	24.3
3	Tree	1.3	0.1	0.3	0.0	0.0	1.7
4	Metal black	0.0	0.2	0.9	0.1	0.0	1.2
5	Metal color	0.0	0.1	0.6	0.1	0.0	0.8
6	Textile	0.9	0.7	2.0	0.0	0.0	3.6
7	Glass	0.0	0.1	10.9	0.4	0.0	11.4
8	Leather, rubber	0.1	0.3	0.3	0.0	0.0	0.7
9	Stones	0.0	0.1	0.2	0.1	0.0	0.4
10	Plastics	0.7	1.6	13.1	0.8	0.0	16.2
	in t.ch. PET	0.0	0.2	3.1	0.0	0.0	3.3
11	Composite packaging	0.1	0.1	2.0	0.3	0.0	2.5
12	Hygiene products	0.0	0.1	2.3	0.2	0.0	2.6
13	Other (unclassified)	0.0	0.1	2.3	2.0	0.8	5.2
14	Screenings	0.0	0.0	0.0	0.0	4.7	4.7
15	Total	5.3	7.6	65.5	15.8	5.8	100

Source: Decree of the Government of Moscow No. 492-PP of 09.08.2016.

**Table No. 4.7**

**The locations of the accumulation of solid municipal waste, 2016**

Administrative District of Moscow	Number of places of accumulation of solid municipal waste in the local areas	Number of installed containers and bunkers	Number of places for accumulation

w										ion of solid muni cipal waste outsi de the adjac ent territ ories
Co ntai ner plat form	B un ke r ar ea	Platfo rm for withd rawab le contai ners	Tot al plac es for soli d muni cipal was te	Of these, requir e recon structi on (instal lation of a fence and / or canop y)	wi th a vo lu m e of 1. 1 cu bi c m et er s	wi th a vo lu m e of 0. 8 cu bi c m et er s	bu nk er in vo lu m e of 8 cu bi c m et er s	con tain er of 5 cub ic met ers		
1	2	3	4	5	6	7	8	9	10	11
CAO	1,569	7	69	1,645	605	3,050	7	5		1,425

NAO	2,025	165	101	2,291	810	4,917	348	165		1,499
NEAO	2,011	282	124	2,417	434	4,405	1,328	207		1,461
EAO	1,900	288	822	3,010	1,033	4,342	1,985	288		554
SEAO	1,422	307	550	2,279	1,144	16	6,665	316		1,231
SAO	2,857	412	112	3,381	854	6,328	2,463	408		1,805
SWAO	2,489	15	319	2,823	382	5,866	1,533	21		493
WAO	1,752	54	124	1,930	594	4,508	767	61		818
NWAO	1,009	20	17	1,046	65	1,904	1,567	22		647
ZAO	316	94	2	412	408	70	913	89		155
Nov.AO	387	149	28	564	324	296	1,288	172	47	571
TAO	303	10	0	313	242	175	450	23	87	345
Total	18,040	1,803	2,268	22,111	6,895	35,877	19,314	1,777	134	11,004

Source: Decree of the Government of Moscow No. 492-PP of 09.08.2016.

	Name of enterprise	Waste acceptance capacity, tons	Hazard Class	Kind of activity
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		per year		
	1	2	3	4
1	The state unitary enterprise of the city of Moscow "Ecotechprom", Special Plant No. 2	160 000	IV	Thermal decontamination
2	State unitary enterprise of the city of Moscow "Ecotechprom", Complex for neutralization and processing of solid household and biological waste "Rudnevo"	250,000	IV	Thermal decontamination
3	Limited Liability Company "EFN-Ecotechprom Incinerator No. 3"	360 000	IV	Thermal decontamination
4	State unitary enterprise of the city of Moscow "Ecotechprom", Complex enterprise of sanitary cleaning "Kotlyakovo"	375 000	IV	Sorting; overload
5	Limited Liability Company "Eco-Line", Integrated Sanitary Cleaning Enterprise	330 000	IV	Sorting; overload
6	Limited Liability Company "Charter", Complex for Sorting and Compaction of Solid Domestic Waste and Bulky Garbage	670,000	IV	Sorting
7	Limited Liability Company "Viva Trans"	490 000	IV	Sorting
8	Closed Joint Stock Company "Eco Development"	200 000	IV	Sorting
9	Limited Liability Company "Geomax"	40,000	IV	Overload
10	Limited Liability Company "Avtomir"	120,000	IV	Overload

11	Limited Liability Company "Viva Trans"	300 000	IV	Overload
12	Limited Liability Company "Charter", Garbage Transfer Station	130 000	IV	Overload
13	Limited Liability Company "MSK-NT", Garbage Transfer Station No. 6	130 000	IV	Overload
14	State unitary enterprise "Ecotekhprom", Garbage transshipment station No. 2 "Chertanovskaya"	250,000	IV	Overload

Sl. No.	Object name	Waste acceptance capacity, tons per year	Type of waste	Hazard Class	Kind of activity
1	2	4	5	6th	7th
1	State budgetary institution "Promokhody", "Environmental Center Kuryanovo"	2,000	The equipment is computer, electronic optical, lost consumer properties	IV	Sorting, disposal and neutralization
2	State budgetary institution "Promokhody", Chemical detoxification and	1,000	Waste of maintenance, repair and dismantling of other	II-III	Treatment



	processing site		vehicles Waste of car filters		
3	State budgetary institution "Prometkhody", Section for processing of sediment of industrial effluent	5,000	Wastes from water supply, water disposal	IV-V	Neutralization of the sediment of industrial effluent
4	State budgetary institution "Prometkhody", Section for processing of sediment of industrial effluent		Wastes from water supply, water disposal	IV-V	Neutralization of the sediment of industrial effluent
5	Joint Stock Company "Mosvodokanal", Kuryanovsk treatment facilities	1,143,750 thousand cubic meters per year (for reception of waste water); sowing amount - 498 698 tons per year	Wastes from water supply, water disposal	IV-V	Wastewater treatment and wastewater sludge treatment
6th	Joint Stock Company "Mosvodokanal", Luberetsk sewage treatment plant	1 095 000 thousand cubic meters per year (on reception of sewage); amount of sediment - 458 304 tons per	Wastes from water supply, water disposal	IV-V	Wastewater treatment and wastewater sludge treatment

		year			
7th	Limited Liability Company "EcoPromTechnology"	1 400	Wastes from equipment and other products containing mercury	I	Treatment, utilization, neutralization of mercury-containing waste
8	Limited Liability Company Scientific and Production Enterprise "ECOTROM RB"	2,000	Wastes from equipment and other products containing mercury	I	Treatment, utilization, neutralization of mercury-containing waste
9	Limited Liability Company Financial and Industrial Corporation "Satori"	2 000 000	Construction and repair waste	IV-V	Treatment
10	Limited Liability Company "Avtobaza Ilinskoye"	200 000	Waste repair and construction	IV-V	Treatment

#### 4.17 Waste Management Policies for New Delhi

New Delhi as a mega city Implements the national waste management policies, Supreme Court directives, High Court of Delhi directives, Environment Protection Rules and National Action Plan prepared by Central Pollution Control Board. The different policies which have been followed by Municipalities for waste management are-

- The Environment (Protection) Act, 1986;

- The Environment (Protection) Rule, 1986;
- The Plastic Waste Management Rules, 2016;
- The E-Waste (Management) Rules, 2016;
- The Bio-Medical Waste Management Rules, 2016;
- The Construction and Demolition Waste Management Rules, 2016;
- The Hazardous Wastes (Management and Handling) Amendment Rules, 2016;
- The Municipal Solid Wastes (Management and Handling) Rules, 2016; and
- The National Action Plan for Municipal Solid Waste Management.

Ministry of Environment, Forest and Climate Change (MoEFCC) categorised waste into six types for proper segregation of wastes: 1) Plastic Waste; 2) E-Waste; 3) Bio-Medical Waste; 4) Construction and Demolition Waste; 5) Hazardous Waste; and 6) Solid Waste. Wastes are categorised according to safe disposal technique and also the effect they produce on environment and living organisms.

**Plastic Waste:** MoEFCC leveled “any plastic discarded after use or after their intended use is over” (MoEFCC, 2016) as plastic waste. Plastic, like other materials we used in our daily lives, is ubiquitous. Use of plastic in planes, cars and other vehicle make them light weight. This improves fuel efficiency, reduces fuel consumption, cut CO2 emission, and improve vehicle performances. Plastic is used as good insulation materials, packaging bags and in many other daily used products. However, due to its non-degradable character it has posed greater threat than saviour. The Million tonnes of plastic litter in oceans are damaging the ocean eco system and an alarming threat. Global production of plastic reached nearly 322 million tonne in 2015. Growing consumption of single use (thrown away the packaging material by consumer after single use which includes lids, straws, disposable cups, cutlery, bags, small pouches) of plastics pile up more waste than necessity. Micro plastics (plastics size less than 5 mm.) posing greater threat to human health as they accumulate in the sea and entered in our food chain (EC, 2018). Plastic due to its severe effect on

wildlife, on wildlife habitat, on human and for its different disposal and recycle method, it is categorised as a kind of waste.

**E-waste:** MoEFCC thinks that any “electrical and electronic equipment, whole or in part discarded as waste by the consumer or bulk consumer as well as rejects from manufacturing, refurbishment and repair processes” (MoEFCC, 2016) is included in the category of e-waste. Today, society revolves around technology. All the governments and private entities heavily using IT as their integral communication system. The world is dependent on IT never before. This rapid development and use of IT lead the massive production of electronic equipment. Use of electronic products like mobile phones, laptops, televisions, plugs, notepads, tablets, cables has been upsurged due to massive use of IT in different sectors. Massive use of electronic products creates large amount of unwanted electronic devices and hence generates piles of e-waste. These wastes create an unpleasant habitat for us. Cathode Ray Tubes, used in computer monitors, street displays, displays of camera, mobile phone, displays at bus stops, railway stations etc. bear materials like lead and barium which release toxic phosphor and pollute ground water. Printed circuit boards and chips used in almost all the electronic product, contains tin, lead beryllium cadmium, brominated dioxin. Lead acid batteries have massive amounts of lead and acid contents. These heavy materials contaminate surface and ground water (Robinson, 2009). The nature of these waste separate them to treat differently for disposal and so E-waste is treated differently for disposal.

**Bio-Medical Waste (BMW):** Bio-medical waste is any waste “which is generated during the diagnosis, treatment or immunisation of human beings or animals or research activities pertaining thereto or in the production or testing of biological or in health camps” (MoEFCC, 2016). Hospitals, clinics and diagnosis centers are vital to our health and to our life. But the wastes generated from these institutions are bigger problems for living organisms. Improper management or indiscriminate disposal of healthcare waste affects directly to the health care workers who have direct exposure and to other people near the hospital or clinical area. It poses health risks and contamination of infectious diseases like AIDS, Hepatitis – B, Hepatitis C which are harmful and life ending diseases. Untreated Bio-edical waste causes air pollution and contaminates ground water and surface water (Kumari, Srivastava, Wakhlu, & Singh,

2013). There are distinct from general waste and other haardous waste and requires separate attention for disposal. So it is being treated differently.

**Construction and Demolition Waste:** MoEFCC defines Construction and Demolition as “the waste comprising of building materials, debris and rubble resulting from construction, re-modelling, repair and demolition of any civil structure” (MoEFCC, 2016). Rise of population accounts for new constructions of roads, buildings, hospitals every day. These construction and demolition of old buildings, maintenance of roads and many other constructed structures produces heavy amount of waste. Though these wastes are not hazardous but account the largest share of waste. So, it is categorised differently.

**Hazardous Wastes:** MoEFCC defines “any waste which by reason of characteristics such as physical, chemical, biological, reactive, toxic, flammable, explosive or corrosive, causes danger or is likely to cause danger to health or environment, whether alone or in contact with other wastes or substances” (MoEFCC, 2016) will be considered as hazardous waste. Research and academic laboratories, experimental firms, power plants produce large amounts of toxic material. As the name emphasizes these waste which poses severe threat to public health and to the habitation. These wastes can have physical form of solid, liquid or gas, but cannot be disposed with solid waste because of its risky nature. Thus, it took a special attention of waste management.

**Solid Waste:** Solid waste is prevalent and well known waste to people and to municipalities. MoEFCC defines any waste “solid or semi-solid domestic waste, sanitary waste, commercial waste, institutional waste, catering and market waste and other non-residential wastes, street sweepings, silt removed or collected from the surface drains, horticulture waste, agriculture and dairy waste, treated bio-medical waste excluding industrial waste, bio-medical waste and e-waste, battery waste, radio-active waste generated in the area under the local authorities” (MoEFCC, 2016) can be understood as solid waste.

Above said Waste Management Rules of 2016 are national policies of waste management and have replaced The Waste Management Rules of 2000. These

acts/rules hold municipality and local governments for management of waste in their respective areas. In January 2018, Delhi notifies “The solid Waste Management By-Laws 2018 for the National Capital Territory of Delhi (NCT)” in accordance with section 5 of Environmental Protection Act 1986. This By-Law is bound to be enforced by all five Municipal Corporation in their respective areas.

## **4.18 Waste Management in Delhi**

In Delhi, waste mismanagement is so prevalent that the apex court (Supreme Court) of Bharat has concerned and told the Government that “Delhi is getting buried under mounds of garbage”. Earlier the apex court also compared the garbage mounds at the Ghazipur landfill site in Delhi with the 73-metre high Qutub Minar which is one of the tallest architecture in Delhi (PTI, 2018). Delhi follows the Waste Management Rules 2016 for efficient waste management. According to this rule all the DMC, NDMC and DCB are being entrusted the waste management of Delhi. For better management it is further divided into twelve administrative zones and thirteen sanitation circle. In Delhi, house-to-house collection practiced by all municipal corporations and NDMC and DCB. Nearly 52,050 sweepers (Safai Karmacharis) are employed in all over Delhi for cleaning and waste collection from which NDMC - 1, SDMC, EDMC accounts 50,000 sanitation employees, NDMC - 2 accounts 1800 sanitation employees and DCB accounts 450 sanitation employees (CCS, 2012). The large chunk of waste generated in Delhi is solid waste and major focus is given to solid waste management in Delhi.

### **4.18.1 Solid Waste Management**

The major portion of waste produced in Delhi is solid waste. Delhi is producing almost 9260 tones/day Municipal Solid Waste. From this only 8300 tones/day is collected. The amount of solid waste treated and landfilled are respectively 3240 tones/day and 5060 tones/day (CPCC, 2017).

The Solid Waste Management Rules, 2016 has lays down duties for waste generator and for government and government agencies. It advises segregation and storing of

the waste generated by waste generator in three separate streams namely bio-degradable, non-bio-degradable and domestic hazardous wastes in suitable bins. Handover of these segregated wastes to authorised waste pickers or waste collectors is also the duty of waste generator. There are eight duties formulated for waste generators. It directs Secretary-in-charge, Urban Development to ensure the implementation of provisions of SWM rules, 2016 in all local bodies. The SWM rules, 2016 prescribe duties and responsibilities for local authority as “prepare a solid waste management plan as per state policy and strategy on solid waste management” and frame bye-laws based on the provisions of SWM rules, 2016 and ensure timely implementation of these by-laws. Considering the collection of generated waste the SWM Rules, 2016 entrusts the urban local bodies that “arrange for door to door collection of segregated solid waste from all households including slums and informal settlements, commercial, institutional and other non-residential premises” and also “from multi-storage buildings, large commercial complexes, malls, housing complexes, etc., this may be collected from the entry gate or any other designated location” (MoEFCC, 2016). In Delhi Municipal Councils are responsible for collection, transportation and disposal of solid waste. The generation of solid waste in five municipal areas are given below.

**Table No. 4.8**  
**Amount of Waste Generated in Delhi, 2015**

Sl. No.	Name of Municipal Authority	Amount of Waste Generated in tones/day
1	North Delhi Municipal Corporation	4200
2	South Delhi Municipal Corporation	2850
3	East Delhi Municipal Corporation	2200
4	New Delhi Municipal Council	300
5	Delhi Cantonment Board	70
	Total	9260

### Waste Collection and Storage

Collection and storage of waste is the most visible work of municipalities. Waste collection means collection waste from the place of origination. In all DMC and NDMC the ratio of sweeping staff per person is 1:216 and 1: 326, which is better than prescribed norm 1:500. For storage, Municipal Corporations, NDMC and DCB are using large bins of capacity 12-16 tonne called “Dhalao” for areas having 1000-15000 residents. Modern hydraulic refuse collection trucks are used to unload garbage bins. Large plastic bins with wheel facility and FRP dustbins are being used in large numbers. Some open dumpsites are used for storage of garbage. Area wise storage is displayed below: Dust level rises during morning due to morning sweeping practice. In many areas sweeping and collection of waste during morning hour became difficult task. So, in many areas of Delhi, night sweeping is being practiced (Chhabra, 2016).

**Table No. 4.9**  
**Area Wise Waste Storage in Delhi, 2015**

Name of Municipal Authority	Storage Containers Dustbins, Dhalaos, Trollies, Metal Containers	Open Dumpsites
North Delhi Municipal Corporation	11508	108
South Delhi Municipal Corporation	4210	296
East Delhi Municipal Corporation	1824	29
New Delhi Municipal Council	3047	18
Delhi Cantonment Board	169	NA



Sources: Delhi Pollution Control Committee, 2015; North Delhi Municipal Corporation, 2015; South Delhi Municipal Corporation, 2015; East Delhi Municipal Corporation, 2015; New Delhi Municipal Council, 2015; and Delhi Cantonment Board, 2015.

### Transport of Solid Waste

Transport of waste is also called secondary collection of waste. It is the process of collection of waste from waste storage container and transporting these till the disposal site. Delhi is using nearly 4178 vehicles: Truck - 409, Dumper – 1381, Front End Loader – 81, Tractor – 34, Auto Tipper – 1003, Refuse Collector – 116 and Tricycle – 1154.

**Table No. 4.10**  
**Vehicles Employed for Transportation of Waste in Delhi, 2015**

Name of Vehicle	Number of Vehicle				
	North DMC	South DMC	East DMC	NDMC	DCB
Truck	102	136	141	15	15
Dumper	225	1156	NA	NA	NA
Front End Loader	23	32	26	NA	NA
Tractor	NA	34	NA	NA	NA
Auto Tipper	402	264	308	29	NA
Refuse Collector	61	27	NA	16	12
Tricycle	NA	NA	1003	151	NA

Sources: Delhi Pollution Control Committee, 2015; North Delhi Municipal Corporation, 2015; South Delhi Municipal Corporation, 2015; East Delhi Municipal Corporation, 2015; New Delhi Municipal Council, 2015; and Delhi Cantonment Board, 2015.

For cost saving and better efficiency in management of wastes in Delhi, six zones with the help of three private operators have been privatised. These private operators collect non-biodegradable/recyclable and bio-degradable wastes differently by installing blue and green coloured bins.

### **Disposal of Waste**

There are four disposal sites/ sanitary landfill sites existing for solid waste processing. Bhalswa, Ghazipur, Okhla & Narela Bawana. At Okhla sanitary landfill site, which was commissioned in the year 1996, the quantity of waste disposed is 450 tonnes/day and Malba 600 tonnes/day, Silt 200 tonnes/day also processed here. The Construction and Demolition Waste of South DMC amounts 600-700 tonnes/day is also disposed at Okhla and Bhalswa landfills. At Shastri Park one Construction and Demolition Waste Plant is operational and it processes 500 tonne/day of waste. This site produces building blocks, building ingredients and paver blocks.

There is a composting plant in Okhla which is processing compost of amount 200 tonnes/day. NDMC has three compost pits in Lodhi Garden, Nehru Park and Talkatora Garden.

New Delhi Municipal Council is converting Horticultural wastes into bio-fuel. About two tonnes of Horticultural Waste is being processed for compost.

Three wastes to Energy Plant are operating with the consent of Delhi Pollution Control Committee (DPCC). Another plant with 1.4 MW capacities has been proposed at West Kidwai Nagar.

**Table No. 4.11**

**Amount of Waste Processed in Waste to Energy Plant, 2015**

sl. no	Name of Waste to Energy Plant	Amount of Waste Processed in tones/day	Power Generated in MW
1	Okhla	1950	16
2	Ghazipur	1300	12

3	Bawana		24
4*	West Kidwai Nagar	70	1.4

\* Proposed, not operational

Source: CPCC Consolidated Annual Review Report on Implementation of Solid Wastes Management Rule, 2016

The sanitary landfill sites are saturating because they have commissioned during 90's. So, there are 31 new landfill sites have been identifies for future use.

#### **4.18.2 Bio-Medical Waste Management**

There are about 1900 no of health care units like hospitals, nursing homes, clinics, dispensaries, veterinary institutions etc. being operated in Delhi. These establishments produce 10.125 tons/day of bio-medical waste.

The BMW Rules, 2016 lays down broad outlines for the occupier of BMW , duties for the operator of a common bio-medical waste treatment and disposal facility, duties of authority, methods of treatment and disposal, rules of segregation, packaging, transportation and storage and monitoring of implementation of BMW Management rule. The MBW rule holds accountable the occupier i.e. health care units for segregation at individual level and in yellow, red, blue and black coloured bags. It emphasizes that “there shall be no secondary handling, pilferage of recyclables or inadvertent scattering or spillage by animals and the bio-medical waste from such place or premises shall be directly transported ...to the common bio-medical waste treatment facility”. The BMW rule entrusts the operator of a common bio-medical waste treatment and disposal facility, to take all required steps “...to ensure that the bio-medical waste collected from the occupier is transported, handled, stored, treated and disposed of, without any adverse effect to the human health and the environment”; to “ensure timely collection of bio-medical waste from the occupier as prescribed under these rules” and to “establish bar coding and global positioning system for handling of bio- medical waste”(MoEFCC, 2016c).

According to BMW rule Delhi Pollution Control Committee is the nodal authority to implement the rule and holds responsible the health care units to “take all necessary steps to ensure that bio-medical waste is handled without any adverse effect to human health”. For the efficient management of the Bio Medical Waste and for the implementation of the Bio-Medical Waste (Management and Handling) Rules, “Bio-Medical Waste Management Cell” has been created in DPCC. The cell oversees the implementation of BMW rule (DPCC, n.d.).

There are three operators of Common Bio-Medical Waste Treatment Facilities (CBWTFs) operating in Delhi. There are also operating of 10 incinerators, which includes three CBWTF, 21 autoclaves and three microwaves in Delhi. Operators of CBWTF have installed Programmable Logic Control (PLC) for better performance of incinerators. All the three operators of CBWTF are collecting and treating the bio-medical waste from their about 3500 member units. They collect bio-medical waste from health care units which are attending less than 1000 patients per month and who are not required to apply for authorization (DPCC, n.d.). Bio-medical waste management is duty of health care units but the disposal sites are provided by Delhi government. Four new sites namely sector 25 in Rohini, Rani Khera Industrial Area, Near Narela and DSIIDC Industrial Area are proposed by the government for disposal of bio-medical waste.

## 4.19 Challenges of Waste Management

Despite all the arrangements and precautions, Delhi is reeling under the acute condition of waste mismanagement. Delhi is simmering under the mountains of garbage. During the study some challenges found are:

**Shortage of fund:** The amount waste generated is large but the fund sanctioned for its management is dismal. The sweepers and other sanitation staff are the lower paid staffs and the cost of living of Delhi do not match to their salary. Fund crunch also leads equipment shortage and then non collection and transportation of garbage to disposal site follows.

**Shortage of waste disposal land:** Local bodies in Delhi continually face the challenge of lack of waste disposal land. This reduces the amount of disposal of waste.

**Lack of infrastructure:** Local authorities say that the existing infrastructure do not match for the collection, transportation and disposal of waste. This leads some amount of uncollected waste in the city, deposition of small garbage mounds in public space and less amount of treated waste disposal.

**Improper segregation:** The Municipal Solid Wastes (Management and Handling) Rules, 2016, fixed the responsibility of waste generator for proper segregation and to ensure delivery of waste. Residents are not about segregation of non-biodegradable and biodegradable leads mixture of wastes. A report says 76% of residents of Delhi believe that glass and metal are biodegradable ([HT, 2017](#)). Segregation of wastes after collection is difficulty task and so mixture of waste reach sanitary landfill site which are being filled unnecessarily by non-biodegradable wastes.

**Lack of data:** The amounts of waste generated, collected, transported and disposed are not accounted properly. Due to unavailability of proper data on waste, proper policies could not takes place and existing policies could not be implemented properly.

**Lack of sanitary landfill site:** All the sanitary landfill sites of Delhi - Okhla, Bhalswa and Gazipur – were declared exhausted as they have exceeded their capacity. Gazipur landfill side is of height 65 meter. Methane being produced from the biodegradable wastes and there is no provision of methanisation or gasifier to control the hazardous gas. These sites are contaminating the ground water. Dumping on these landfill sites is illegal. But Urban Local Bodies still dumping on these sides due to unavailability of new landfill sites.

**Waste management in unauthorised areas and slums:** there are nearly 1700 unauthorised areas and slums existing in Delhi. There are no clear guidelines to collect garbage from slum. Most of wastes remain uncollected in these areas and blockage of drain is frequent here.

**Public awareness and behaviour:** If everything gets well but public is not aware the management of waste will be a tedious task. The behaviour of public towards sanitation and cleanness of city is not encouraging one. Most of residents think it is the work of municipality. Again awareness about segregation is the need of hour because this unnecessarily increase the waste amount at landfill site. The segregation by the generator of waste at home can reduce the waste amount as some degradable waste may convertible to compost.

## 4.20 Conclusion

From the analysis of this chapter, some summary are:

Waste is a by-product of consumption model of human behaviour. People without utilising the product fully, buy a new one and throws the older one. It keeps the economy high but creates large amount of waste.

Waste is not only threat to both the capital cities. But waste is a global threat. Global community accepts this and made numerous policies for that.

In Russia waste is classifies in hazardous and non-hazardous category, which helps to dispose the hazardous waste in safe manner.

In Moscow, collection of waste is great but the disposal of waste is not keeping pace with time. In Delhi, maximum waste is collected manually.

# Conclusion

This chapter has three broad outlines. Summary is followed by concluding remarks and then some recommendation. The study was planned, designed and executed with the objectives such as to understand the concept of ‘Global Urban Governance’; to examine the role of urban local governance in this hyper-changing and inter-connected global urban world; to investigate the challenges caused by increasing amount of waste in urban settlements and to comprehend and analyse the nature of the administrative structure of Moscow and Delhi in reference to policy initiation and implementation to mitigate waste problems.

## Summary

Researcher has designed his thesis in such a manner so that he could find the answer of his research questions and subsequently test his hypothesis with the help of collected data and sources. The thesis has 3 major chapters along with one introductory chapter and one concluding chapter. The introductory chapter basically deals with all the necessary ingredients to conceptualization of this whole study. It consists research problem, research question, hypothesis, research methodology, limitation of study, chapterisation etc. The concluding chapter however tries to analyse the whole study and arguments placed in the earlier chapters in specific reference to research questions and proposed hypotheses in introductory chapter. In concluding chapter researcher would also try to suggest some recommendation on the basis of his study and findings.

Looking at the nature of the research questions in introductory part, the entire research question can be clubbed into 3 major categories i.e. questions related to understanding of governance and public policies, significance of urban local governance etc.; structural aspect of ULGs in both capital cities, factors affecting urban local governance in both capital cities, commonalities and differences in both capital cities; and problems caused by waste in both capital cities and their cop-up mechanism, structures and their functions in Moscow and Delhi. The researcher has dedicated his 3 core chapters to answer all the research questions on the basis of their

nature. Chapter II - “Urban Governance and Public Policy: A Historical and Conceptual Study” which deals with the theoretical aspects related to urban governance and public policy; Chapter III “Constitutional and Structural Aspects of Urban Local Governance in Moscow and Delhi” which highlight the constitutional and structural parts related to ULGs in Moscow and Delhi; Chapter IV “Waste Management: A Comparative Study of Moscow and New Delhi” which analyse the waste related policies, functioning of institutions in both capital cities.

Chapter II extensively discussed the theoretical impetus on urban governance, local governance, public policy. It found that the world urban population at the dawn of industrialisation was only 2%, but as of now it crossed to 55% with a sing of rapid increase. The future of world is urban. It comprehends that the future of the world is urban and hence there is greater significance of urban local governance and public policy in 20th and 21st century. It establishes the relationship among the government, state, society and governance to understand the role of urban local governance in this hyper changing world. Governance is the process of interaction among individuals and institutions. Public Policy is the tool of achieving this interaction smoothly. This chapter highlights the need of exhaustive urban public policy to tackle problems of waste management. It asserts that local issues such as waste has tremendous impact on national and international politics. It found major challenges to urban governance: waste management, globalization, homelessness, migration and pollution. But waste manage is critical issue as it endangers the life, liberty, and property of urban population.

Chapter III tries to comprehend whether the structural part of urban governance is resilient or not. The focal point of the chapter is the comparison organs of LSG of Russia and Bharat as well as of Moscow and of Delhi. In Moscow, LSG institutions are not part of state structure. Waste management is handled at the level of Administratibve Okrug.

In matters of legislation and executive power Indian ULG bodies have larger scope in comparative to Moscow. Again these LSG bodies are directly controlled by different Union Government Ministries, unlike in Moscow where ULSG bodies are not part of state organ.



There is no coherent structure of Russian LSG bodies. Though it has constitutional support, it does not have broader scope within its limits. The limited legislative, executive and financial scope makes these LSG institutions toothless lions.

In Delhi, the Delhi government is not at the helm of affairs related to waste. The five municipalities are in the charge of waste management and are under the central government

Chapter IV tries to understand the role of urban local governance in this hyper-changing, inter-connected global urban world. The empirical data shows here the pathetic condition of both the capital cities, arises due to waste. It found that waste as byproduct of Capitalism.

## **Conclusion**

A universal governance mechanism might not manifest itself as rigid invariance across the cities of the world. There is no universal definition of governance. Governance has different connotations across different institution but it must have a agreeable baseline. The thesis recognise a change in political practice. It should encompass a structure and its process to implement the designed policy. Governments should be enabler of service rather provider of services.

Waste has inextricable correlation with urbanisation and economic development. Economic wealth of countries increase with the pace of urbanisation. This results consumption of goods and services and leads to a corresponding increase of waste. The scientific and technological revolution took us to the era of consumerism. The more we consume products, the more we produce wastes. In Russia waste is classified into hazardous and non-hazardous but in Bharat it is classified into six categories.

The hypothesis is in falsifiable form. Through the intense analysis it is found that the first hypothesis - Structural aspect of urban local governance is incapable to face the growing urban challenges – is rejected. The structural composition of urban governance are well equipped in both Moscow and Delhi. Problems arise only at execution level.

The second hypothesis - inadequate public policy causes waste mismanagement- is also rejected as there are ample of policies exists in Moscow and Delhi.

## **Recommendations**

Data is often inconsistent, incomparable and incomplete. We need data foundation on which waste management policy decisions can be taken.

Jobs related to waste management is doubled in Europe, between 200-2010. It shows that recycling is a first business. Hence reuse and recycle should be prioritise in both Russia and Bharat.

Waste is a global threat. So it is not the responsibility of any single nation. A coordinated effort based on SDG should be taken into account.

Focus should give to strengthen the institutions and increase the human resources in areas related to waste management.

Public-private partnership should be encouraged in collecting, transporting and disposing waste.

Develop comprehensive economic strategies to cope with expense for waste management.

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