Chapter-4
Urban Service Delivery System
URBAN SERVICE DELIVERY SYSTEM

4.1 INTRODUCTION

Urbanization indeed is the most breakthrough paradigm shift that has had a meteoritic effect on the global populace. The impact of this change on the world has seen both progressive and retrogressive changes, wherein, it becomes purely indispensible for the government structures at all levels i.e. international, national, state and local to have an optimum utilization of the available resources; thus, ensuring sustainability in the given milieu. Thereafter, the change in the role of the government from that of a provider to facilitator of services has to accomplish.

From the late eighteenth century the world has witnessed the growth of modern industry which in turn has triggered the massive process of urbanization; thus, transforming new landscapes. This transforming change was first witnessed in the Europe and then in other parts of the world. The growth of cities brought together new opportunities with the influx of populace from rural to the urban hubs. The estimates being in 1900 nearly 13 percent of the people lived in the cities, by 1950 it rose to 25 percent and by 2050 it will rise to 2.5 billion urban dwellers.

“Urbanity can be described as a spatial concentration of people residing in an area, working in non-agricultural activities within a specified space, density and economic organization (Cohen, 2006). Thus, urbanization can be explained as the process whereby people move into these concentrated areas, abandoning their previously rural activities, through forms of rural-urban migration (Motta, Biagiani and Natalizia, 2012). Diverse arguments have been raised about the implications of urbanization, some highlighting its positive contribution to development whilst others claiming that it triggers social problems. On that note, classical economists’ theories argue that inhabitants in rural areas are drawn to urban areas by the industrial wages (Smith, 2012). From the classical economist’s view, industrialization is identified as the driving force behind urbanization. Moreover, the classical economists emphasize that people will continue to migrate to urban areas as long as their anticipated urban wages exceed their current rural earnings, if any. However, the urban bias theory states that the discrepancies in the welfare between urban and rural areas stimulate rural-urban migration and increase urbanization, which ultimately proliferate social ill-being and
urban poverty (Minghong and Pelin, 2012). Nevertheless, in the face of the costs associated with urban expansion, the modernization theory views urbanization as a positive spectacle and upholds that it facilitates economic growth by increasing the modern-sector labour output in developing countries. Notwithstanding this glorification of urbanization, there is overwhelming evidence that the developing world’s rapid rate of urbanization is associated with many social problems such as crime, unemployment, slums, and poor service delivery, which then questions the modernization theory’s positive viewpoint (UNFPA, 2007).”¹ Therefore, as a phenomenon, urbanization has epitomised the human movement of the developing world landscapes.

India is in the motion of growth and development which has resulted in an array of economic opportunities for its populace, thus, providing its citizenry an enriched life. The resilient Indian economy now need to realise and channelize the dynamic potential of the cities and sustain their momentum of growth. India’s urban growth has magnified to 290 million in 2001 to an estimated 340 million in 2008 with projections of 590 million by 2030 (Mckinsey International, 2010); thus, making cities a magnet of growth and employment. Thereafter, the hustle of urbanization will poses an unparalleled managerial and policy confrontations, hence, raising serious questions of accommodating this seismic reallocation of the country.

The state of urban service delivery in the cities of India is far poorer than the income levels of its populace, especially, considering the high levels of the Indian Economy. The picture depicts a policy vacuum risk which will further worsen lead to urban decay with gridlock, wherein, the quality of life of the citizen is expected to decline. Some lock jam issues commonly visible across the nation are floods, traffic jams, accumulated waste matter on the roadsides; and shortage of water supply and pollution of water, air and land making significant contributions to the proliferation of health hazards. Through a study undertaken by the Ministry of Urban Development, Government of India (2009) found that nearly 23 million children under the age of 14 years were at the menace of poor sanitation facilities. These aspects of the urban

agglomerations rather depict a grim picture of urban governance and utilization of the available resources.

4.2 GLOBAL URBAN CHALLENGES

It is also recognized that urban service delivery is an integral part of urban development and enables cities to have economies of scale and economies of settlements. Accordingly, urban policies, institutional arrangements and initiatives have developed a framework of urban infrastructure to produce and deliver urban services to a cross-section of consumers. The citizen focus on services has involved three main factors namely efficiency, resource mobilization and equity. Yet, the gap in the normative base of urban services has significantly increased over a period of time across the countries with a particular reference to developing economies. At the same time innovative methods for alternative institutional arrangements, new patterns of financing covering marked borrowings, Public Private Partnership and community mobilization have also emerged and recognized by international community.²

However, there exist a few common challenges in the delivery of urban services, which are discussed hereunder:

1. **Planning:** Most of the government structure lack an innovative and updated planning framework. The restraining zoning regulations coupled by the inflexible limits of the master plans restrict the accessibility of land as a resource, thereby, leading to a haphazard growth of the cities.

2. **Housing:** The influx of migration due to urban boom in the cities have magnified the population of the urban agglomerations, however, most of the cities have an outdated building regulations which limit the space density; outdated rent control legislations coupled with poor financial infrastructure force a faction of population to house the unauthorized colonies aka slums.

3. **Service Delivery:** Most of the urban services are delivered on only one queue i.e. unclear lines of accountability leading to a strong addition of physical infrastructure, rather than provision of financially and environmentally sound services. This further creates an atmosphere where the service providers are providing quantified services and there is absence of independent regulatory authorities, thus, lacking a qualitative approach.

4. **Infrastructure:** Majority of the local institutions refrain from generating local revenue for the renewal of the existing infrastructure nor devise new means of creditworthiness to access capital market funds.

5. **Environment:** Environmental management is coupled with economic growth and with the brimming urban hubs there is an increase in the climate variability and extreme weather conditions.

In the competitive scenario, as the cities apart from being magnets of urban growth also has to compete for investment by offering improved and superior infrastructural facilities; thus, it is an undeniable fact that the local administration has to give singular consideration to the domains of leisure, culture and heritage, new initiatives such as e-government services and the organizational structure. Moreover, the urban functionality revolves around the public sector performance, henceforth, the administrators have to ensure immediate policy responses whilst creating a room for citizen interaction.
Apart from creating an urban domain there is yet another important task to be handled by the local government i.e. to nurture and harness the talent human potential there must be an enhanced and simultaneous provision of infrastructural facilities to match the growing global competitive atmosphere.  

**4.3 INTERNATIONAL INITIATIVES IN URBAN SERVICES**

Today’s city is thus an amalgamation of planning and entrepreneurial skills, wherein, in the past decades the process of urban service delivery has undergone a significant transformation with the technology at its disposition. Moreover, the planning models are created keeping in mind the further improvement of services with use and updating of the existing resources. This fosters an arena of change, whereby, the ‘rudimentary city’ is leaping to phase of ‘scalable city’ with strong and sincere leadership blended with technological innovation and an bottoms–up approach propelling urban development and growth.

The world is a global village, whereby, innovative experimentation ushered in an avenue fosters development and growth in the other. “A new trend emerging in the business of running cities, with technology as an important component, is the innovative business models that are disrupting the way urban services are delivered.”

A few classifying examples which have set a benchmark across the globe are discussed, hereunder:

1. **Digitally Integrated City:** The capacity of the cities is considered sustainable for both the budget and competence of urban growth and development. Thereafter, the digitalization of urban services has made the life of the citizens much more easy and compatible with governance. The cities which have entered this era of digitalization are the mWallet programme in Barcelona has integrated the urban services in one application through a single technology interface; Peerby, Netherlands reuses goods and tools through peer to peer borrowing services; Seoul, South Korea has initiated “Sharing City Seoul” an interface to resolve city’s social, economic and environmental issues; “Norfolk

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County Council (UK) was facing budgetary constraints, with its IT budget consumed by existing service. It used a cloud-based model to transform municipal service delivery and achieve an overall saving of $10 million.\(^5\)

2. **Public Private Partnerships fostering Urban Service:** The city of Madrid in Spain has been a torchbearer of the amalgamation of public-private partnership catalyzed by the intervention of technology by building an interface known as *Madrid Intelligence (MiNT)*. It allows management of service providers and communication with citizens. The system consolidates data of the citizens captured through sensors, cameras, etc to enable a view of city services; thus, garnering effective citizen response.

3. **The Resilient Case Study of Chattanooga (United States of America):** A city which had faced economy adversary yet it managed to transform its fate by utilizing its potential by the optimum utilization of its resources coupled with technology and infrastructural developments. With the implementation of the Recovery Act 2009 it installed a smart grid energy network which provides secure, affordable and efficient power supply to homes and business centres. Thus, Chattanooga has successfully increased resilience from power outrages.

4. **Water Management through Digitalization:** Netherlands is a nation with its major land cover prone to flood disasters with nearly 70% affect. The country deployed a *Digital Delta* platform that collects data from a sensor network and various existing resources that provides information on a dashboard to avoid any future environmental degradation, thus, preventing such disasters. Thereby, various stakeholders aka through public-private partnership have come together to resolve an urban challenge.

5. **Efficient Transport Management in Auckland:** Being one of the most populous areas of New Zealand and experiencing an influx of population; with the aspiration of becoming one of the most populous cities by 2040, it becomes imperative for the governance to ensure housing, economic and environmental mobility. Thereby, in collaboration with the private

stakeholders the administration has taken the initiative of using big structured and unstructured data which enhances public safety and transport mobility.

6. **Integrated Government Services:** Citizen-administration interaction in Belgium has become a benchmark, world over, as the nation devised a platform, wherein, the population needs to interact once with the administration for their multiple dealings. Thus, they initiated an interface; ‘Maximum Data Sharing between Administration and agencies (MAGDA)’. This framework has eliminated the use of paper and emails, thus, re-engineering and digitizing once-only data collection for faster services.

7. **Agile and Transparent Governance:** The first objective in establishing a pertinent governance configuration is to empower the local governments by the tool of decentralization. This has been successfully achieved by nations such as Denmark and Sweden, wherein, the latter has created a structure known as ‘secretariat for Future’ which intends to develop strategies and methodologies to develop a sustainable future in collaboration with the academia and civil society. The former has undergone the strategizing the increment in the number of municipalities to involve public participation.

8. **Stimulus Tracker:** Innovation has a new face in administration; whilst, the New York Mayor’s office has a NYC Stat Stimulus Tracker which is an online tool which help trace city’s federal funds. Through this tool residents are can follow the progress of their funding, contract and payment levels in various avenues of public service delivery.

9. **The Open Knowledge Foundation:** This nongovernmental organization in United Kingdom has enabled the people with an online portal which provides a visual representation of the usage of public money.

10. **New Business Models:** The city of Hong Kong experienced some of the lengthy challenges in providing business permits, especially in real estate; whereby, the city a single window system to accelerate the process with the creation of software to ease matters, further. It also took initiatives to manage its water systems through mechanized strategies, namely, Four National Taps and ABC Water Supply to sustain the water resources.
11. **Public-Private Collaboration**: The capital city of South Africa, Cape Town in one of its districts i.e. Central Business District (CBD) was struggling with high levels crime with negating impact on its economy. Thereafter, the district along with its various stakeholders, both in public and private sector devised a business plan with a strong performance management strategy to facilitate effective and transparent accountability.

12. **Tree Map**: In Melbourne, Australia the administration has devised a tree map, namely, the *Urban Forest Visual*, which details the lifespan, genus and location of the urban forestry. This data allows its populace to view and submit questions in reference.

13. **Socio-Economic Digital Strategy**: One of the most prominent cities of Canada, Vancouver with a fast paced growing technology and population base wanted to develop a strategy, wherein, there would be connectivity between its citizens and the government through digitalization. Thus, it embarked upon a journey to develop a digital strategy named interface, wherein, a road map was created for public service delivery, citizen participation, digital infrastructure and development of the city’s technology; thus, fostering socio-economic development.

14. **Brownfield Recycling**: In Australia, “Brownfield Recycling” was implemented in the state of New South Wales (NSW). The state’s government created a capital fund, Restart NSW, which uses the proceeds of asset sales and dividends from the efficiency of delivering public service to invest in new infrastructure. Through this effort, the state government has eased taxpayer concerns, earned public acceptance for recycling capital and driven efficiency to fund new infrastructure.6

15. **Economic City**: King Abdullah created a new concept of ‘Economic City’ in Saudi Arabia; wherein, a green field city was launched in 2006 with a vision to drive socio-economic development by privatizing the municipality vide the Special Purpose Vehicle. This initiative promoted extensive private sector

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6 Ibid
involvement to develop infrastructure with the emphasis on transparency, sustainability, citizen empowerment and customer-centricity.

These global endeavours are classifying example of the fact that cities have become attraction magnets of talent and capital, thus, fostering increased ground for global competitive landscape. As the world is experiencing an unprecedented phase of urbanization, indeed the challenges are nail biting but so are its opportunities. The world has witnessed exceptional success in certain areas where we have embraced new initiatives aided by technological intervention to foster new ways of citizen engagement and city governance. Thus, it is the appropriate time for the cities to propel their peregrination of sustainable, citizen-friendly, economically vibrant, accessible, and resilient growth.

4.4 URBAN SERVICE DELIVERY SYSTEM IN INDIA

India, as a country has entered a major phase of transitioning in the process of urbanization; this is clearly evident in the inevitable growth seen in the Cities, which are subjected to its maximum exposure. In a 2006 report, India’s Registrar General suggested a rise of 248 million people living in cities between 2001 and 2026. The 2010 McKinsey Global Institute Report on ‘India’s Urban Awakening’ suggests a rise of 250 million citizens between 2008 and 2030. That means between 10 million and 11.4 million new people to be accommodated in Indian cities every year. 

Amidst such unprecedented growth the Cities can be referred to as engines of growth, thus, they have to be developed on the connotations of economic development, sustainability and social equity. This requires major planning and intensified governance at all the three levels of the government, i.e. National, State and Local. Moreover, the cities of the developing world are faced with serious challenges in the context of finances, governance, equitable distribution of resources, land use, etc.

The growing pace of urbanization has made the delivery of urban services an indispensable as of the modern day governance, with the following statistics the shape of urban services is changing with the changing socio-economic dynamics:

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Based upon the above mentioned statistical data, it is evident that urban growth is the most breakthrough transitioning phase in the history of the country, whereby, the government needs to ensure the procedure of governance suiting the needs and necessities of the people. Herein, the essence of this chapter, Urban Service Delivery forms the steering wheel of overall development with the following prevailing standards of the urban infrastructure in the nation:
74th Constitutional Amendment Act, 1992: The constitutional arrangement saw the inception of Urban Local Bodies for the disposition of efficient urban service delivery to strengthen the urban development. However, many states are yet to decentralize the functions of the municipalities which has resulted in the overlapping of responsibility and no accountability to the citizenry.

Institutional Arrangements: In the ambit of the above mentioned legislation, the institutionalization of Municipal Government mainly comprise of Constitutional Provisions, State Municipal Laws, State Finance Commission, Central Finance Commissions, Urban Local Bodies and parastatals. Herein, through public-private partnerships outsourcing has been adopted to improve the accessibility of public services (JNNURM).

Solid waste, Water supply and Sewerage: The growing population in India has created tremendous pressure on the availability and accessibility of these services; statistics reveal that less than 20% of solid waste is being treated, only 40-60% people has access to water supply and 30-50% of houses do not have sewerage system. Thus, it is a very grim picture of these services in the urban milieu.

Land Use: To enhance the standards of life, some of the countries have raised their infrastructure by bring the land resource under optimum utilization in collaboration with the private sector (Spence, Annez, Buckley, 2009). Several such schemes have been implied in India too, namely, Floor Space Index, Transfer of Development Rights, Impact Fee, Area Linked Development Charge, etc; but these measures have been neither been adequate nor feasible. As with the increase in infrastructure there is an increase in the land value.

Urban Transportation: The urban mobility is directly proportionate to the urban problems. Some of these teething issues are imbalance modal split, inadequate transport infrastructure, no or little integration between land use and transport planning, lack of efficient public transport, etc. Although, the National Urban Transport Policy (2006) was enacted yet it primarily focused on mobility of people rather than vehicles.
➢ **Innovative Financing Strategy:** The government of India has initiated the market based funding system in collaboration with the private sector to mobilize the working of the municipal governance. So far 12,399 million have been mobilized through taxable, tax-free bonds and pooling finance (*Ahmedabad Municipal Corporation was the first ULB to initiate this step*).

Thus, there has progress in the avenue of urban services through measures like reform linked investment in infrastructure, government responses in the form of *JNNURM, AMRUT* and *SMART CITY MISSION, SLUM REHABILITATION ACT*, etc. yet the urban local bodies have to take up city management as an imperative, wherein, they can take up policy changes along with administrative actions.

Some facts about urbanization which have formed the foundation of urban growth, thus, creating a channel of eminent attention to the development of urban services have been discussed, hereunder (*Census, 2011*):

1. Eighteen states and nine union territories have recorded high levels of urbanization than the national average of 31.16 percent.

2. Western coast and southern India have depicted comparatively higher levels of urban growth than the national average along the standards of northern states, NCR region, Andaman and Nicobar Islands. Most importantly, it has been observed that the states of Punjab, Haryana and West Bengal have developed a sound economic base for a strong and supportive urban growth.

3. Lastly, remaining part of the country has shown slow levels of urbanization between the ranges of 10 to 31 percent than the national average.

The 2011 Census has brought a remarkable feature pertaining to growth of urbanization since independence, which deserves a special mention, i.e. the emergence of new towns and their subsequent development. A tabulation of the aforesaid data highlights the fact that urbanization entered a transitioning phase in the first decade of the 21st Century with its aim of transcending into the due course for the upcoming decades. The growing number of towns narrates the story of cognizance in lieu of economic character of human settlements and their subsequent planning for urban policies.
Therefore suitable economic base needs to be created among 7477 small and medium sized towns which have potential to generate competitive edge due to their access to labour force within the town and their hinterland. We may recall that these urban centres can absorb a sizable part of surplus and unskilled labour force provided their economic base is upgraded suitably. This may include arrangements for secondary education, vocational training and developing agro-based and related industries and other economics activities. We may also recall that as per Labour Report of Mckinsey & Company, the global economy in the next twenty years will add 94 million surplus and unskilled labour out of which India will constitute 47 million or 50 per cent of such labour. (Mint, 7 June, 2012) This can erode our competitive edge if corrective actions are not taken. Small towns in this regard deserve spatial dispersal of economic activities.

It is particularly important that some major lower per capita SDP states such as Bihar, Odisha, Madhya Pradesh, Chhattisgarh, Jharkhand etc. have shown substantial increase in the census towns which can be used to trigger urbanization process and economic development among these states. These centres should be viewed as potential focus areas to absorb future urbanization to achieve a balanced urban growth across the country.

The following Table illustrates the increased emergence and growth of towns and cities since independence i.e. 1951-2011, respectively:

**4.1 INCREMENT IN THE NUMBER OF TOWNS AND CITIES (1947-2011)**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>NO. OF CITIES &amp; TOWNS</th>
<th>NET INCREASE</th>
<th>PER CENT CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>3035</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1961</td>
<td>2657</td>
<td>-378</td>
<td>-88</td>
</tr>
<tr>
<td>1971</td>
<td>3081</td>
<td>424</td>
<td>16</td>
</tr>
<tr>
<td>1981</td>
<td>3891</td>
<td>810</td>
<td>26</td>
</tr>
<tr>
<td>1991</td>
<td>4615</td>
<td>724</td>
<td>19</td>
</tr>
<tr>
<td>2001</td>
<td>5161</td>
<td>546</td>
<td>12</td>
</tr>
<tr>
<td>2011</td>
<td>7935</td>
<td>2774</td>
<td>54</td>
</tr>
</tbody>
</table>
Urbanization is therefore a positive change making significant contributions in the national development with the nation gearing up for an unprecedented and rapid urban expansion to make the country a hub of urban majority. A large number of towns experiencing polarization of population, especially in Class I towns (with a population of 100000 and more) and metro cities are the platform of urban governance with a complete utilization of spatial dispersal of economic activities to achieve a suitable urban growth.

4.5 CHALLENGES OF URBAN SERVICES IN INDIA

Although there are the above mentioned guidelines and strategies, yet to match the unparallel and unprecedented growth of the populace, India as a developing country is facing the following bottlenecks. Moreover, urbanization is a process which is highly influenced by the economic growth, thus making the towns and cities the magnets of growth, especially economic opportunities. With less than 1/3rd of India’s people, its urban area’s generate more than 2/3rd of the country’s GDP and accounts for 90% of the total government’s revenue (World Bank, 2011).

Due the rapid expansion of people migrating from the rural to the urban milieu, urbanization has expanded magnanimously, with the availability of a limited land resource and the unlimited influx of population the creation of slums has aggravated unexpectedly; them accounting for 1/4th of all urban housing. Thereafter, before any policy framing or execution, it becomes imperative to highlight India’s soaring issues which continue to be a matter of strategic concern. The challenges of urban service delivery are discussed, hereunder:

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Census 2011
4.6 THE INDIAN IMPLICATIONS OF URBAN SERVICES

Today in the hullabaloo of urban growth and whilst it’s subsequent planning have transformed Cities as engines of development but the growth bereft of their environmental concern is diconcerting. Inspite of various legislations the urban picture is less rosaceous as millions in the cities cannot meet their basic needs of housing, sanitation, education, land use, water supply, transportation, education, etc., thus, making the cities harness the available resources at an infuriated rate. Thereby, the measure of urban planning and growth is the availability and accessibility of urban services, whereby, some cities have set a benchmark of development by making an inclusive collaboration of various existing facilities. A few domestic examples are discussed, hereunder:

1. **Public-Private Partnership, Mumbai:** ‘Geetanjali Industries’ in Mumbai is an example worth emulating with reference to Public-Private Partnership as though being privately owned it works in collaboration with Municipal Corporation of Greater Mumbai for dry waste recycling. The industry and its various units in 10 different cities employs waste collectors which is then sent to the MC dumping site for further sorting. The company intends to employ

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displaced girls, especially victims of prostitution. Lastly, for its workers they also provide various schemes and benefits.

2. **Urban Management through Heritage Conservation, Surat:** With a population of over 250 million, Surat is the ninth largest city of the country and second largest of the state; also a city with rich heritage of over 3000 buildings. The Municipal authorities initiated the revival of its heritage value by surveying various aspects of the data available and consultative meetings to collaborate the local stakeholders. This practice of data mapping and constructing further accordingly helped to create a link between the people and the administration to enhance the development of city keeping the heritage, economic development and governance in the ambit.

3. **City Planning through Slum Renewal, Dattawadi, Pune:** The worst hit areas post the floods of 1997 were the slums of Pune, although the sixth largest city of the nation, it had no sustainable plans to relocate the displaced populace. Shelter Associates, a non-governmental organisation in collaboration with the Pune Municipal Corporation took up the work of planning and constructing homes for the people using GIS and Remote Sensing Technology. One of a kind initiative it also formed the incorporation various government programs, namely, RAY, JNNURM, SRA, etc. Thus, the land use pattern saw a new face through technology.

4. **Eco-City, Lavasa:** It is India’s first eco-city with a bold project created on the lines of new urbanism with the aim of making the city eco-friendly, sustainable and innovative. This approach of planning amalgamates inclusion of energy ratings for the buildings, recycling sewage for irrigation and composting and generating energy through renewable resources. The key feature of this process is the use of ‘bio mimicry’ or ‘biometrics’, wherein, the planning design studies nature’s best ideas and mimics them.

5. **Riverfront Renewal, Ahmedabad:** The Sabarmati River Project initiated in 1997 was aimed with the revival of the river front to accommodate a population of 6.58 million. Ahmedabad is one of the fastest growing cities of the country converted the river banks as the sites of squallid inhabitants, thereby, this project was undertaken undermining the land utilisation strategies along side
the river banks, to make it environmentally sustainable. The strategy adopted, herein, was to sell out the adjoining land (14.5%) for residential purposes to use the finances generated for the project. Moreover, 14,555 slum dwellers affected by the project were located; thus, restricting the accumulation of untreated sewage and environmentally unsuitable content into the river bed.

6. **Transport Information System, Bengaluru:** The Mapunity Information System developed to suit the ever growing needs of the people fosters the growth of a network in the city which is managed and controlled by technology. Through this step a platform has been created, whereby, the administrators are helped to build competitive cities as on a single platform it amalgamates the services viz. transport, public health, security, environment and economic development, emergency services, etc. Thereby, through such measures an effort is made to be democratic and accountable for both the leaders and the populace.

7. **Urban Environment Rejuvenation, Kolkata:** The city is the 13th most populous metropolitan area in the world, located on the banks of river Hooghly, also known as the commercial capital of eastern India it accommodates nearly 14,787,000 people. To cater to the improvement of the infrastructural facilities of the city along with the reduction of poverty in low income areas, the Kolkata Environment Improvement Project was initiated. The underlying approach of the program was to identify priority activities and initiate processes which can yield results over life. The main pillars of this program were organizational development, governance, social inclusion, resource mobilization, improved financial management, urban planning, environmental management and computerization of the municipal records.

The exclusive nature of urban growth is vested in the various programs and schemes undertaken by the state and city governments to provide the most affordable, accessible and available urban services to its citizenry. The future administration may shift a focus of thrust to small and medium towns with special reference to the economic development of these areas. Thus, it is only by shifting the transition of urban planning to the intermediate urban milieu that the pressure of urban services can be suited to accommodate the all-encompassing and ever growing population. The
case studies mentioned above are evident of an exemplary amalgamation of public-private interface created to abridge the lacunae in the delivery of urban services.

4.7 URBAN SERVICE DELIVERY IN PUNJAB

India, being the world’s second most populous country with the second largest urban system has been experiencing tremendous growth in its urban populace whilst encountering simultaneous bottlenecks in coping up with the urban growth patterns. A nation with a federal structure which aims to instil management and administration of urban services to foster urban development; wherein, historically speaking the provincial governments have controlled the process of urbanization but their capacity to perform has not strengthened to cope up with limited devolution of powers and responsibilities to cope of up with challenges of poverty, urbanization, infrastructure and services. Thereafter, the local units of government are defied the substantial powers, functional and fiscal domains, thus, leading to a haphazard civic arrangement.

The history of local government in India, with special reference to urban governance, has witnessed the timeline of Indus Valley Civilization (5500 BCE) to the National Urban Policy (2013) with an array of diversification and transformation in weaving out the perceptions of urbanization and urban governance. Despite various legislations, local government institutions and urban reforms in lieu of urbanization, both in India and Punjab, have not been able to achieve any significant functional, jurisdictional and financial autonomy. The major reasons to the aforesaid condition lie in the lack of administrative expertise and inadequate devolution of funds. However, this could hinder the expansive growth of industrialization and economic development leading to the creation of vibrant urban centres, namely, Mumbai, Kolkata, New Delhi, Hyderabad, Bengaluru, Jaipur, Ludhiana and Chennai are a few to name. The pace and patterns of growth have set pulsating trends of urbanization, thus, creating demographic, social, economic, infrastructural and political imbalances.

Punjab, the fifth major urbanised state of the nation has been experiencing unprecedented urban growth due to immense industrial and economic growth. Though the constitutional mandate of the 74th Constitutional Amendment Act, 1992 have laid down certain guidelines of urban governance but the growing poverty, housing problem, environmental issues and infrastructural and service related aspects have not
led the administrative agencies achieve the challenges of urban growth. No important strategies have been undertaken to foster the capacity building facet to improve the functionality of the local government structures.

In the state of Punjab it was through the enactment legislations such as the Punjab Municipal Act, 1911; the Punjab Municipal Corporation Act, 1976 and the amendment of the aforesaid acts in 1994 to adjust with the constitutional mandate of 74th Constitutional Amendment Act, 1992 the municipalities were created in three categories, namely, Nagar Panchayats (for transitional areas), Municipal Councils (for small urban areas) and Municipal Corporation (a large urban area with a population of over three lakh and a minimum revenue generation as directed by the state government). Though these legislations have provided administrative and fiscal autonomy to the urban governance structures yet they have failed to manage the verbatim of incorporation.

The urban population in Punjab has witnessed 25.9 per cent increase over the past decade with the State’s population increasing from 2.45 crore in 2001 to 2.77 crore in 2011 comprising 37.5 per cent in urban areas. The urban component of Punjab population has increased from 33.9 per cent in 2001 to 37.5 per cent in 2011, with all the districts recording an increase in percentage of urban population. In India, Punjab ranks thirteenth among States and Union Territories in terms of urbanisation bringing it among the States which are relatively urbanised. Top on the list is Ludhiana district with 59.16 per cent of urban population, followed by SAS Nagar (Mohali) with 54.76 per cent, Amritsar with 53.58 per cent and Jalandhar with 52.93 per cent with more than half of their population residing in urban areas.10

This expansive growth in population of Punjab has resulted in the growth of urban areas as an outcome of rapid industrialization, migration from rural to urban areas for better standard of living, especially, the employment opportunities; thereby, posing obstacles to the urban governance institutions with reference to the delivery of basic urban services. Being a pioneer in local governance, Punjab is the fifth state in the country after Tamil Nadu, Maharashtra, Gujarat and Karnataka to have an urbanized status, thereafter, the task of the local government in the delivery of urban services

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becomes most demanding and sincere with teething problems of housing, environment, infrastructure, poverty, etc.

Historically speaking the institutions of local government were not empowered to meet the aggravating urban challenges; however, the due passage of time has seen the development of important legislations which have successfully inculcated initiatives to draw a link between means and needs. The Municipal Act, 1911 marks the dawn of local self-government legislations with the Punjab Municipal Corporation Act, 1976 governing the functioning of nagar panchayats, municipal councils and municipal corporations, respectively. This was further amended by breakthrough 74th Constitutional Amendment Act, 1992 by the Government of India through the Punjab Municipal (Amended) Act, 1994 and the Punjab Municipal Corporation (Amended) Act, 1994 confirming the basic creation of urban units as per the nomenclature (based on demographic dividend) defined in the legislation. As depicted in the table below:

### 4.2 URBAN LOCAL BODIES AND THEIR STRUCTURE

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>CLASS OR URBAN LOCAL BODIES</th>
<th>POPULATION</th>
<th>REVENUE GENERATED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Municipal Corporation</td>
<td>3 lakh or above</td>
<td>2 crore or above</td>
</tr>
<tr>
<td>2</td>
<td>Municipal Council Class-I</td>
<td>50000 to 3 lakh</td>
<td>50 lakh to 2 crore</td>
</tr>
<tr>
<td>3</td>
<td>Municipal Council Class-II</td>
<td>10000 to 50000</td>
<td>15 lakh to 50 lakh</td>
</tr>
<tr>
<td>4</td>
<td>Municipal Council Class-III</td>
<td>Up to 10000</td>
<td>Up to 15 lakh</td>
</tr>
<tr>
<td>5</td>
<td>Nagar Panchayat</td>
<td>5000 and above</td>
<td>More than 150 per head</td>
</tr>
</tbody>
</table>

Both the acts have been amended in the Punjab Legislature as per the guidelines for the composition of Municipalities (Article 243R), for the constitution of Ward Committees (Article 243S), for the reservation of seats and offices (Article 243T), duration of Municipalities (Article 243U), powers and functions of the Municipalities (Article 243W), power to impose issues (Article 243X), for the constitution of a Finance Commission (Article 243Y), State Election Commission (Article 243ZA read
with Article 243K), a Committee for District Planning (Article 243ZD) and a Committee for Metropolitan Planning (Article 243ZE), respectively.

One of the prime facets of the 74th Constitutional amendment Act, 1992 was the active representation of people’s participation in grassroot democracy. Since its inception the role of the Councillors has been significant to transform the outlook of the populace. Thereafter, before the aforesaid parent legislation there was no Principal Act governing their creation and constitution. In Punjab the state government has taken into consideration the population and earning capability of the urban centre/area for fixing the number of Councillors to be elected into these structures. (Singh & Singh, 2008)

Moreover, to cater to the rapidly growing urban population with brimming industrialization and rural migration escalating issues of land prices and rents, creation of slums, shortage of basic amenities, lack of infrastructure, etc. have particularly created alarming situation in large cities such as Ludhiana, Amritsar, etc. The functional domain of the civic services has its leaf in the Twelfth Schedule to the 74th CAA, 1992 is an illustrative list of functions to be performed by the municipal bodies and not a directive feature. The incorporation of Article 243W, which deals with powers, functions, and responsibilities of municipalities has not made any change in the functioning of the municipalities as major functions are preformed through departments like Education, Health, Public Works Department or through parastatal agencies like Punjab Water Supply and Sewerage Board (PWSSB), State Urban Development Agency (SUDA), Town Country Planning (TCP), and Punjab Urban Development Authority (PUDA).  A description of which has been discussed in the table below:

---

### 4.3 PERFORMANCE OF MUNICIPAL FUNCTIONS PERFORMED BY ORGANIZATIONS IN PUNJAB

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>FUNCTIONS</th>
<th>ORGANIZATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Urban planning &amp; town planning</td>
<td>Town and Country Planning/ PUDA</td>
</tr>
<tr>
<td>2</td>
<td>Regulation of land use &amp; construction of buildings</td>
<td>Town and Country Planning/ PUDA</td>
</tr>
<tr>
<td>3</td>
<td>Planning for economic and social development</td>
<td>Departments of Planning &amp; Social Welfare</td>
</tr>
<tr>
<td>4</td>
<td>Roads and Bridges</td>
<td>Public Works Department (PWD)</td>
</tr>
<tr>
<td>5</td>
<td>Water Supply (domestic, industrial &amp; commercial)</td>
<td>PWSSB &amp; ULBs</td>
</tr>
<tr>
<td>6</td>
<td>Public health, sanitation and solid waste management</td>
<td>Solid Waste Management (ULBs) and sewerage (PWSSB and ULBs)</td>
</tr>
<tr>
<td>7</td>
<td>Fire Services</td>
<td>ULBs</td>
</tr>
<tr>
<td>8</td>
<td>Urban forestry and promotion of ecological prospects</td>
<td>Deptt. of Forest, State Pollution Control Board, State Council for Science, Technology and Environment &amp; ULBs</td>
</tr>
<tr>
<td>9</td>
<td>Safeguarding the interests of the weaker and physically disabled sections</td>
<td>Social Welfare Department</td>
</tr>
<tr>
<td>10</td>
<td>Slum improvement and upgradation</td>
<td>ULBs</td>
</tr>
<tr>
<td>11</td>
<td>Urban poverty alleviation</td>
<td>ULBs</td>
</tr>
<tr>
<td>12</td>
<td>Provision of urban amenities viz. parks, playgrounds, etc.</td>
<td>ULBs</td>
</tr>
<tr>
<td>13</td>
<td>Promotion of cultural, educational and aesthetic aspects</td>
<td>Departments of Culture, Education and Public Relations</td>
</tr>
<tr>
<td>14</td>
<td>Burials and cremation grounds</td>
<td>ULBs</td>
</tr>
<tr>
<td>15</td>
<td>Cattle ponds and prevention to cruelty against animals</td>
<td>ULBs</td>
</tr>
<tr>
<td>16</td>
<td>Registration of births and deaths</td>
<td>ULBs</td>
</tr>
<tr>
<td>17</td>
<td>Public facilities such as parking spaces, street lights, bus stops and public convenience</td>
<td>ULBs and Department of Transport</td>
</tr>
<tr>
<td>18</td>
<td>Regulation of slaughter houses and tanneries</td>
<td>ULBs</td>
</tr>
</tbody>
</table>

---

12 Master Plan Ludhiana (2021)
In the wake of growing urbanization, the state of Punjab has taken certain drastic measures and initiatives, both directive and illustrative to meet the demands of urban infrastructure, urban finances, poverty alleviation, environmental management, etc. popularly known as urban service delivery; yet, the process of urban governance in Punjab is at the crossroads of regressive and progressive development. The discussion above clearly indicates that in the ambit of the parent legislation of 74th CAA, 1992 the state government has taken some drastic measures to mandate political and financial autonomy to the local government institutions along with democratic decentralization of funds, functions and functionaries. However, some of the teething issues inspite of this development have been discussed, hereunder:

1. The creation of parastatal agencies such as Punjab Urban Development authority has been given the task of urban social and economic planning instead of the ULBs. This has diluted the autonomy and performance of the latter.

2. Article 243W, which provides for the powers, authorities and functions of the municipalities has a list of illustrative transferable functions for the development of urban planning; these functions have no intentions of being transferred yet.

3. The amendment of the Punjab Municipal Act, 1976 in 1994 does not include the Mayor in the list of authority for carrying out the provisions of the Act.

4. Article 243X has not been implemented with respect to financial devolution of funds, thereafter, the state government authorizes in the collection, imposition and management of taxes. It is only the Ludhiana Municipal Corporation which has assessed the private market through assessment of mutual bonds. However, there is absence of general political will.

5. The resultant apathy of lack of financial autonomy does not allow the growth of municipalities and they refrain from taking any new projects. In lieu of this the recommendations of the State Finance Commissions have not been considered, too.

6. Although 74th CAA, 1992 have marked the essence of elections at the local level, yet the State holds the prerogative to dissolve an elected municipality.
7. The economic sphere of the ULBs in Punjab has been unsatisfactory due to low tax collection and absence of periodic revision of taxes.

8. The Government of India has launched a Model Municipal Law whose provisions provide for a holistic development; however, these have found a place in the Punjab Municipal Bill, 1999 which is awaited for the central approval.

9. The fact that infrastructural facilities do not pay for themselves and the government does not have ample resources to meet the growing demands of the citizenry, both physical and financial. Thus, there is a lacuna in the volume and quality of services. It is high a time to resort to a commercial approach (NCAER, 1996).

10. The state performance under various central schemes has been fairly satisfactory due to lack of political will and slow disbursement/generation of funds.

11. There is a bright scope of Public Private Partnership which will also rejuvenate and innovate the infrastructural facilities with recent advancements of technology. However, only Ludhiana and Chandigarh Municipal Corporations have been able to achieve the benchmark.

The process of urbanization is clearly a promising phenomenon in the state of Punjab with the capacity of the local government to counter challenges of urban services through various legislations, laws, bye-laws, schemes, policies, etc. Although the municipalities have been empowered yet the deficient urban service mechanism coupled with poor financial and functional base is adversely affecting the quality of life.

4.8 URBAN SERVICES IN LUDHIANA

India is urbanising and so is Punjab with significant illustrations in a politically and socially viable urban hub aka the city of Ludhiana. The city has the largest population base with an approximate contribution of 22,192 crore in the GDP (2009-10) with a 16 percent share in the state’s economic growth. The prime economic pillar of the city is its industrial base with the diverse industries comprising of cycle and auto industry,
hosiery and cloth industry, machine parts, woollen industry, etc. Also, historically speaking its location alongside the river banks of the Satluj River has contributed to its spatial expansion. Thereafter, both the prime location and the strong economic base of the city have been the strong factors for urbanization in the past few decades. Moreover, the various aspects of urban growth do not support its sustainability as the increasing population is utilizing the very existent resources available which have a staggered growth. Thus, the delivery of urban services and its management with adequacy and equity to all sections of the society is becoming a major hindrance in urban governance.

The various facets of urban policy perspectives in the city of Ludhiana have been discussed in the previous chapters, with special emphasis to the aspect of land use and town planning with its functional domain and functionaries. This chapter will primarily focus on the organization agency involved in urban services i.e. the Municipal Corporation of Ludhiana and a few challenges faced by the city in the avenue of urban services.

### 4.9 LOCAL AGENCY INVOLVED IN URBAN SERVICE DELIVERY

#### LUDHIANA MUNICIPAL CORPORATION

**STRUCTURE:**

<table>
<thead>
<tr>
<th>ZONE A</th>
<th>ZONE B</th>
<th>ZONE C</th>
<th>ZONE D</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SUB ZONE</strong></td>
<td><strong>WARDS</strong></td>
<td><strong>SUB ZONE</strong></td>
<td><strong>WARDS</strong></td>
</tr>
<tr>
<td>A1</td>
<td>08,58,60,61,85,86 &amp; 88</td>
<td>A1</td>
<td>20,52,53,55-57(PARTLY) &amp; 63(PARTLY)</td>
</tr>
<tr>
<td>A2</td>
<td>54,56,62,63(PARTLY) &amp; 64</td>
<td>B1</td>
<td>36,11,19,24,35,36 &amp; 27(PARTLY)</td>
</tr>
<tr>
<td>A3</td>
<td>1,2,3,4,5,6,9,4 &amp; 95</td>
<td>B3</td>
<td>7,9,10,11,12,13,14 &amp; 15</td>
</tr>
<tr>
<td>A4</td>
<td>57(PARTLY), 59,84,87 &amp; 89</td>
<td>B4</td>
<td>18,21,22,23,27(PARTLY) &amp; 28(PARTLY)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

**FIGURE 4.1**
BRANCHES:

The Municipal Corporation of Ludhiana has the following branches for its functioning:

1. Accounts & Audit
2. Advertisement
3. Building & Roads
4. Complaints & Enquiry
5. Computerization Branch
6. Drawing & Building
7. Establishment
8. Estate
9. Health & Sanitation
10. Horticulture
11. Legal
12. Lights
13. Licensing Branch
14. Operations & Management (O & M)
15. Police
16. Projects & Divisions
17. Sales & Property
18. Tehbazari
19. Workshop

PROJECTS:

The following projects have been covered for the urban service delivery by the organization:

A. **WATER SUPPLY & SEWERAGE:**
   - 100 percent water and sewerage coverage
   - Augmentation of sewerage plant
   - Cleaning of mine sewer lines by super suction machines
   - Maintenance of contracts of tube wells, water supply and sewerage
B. **ROADS & TRANSPORTATION**
   - Eight lane road from Sidhwar Canal to MC road
   - Development of missing link 1 & 2
   - RUB near lodhi club Ludhiana
   - Construction of ROB in Lakkar Bazaar

C. **HEALTH & SANITATION**
   - Integrated solid waste management
   - Mechanized sweeping and washing of important roads
   - Development of dairy complexes
   - Modernization of slaughter houses

D. **URBAN POOR**
   - Construction of 4832 houses for urban poor
   - Implementation of Rajiv AwasYojana

E. **GOVERNANCE REFORMS**
   - Delivery of various services through web based Suvidha services
   - Integration of unique I.D Card system with a data base at the MC
   - GIS based comprehensive e-governance project
   - Consultant for financial reforms at the MC
   - Operationalisation of new schemes of certification by Architect
   - Introduction of Saral Application Forms for residential building plans upto 200 square yards
   - Declaration of public streets
   - Master Plan for outdoor advertisement including the street furniture as per the Outdoor Advertisement Policy 2012.
   - Unplanned and haphazard sprawling adversely affect and reduce open/green spaces, reduce fertile cultivation land, increases pollution (air, noise, water, waste), decreases aesthetic appeal of landscape.
   - Thereby, degrading the overall quality of life. In addition to this, urban sprawl places unnecessary strains on urban services, such as, local finance, social structure and equity. In Ludhiana city, haphazard and unplanned urban growth has resulted in exponential expansion of urban built-up areas from 1955 to 2009.
Outcome of such developments is visible in serious shortfall in urban infrastructure, rise of pollution and existence of unhygienic living environment. However, the Punjab government has initiated *Master Plan* for Ludhiana M.C for planned development of the urban area. Landscape metrics provide many facilities in landscape ecology studies (Gökyer, 2013).

These measurements allow a very robust characterization of urban form (Banister et al, 1997; Longley and Mesev, 2000; Martin, Scepan, and Clarke, 2002) and are useful for representing urban processes and functionality and contribute to urban models (Martin et al., 2002).

Temporal and spatial analysis can be done utilizing these metrics to assess landscape structure and human effects in changing landscape of a region. This study demonstrates the utility of landscape metrics in conjunction with remote sensing and GIS techniques to assess dynamics of Urban sprawl in Ludhiana city.

Thereby, it is evident from the above discussion that the organizational structure along with the work undertaken by the deemed body, namely, the Ludhiana Municipal Corporation (LMC) has been focussing on various aspects of urban planning, however, due to population expansion the city has been experiencing urban sprawl. The urban built-up area in the city has developed haphazardly due to lack of planning and in-migration. There is unequal spread of population in the different parts of the city with multifarious physical, social, economic and infrastructural problems. The rapid pace of industrialization has deeply deteriorated the environment of the city with increasing levels of air and water pollution; thus, making solid waste management a herculean task. These aspects of economic sprung and deteriorating standards of urban services has degraded the overall quality of life in the city. Although, the city government has initiated the Master Plan for the planned development by the Ludhiana Municipal Corporation yet there is visible abysmal and pitiable patterns of growth.
4.10 DATA ANALYSIS

In the data collected for the aforesaid study, aka to evaluate the status of urban service delivery and the role of the various operating agencies through a structured questionnaire and formal/informal interview from a sample size of 300 i.e. 150 officials and 150 citizens, using the Rensis Likert 5-Point Scale, the data was analyzed using the Mann-Whitney Test.

4.11 MATRIX SUMMING UP THE TESTING OF HYPOTHESIS

HYPOTHESIS:

Due to unbalanced coordination amongst the operating agencies there is imbalanced regional growth.

The test so conducted had two independent variables i.e. the Officials and the Citizens, whereby, the results upon analysis depicted the following observations:

4.4 TABULAR REPRESENTATION OF THE DATA ANALYSED

<table>
<thead>
<tr>
<th>Ranks</th>
<th>Group</th>
<th>N</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td>q7</td>
<td>Official</td>
<td>150</td>
<td>148.97</td>
<td>22345.00</td>
</tr>
<tr>
<td></td>
<td>Citizen</td>
<td>150</td>
<td>152.03</td>
<td>22805.00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>q8</td>
<td>Official</td>
<td>150</td>
<td>114.00</td>
<td>17100.00</td>
</tr>
<tr>
<td></td>
<td>Citizen</td>
<td>150</td>
<td>187.00</td>
<td>28050.00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>q11</td>
<td>Official</td>
<td>150</td>
<td>101.70</td>
<td>15255.00</td>
</tr>
<tr>
<td></td>
<td>Citizen</td>
<td>150</td>
<td>199.30</td>
<td>29895.00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>q28</td>
<td>Official</td>
<td>150</td>
<td>158.10</td>
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</tr>
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<td></td>
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<td>150</td>
<td>142.90</td>
<td>21435.00</td>
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<td></td>
<td>Total</td>
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<tr>
<td>q32</td>
<td>Official</td>
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<td>140.71</td>
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<td>Citizen</td>
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<td>Total</td>
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<tr>
<td>Test Statistics²</td>
<td>q7</td>
<td>q8</td>
<td>q11</td>
<td>q28</td>
</tr>
<tr>
<td>-----------------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Mann-Whitney U</td>
<td>11020.000</td>
<td>5775.000</td>
<td>3930.000</td>
<td>10110.000</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>22345.000</td>
<td>17100.000</td>
<td>15255.000</td>
<td>21435.000</td>
</tr>
<tr>
<td>Z</td>
<td>-.343</td>
<td>-9.712</td>
<td>-10.613</td>
<td>-1.573</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.732</td>
<td>.000</td>
<td>.000</td>
<td>.116</td>
</tr>
</tbody>
</table>

**FINDINGS:**

The test so conducted had two independent variables i.e. the Officials and the Citizens, whereby, the results upon analysis depicted the following observations:

Through the test the mean rank of five (5) questions was carried out with the following observations:

- The mean rank of the responses is ordinal.
- As the p value (significance) is less than 0.05 then the data analyzed is significant.
- The two groups considered for analyses have different opinion for the given question.
- Null hypothesis
- In Questions 7, 8, 11 and 32 the mean values of the citizens is greater than that of the officials, thereby, signifying that the citizens are more dissatisfied than the officials.
- In Question 28 the mean value of the officials group is greater than that of the citizen group, signifying that the officials are more dissatisfied than the citizens.
A. FIGURE 4.2

- In the first bar chart, a proportion of the citizens and officials agree to the efficient availability of institutional capacities of the organizations involved in urban services.

B. FIGURE 4.3

- In the second bar chart, nearly all the officials and citizens agree to the adoption of planning methodologies undertaken by the organizations as per the guidelines of the local and state administration.
C.

**FIGURE 4.4**

- In the third bar graph, nearly all the officials and the citizens agree to the presence of a process of evaluation to review various facets of quality of life in the city.

D.

**FIGURE 4.5**

- In the bar chart above, the officials and the citizens have a mixed response to the patterns of urban growth only along the corridors of highway.
E.

FIGURE 4.6

- In the bar chart above, the officials agree to the conformation of national standards of the urban services.

- However, the citizens are not completely satisfied by the standards of the urban services available in the city.

STATUS OF THE HYPOTHESIS: Accepted

4.12 CONCLUDING OBSERVATION

The following concluding observations have been inferred on the basis of testing and analysis of data to validate the hypothesis.

ANALYSIS

As a country India has been experiencing urbanization like any other nation, globally yet the pace of urbanism has been relatively slow in comparison to other developing countries. As of 2010, 30 percent of India’s population is conservatively classified as ‘urban’, whereas, this tabulated to 45 percent in China, 54 percent in Indonesia, 787 percent in Mexico and 87 percent in Brazil.

Therefore, the structural transformation of the cities is characteristically linked with its optimum utilisation of resources and infrastructural potential; with India being no exception. With India’s share of current stage of development, the industry and
service sectors aka secondary and tertiary sectors are considered to be as the drivers of growth. This has a nexus with the growth of urbanisation as the blooming infrastructural capabilities viz. transport, urban services, telecommunications, etc when consigned in the Indian scenario will foster a scope of private sector involvement, thus, creating employment opportunities with an influx of labour force in various urban sectors. This will further cultivate migration as an important factor from rural to urban areas; thereby, creating an avenue of urban planning and growth.

However, this picturesque does not match the trends of urbanisation in India as there are means to match a certain populace in a given milieu but the rapid pace of urbanisation has a daunting effect on the utilisation of available and built resources. Similarly, the city of Ludhiana, a commercial and urban hub has been segregated into three distinct zones i.e.

- The Inner Zone comprises of two distinct parts based on the period of development, firstly, the old development and secondly the development which can be considered as an extension of the old development. It is characterized by old structures, mixed land uses, narrow streets and unplanned development.

- The Middle Zone is the area which is distinguished by the new development and comprises of the area between the inner zone and the existing urban limits of Ludhiana Metropolis. Development in this area has been undertaken by parastatal agencies including, Ludhiana Municipal Corporation, Ludhiana Improvement Trust, Punjab Urban Planning and Development Authority and the Punjab State Small Industrial & Export Corporation in the shape of TP Schemes, Development Schemes, Urban Estates & Industrial Focal Points. However, the area also has large component of unplanned and haphazard development and is marked by numerous land use and developmental problems. This zone is defined by the area outside the limits of Ludhiana Metropolis which is in the process of rapid transformation from rural to urban. The area has development which is largely unplanned and haphazard. This area also includes number of residential colonies approved by the State Government under the Punjab Apartment and Property Regulation Act, 1995 besides commercial buildings including multiplexes etc. The area has an array of diverse kinds of problems, namely, land use and developmental patterns, lack of open spaces, environmental degradation, etc.
An analysis of the above mentioned scenario depicts a very gloomy picture of development and planning in the city of Ludhiana, is a city with brimming economy and infrastructural opportunities, wherein, exists a lacuna in the demographic distribution of population and urban culture existing in the city. During the process data collection through primary and secondary sources it was studied that there are several factors such as lack of political and administrative will in the uniform channelization of resources, sluggish involvement of the ULBs in development and planning process, absence of active and vigilant citizen participation, large disparity in the economic demographic distribution, inadequate devolution of funds and magnifying urban poverty are a few bottlenecks witnessed in the city.

Moreover, there is an imperative need for the process of public policy to prepare our cities to distinguish between challenges and capacities of larger towns and their simultaneous identification in the smaller towns. As in the case of Ludhiana, a city which entails the process of globalisation, yet there exists a drastic utilisation of public and private land to match the pace of urban expansion; however, the city houses examples of urban poverty, wherein, the city slums house some non-poor populace because of extreme scarcity of housing for low income groups in the absence of rent control legislation. Such implications not only have environmental degradation but also adverse effect on the functionality of under provision of urban services. Thereby, in the ambit of various government schemes and initiatives in the small towns or the villages there is the requirement of creation of a spatial and functional linkage of rural and urban divide so that centres of urban agglomeration rather than congestion are created.