CHAPTER III: BANGALORE METROPOLITAN CENTER

3.0. Overview of the Chapter

This chapter discusses the Bangalore Metropolitan Center (BBMP area) physical setting and its dynamism, spatial growth and structure, population growth trends, decadal growth, age-sex pyramid & dependency ratio, population density, Bangalore Urban Agglomeration population growth trends its changes. Followed by present governance institutions with respect to elected urban local bodies, statutory authorities, central and state government departments, institutional framework, planning and service delivery functions and responsibilities, fragmentation, overlaps and conflicts and issues of governance.

3.1. Bangalore Metropolitan center physical setting and its dynamism

3.1.1. Physical Setting: Bangalore, located in the state of Karnataka in southern India, is the third most populous city in India, after Mumbai and New Delhi. It is having an area extent of 226 sq.km (2001 census) and lies between the 12°50’ 26’’ to 13°08’ 58’’ North Latitude and 77°27’54’’ to 77°46’44’’ East Longitude, almost equidistant from both eastern and western coast of the South Indian peninsula, and is situated at an altitude of 920 m above mean sea level. Bangalore city is bounded by Kolar District in the northeast, Tumkur District in the northwest, Mandya District in the southwest, Chamarajanagar District in the south and the neighboring state of Tamil Nadu in the southeast.

3.1.2. Topography: The topography of Bangalore is flat excluding a central ridge running from North, North-East (NNE) to South, South-East (SSE). The highest point measured is Doddabettahalli, which is 962 m (3,156 ft) and lies above this ridge. Bangalore is situated on a ridge which delineating four watersheds, viz. Hebbal, Koramangala, Challaghatta and Vrishabhavathi watersheds. Major rivers run through the area, is Arkavathi and South Pennar cross paths at the Nandi Hills, 60 km to the north. River Vrishabhavathi, a small tributary of Arkavathi, arises within the city at Basavanagudi which flows through the city. Both the rivers, Arkavathi and Vrishabhavathi carry most of Bangalore's sewage. The undulating terrain in the region has facilitated creation of a large number of tanks providing for
the traditional uses of irrigation, drinking, fishing and washing. Their creation is mainly attributed to the vision of Kempe Gowda and of the Wodeyar dynasty. This led to Bangalore having hundreds of such water bodies through the centuries. Even in early second half of 20th century, in 1961, the number of lakes and tanks in the city stood at 262. These, and open spaces generally, were seriously affected however with the enhanced demand for real estate and infrastructure consequent to urbanisation. Official figures for the current number of lakes and tanks vary from 117 to 81 but recent satellite imagery (dated 2003) gives a different picture altogether, showing only 33 lakes visible out of which only about 18 are clearly delineated.

3.1.3. Climate and Temperature: Bangalore is endowed by nature with a very salubrious and equable climate. The city enjoys a pleasant and balanced climate throughout the year due to its height and location. The highest temperature recorded is 39°C (102°F) and the lowest is 11°C (52°F). Summer temperature rarely exceed 38°C (100°F) whereas winter temperatures seldom drop below 12°C (54°F). August, September and October receives rainfall. Frequent thunderstorms moderate the summer heat. Most of the rainfall occurs during late afternoon, evening or night. The atmosphere is neither very humid not very dry.

3.1.4. Rainfall: The daily rainfall data for 12 years indicated that an average rainfall of 923 millimeters. The number of rainy days was 58 spread from April to November. A rainy day being defined as one where there is more than 2.50mm of rain. Historical precipitation data of 54 years reveal that, the major portion of rainfall being May-June and thunderstorms during September-October. The mean annual rainfall of Bangalore city is given in figure 1 & Appendix II –2.9.
Spatial growth and structure

From 1779 onwards the city of Bangalore came under the rule of the British who developed the Cantonment area. The Bangalore Municipality came into existence in 1862 and had jurisdictional control over the city area, but not the cantonment area. The first two decades of the 20th century witnessed the rapid and haphazard growth of the city. After the formation of the Bangalore City Improvement Trust in 1945, expansion of the city was planned. In 1956, Bangalore became the capital of the larger state of Mysore. Large-scale migration took place at this time, increasing the size of city. In 1976, the Bangalore Development Authority was formed. The Authority started on a large scale; it began integrated planning (Master Plan) for the city to respond to the exceptional rate of growth. From a small urban area of 28 km$^2$ in 1901 (CRRI, 1999), the city had expanded, in all directions and along its major roads, to an area of 565 km$^2$ by 2003 (BDA, 2007). This expansion was characterized by concentric ring-roads and five major and five minor radial roads which converged at the city center. Map 1 & 2 shows the spatial growth and urban expansion of Bangalore from 1971 to 2001.

Quite recently there have been serious attempts by sociologists and urban planners to characterize the city. Heitzman (2004) has analyzed the nature of growth that the city experienced with the emergence of the information society, while bringing out the
ingredients that led to the transformation of planning methodologies and spatial
planning tools for the city.

Nair (2005)\textsuperscript{39} has exemplified Bangalore as ‘the promise of the metropolis’ while
illustrating the urban fabric of Bangalore over the last century.
Map 1: Spatial Growth of Bangalore
Map 2: Urban Sprawl through the ages of Bangalore Urban Agglomeration from 1971 to 2001
The changing economic profile of the city over the last decade has deeply affected the structure of the city. The original concentric and uniformly growth of the city has now assumed a more sectoral and radial (linear) shape. This sectoral growth is concentrated more in the northeastern and southern parts of the city thanks to the concentration of high-technology industries in these areas. The result is differentiated and unbalanced development in the city. This has had implications for average distances traveled in the city, which have increased significantly.

The existing spatial structure of Bangalore can be classified into five major zones (Revised Master Plan 2015): A tiny village in the 12th century, it grew to become one of the fastest growing cities in the world by the 21st century and to figure among the million-plus cities in India. Bangalore has grown spatially more than 10 times since 1949 (Appendix II- 2.10).

3.3. Demographic Profile of Bangalore Metropolitan Center

3.3.1. Population Growth Trends: It is notable that since the first census, Bangalore is already the most populous city in Karnataka. This urban primacy has been retained consistently for more than a century now. The Bangalore City experienced rapid growth in the decade 1941-51; it is due to amalgamation of Bangalore Civil and Military Station with Bangalore City Corporation. By 1961 Bangalore became the sixth largest city in India. In between 1956 and 1960, large public sector undertakings such as Bharat Electronics Limited (BEL), Hindustan Aeronautics Limited (HAL) were established by the Government of India in Bangalore, along with National Defense Research Laboratories and the Indian Institute of Science. In the 1970s, the Indian Space Research Organization and Bharat Heavy Electronics Limited (BHEL) were also located here. Although the advent of IT is attributed to the late 1980s, major growth and expansion of this industry happened only during the late 1990s (figure 2 & Appendix II- 2.11).
3.3.2. Decadal Growth: The Bangalore city population had increased at much faster rate, during the decade 1941-1951, which made Bangalore one among the fastest-growing Indian metropolises. After Independence, Bangalore, now a State capital, saw an influx of population migrating to the city, although it should be noted that the steep population rise in the decade 1941–1951, while due in part to this migration, also reflects the amalgamation of Bangalore Civil and Military Station Municipality with then Bangalore City Corporation. The Population growth of Bangalore City from a town to a metropolis has been a result of five growth events:

- Shifting of the State Capital from Mysore;
- Establishment of the Cantonment;
- Setting up Public Sector Undertakings/Academic Institutions;
- Development of Textile Industry; and
• Development of Information Technology/ITES/Biotech based industries.

The average annual exponential growth rate of Bangalore City and Cantonment area population during 1951 was 6.50 per cent. This was the highest in the Bangalore city, subsequently, this high growth rate has been attributed to amalgamation of Bangalore Civil and Military Station Municipality with the then Bangalore City Corporation. During 1981, the average annual exponential growth rate was increased to 5 percent; it is due to increase influx population of establishments of IT & ITES industries. The speculations notwithstanding, the annual average exponential growth rate came down to 2.63 per cent in the 1991. It has gone down further to 2.67 per cent in the 2001; the provisional Census of India 2011 data reveals that it has increased to 6.69% it is mainly due to amalgamation of CMCs and TMC (figure 3 & Appendix II- 2.11).

Figure 3: Decadal and Annual Exponential Growth rate of Bangalore City and Cantonment Area 1871-2011

3.3.3. Age sex pyramid and dependency ratio: The age and sex wise demography profile of Bangalore City Corporation population of 2001 shows that in the age group of 20-24 male constitute about 6.10 percent & female constitute 5.42 percent. Whereas in the age group of 25-29 male constitute about 5.61 percent & female constitute about 5.35 percent.
respectively and remain age groups constantly decreasing. This profile shows a marked domination of the people in the age group of younger and it indicates that strong attraction of younger age group population for employment (figure 4 & Appendix II – 2.12).

**Figure 4: Age distribution by Sex, 2001 Bangalore City Corporation**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>00-04</td>
<td>3.99</td>
<td>3.77</td>
</tr>
<tr>
<td>05-09</td>
<td>4.45</td>
<td>4.29</td>
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<tr>
<td>10-14</td>
<td>4.82</td>
<td>4.63</td>
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<tr>
<td>15-19</td>
<td>5.09</td>
<td>4.79</td>
</tr>
<tr>
<td>20-24</td>
<td>6.10</td>
<td>5.42</td>
</tr>
<tr>
<td>25-29</td>
<td>5.61</td>
<td>5.35</td>
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<td>30-34</td>
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<td>35-39</td>
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<tr>
<td>40-44</td>
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<td>45-49</td>
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<td>55-59</td>
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<td>0.62</td>
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<tr>
<td>75-79</td>
<td>0.33</td>
<td>0.31</td>
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<tr>
<td>80+</td>
<td>0.34</td>
<td>0.38</td>
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<tr>
<td>Not Stated</td>
<td>0.07</td>
<td>0.06</td>
</tr>
</tbody>
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3.3.4. **Population Density**

The overall density of population in BBMP area is about 82.36 persons per hectare. The highest density is Padarayanapura ward is 1135.90 person/hectare and lowest density is Bellanduru ward is 7.68 person/hectare. The Padarayanapura ward is located adjacent to Jagajivanramnagar ward, the reason of high density of this ward is concentration of slum. The lowest density ward of Bellundur is covered by major portion of Bellundur Lake and its catchment areas (map 3 & details are given in Appendix –III).
Map 3: Ward wise Population density of BBMP
3.3.5 Population projection of BBMP

At present, Bangalore Metropolitan Center comprises the area of Bruhat Bangalore Mahanagara Palike (BBMP) which was formed in 2007. The formation of BBMP is a fairly new move and the actual population of BBMP over the years (including 2001) is not available at hand. BBMP population has a total of erstwhile BMP, 7 CMCs and 1 TMC covering a total area of 561 sq.km and a population of 5.68 million. This excludes 110 peripheral villages coming under BBMP jurisdiction and thus would not be able to give the actual growth rates for all of the newly added areas. On the other hand, Bangalore Metropolitan Area (BMA) covers an area of 1307 sq.km. and a population of 6.17 million. It is noted that although the area difference between the BMA and BBMP is more than 500 sq.km., in reality the population difference would not be much in all probability and it would be anywhere between 5.68 million to 6.17 million (table 1). This is due to presence of the Green Belt which is less inhibited and covers a large portion of the area which is outside BBMP and inside BMA. Thus, for the purpose of this analysis, 1991 and 2001 BBMP population is represented by BMA population. This might give a little higher population for BBMP in absolute numbers but would at least give a realistic growth rate for the newly added rural and urban areas within BBMP. The total area of the Corporation hence increased from the 226 sq km under BMP to nearly 800 sq km under BBMP. With the addition of these peripheral areas the number of wards increased from 100 to 198. Provisional Census of India, 2011 data reveals that BBMP has 84.74 lakh populations (box 4).
Table 1: Population rationalisation of BBMP

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<tbody>
<tr>
<td>BCC</td>
<td>226.2</td>
<td>3.30</td>
<td>4.30</td>
<td>2.69</td>
<td>30.39</td>
<td>1.80</td>
<td>19.52</td>
<td>5.14</td>
<td>0.78</td>
<td>8.08</td>
<td>5.35</td>
<td>5.56</td>
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<tr>
<td>Added area case -1</td>
<td>573.8</td>
<td>1.00</td>
<td>1.87</td>
<td>6.44</td>
<td>86.70</td>
<td>6.05</td>
<td>79.85</td>
<td>3.36</td>
<td>5.78</td>
<td>69.17</td>
<td>4.43</td>
<td>5.89</td>
</tr>
<tr>
<td>BBMP</td>
<td>800</td>
<td>4.30</td>
<td>6.17</td>
<td>3.68</td>
<td>43.49</td>
<td>3.26</td>
<td>37.78</td>
<td>8.50</td>
<td>2.83</td>
<td>32.21</td>
<td>9.77</td>
<td>11.24</td>
</tr>
</tbody>
</table>

Source: Census of India (1991, 2001 and Provisional Census of India results 2011)

*Population projection of 2021 and 2031 by the researcher using Exponential Growth rate method
Box 4: 84.74 Lakh and Counting in Bangalore

The city has truly become Bruhath Bengaluru. The estimated population for BBMP's 198 wards as per the 2011 census is 84.74 lakh, up from 45.92 lakh ten years ago. There are more men than women — 44 lakh and 40 lakh respectively. The estimate falls short of BBMP's 2010 projection of 94 lakh based on the growth rate. "Considering the rising congestion across the city, we expected the numbers to go beyond 1 crore but it’s about 15 lakh less. Therefore, Bangalore remains a B class city,” senior BBMP officials told. The big surprise is Horamavu-Bangalore (Ward 25), which has a population exceeding 90,000. This area, under the K R Puram-Bangalore assembly segment, had only 28,167 people in 2001. Ward delimitation in 2008 was based on the 2001 census keeping an average population of 25-30,000 per ward.

PROVISIONAL CENSUS 2011 ESTIMATES

<table>
<thead>
<tr>
<th>BANGALORE</th>
<th>BIRTH &amp; DEATH RATES</th>
</tr>
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<tbody>
<tr>
<td>Male: 44+ lakh</td>
<td>2007 onwards</td>
</tr>
<tr>
<td>Female: 40+ lakh</td>
<td>Avg. birth rate: 1.35 lakh/year</td>
</tr>
<tr>
<td>Others: 59+ lakh</td>
<td>Avg. death rate: 40,000/year</td>
</tr>
<tr>
<td>Total: 84.74 lakh</td>
<td>BEFORE 2007</td>
</tr>
<tr>
<td>Avg. birth rate: 55,000/year</td>
<td></td>
</tr>
<tr>
<td>Avg. death rate: one-third of birthrate</td>
<td></td>
</tr>
</tbody>
</table>

The census, held after 10 years, has seen an abnormal increase in population across many wards, particularly in newly added areas. The Marenahalli ward (near Vijayanagar) has the lowest, with about 21,000 people. This is just 1,000 more than the 2001 figure. In some old wards, the population has dipped dramatically. Sources said the biggest problem for census workers has been the migrating population and this has also forced revisions and resurveys in some areas over the past few months. Population growth no surprise, say experts. The estimated population for BBMP’s 198 wards as per the 2011 census is 84.74 lakhs, up from 45.92 lakhs ten years ago. But experts say this is no surprise if we take into account the 10-year period and the geographical expansion of the city. "The Bangalore urban agglomeration in 2001 had 56.86 lakh people. This was including the city corporation area, Bangalore North and South taluks and a portion of Anekal-Bangalore. The overall area covered was 531 sq km. Now in 2011, the numbers could go beyond 80-85 lakh for an area beyond 775 sq km, considering the newly added areas under BBMP," explained H Shashidhar, former director of Census operations, Karnataka.

His other reasons for population growth include influx due to education, health and employment sectors and the floating population for business reasons. "This is no surprise considering this is growth over the decade.", He said the greatest challenge in collating census data in a complex urban set-up like Bangalore is the probable errors under coverage and content. "Fortunately, Indian Census is among the best in the world with around 3% coverage error and 4% content error on an average. The main reason being that we are largely open, immobile and highly spatial. However, in most develop countries, the probable errors touch around 25%-30% as the societies there are highly mobile. Another major reason is that the enumeration in these countries happens over e-mails and post while in India, it is door-to-door,” Shashidhar observed. Trend Talk: Past two Decades Comparing census figures for Bangalore Urban agglomeration area 1991: 41.3 lakh, 2001: 56.86 lakh, 2011: 84.74 lakh.

Census 2001 & 2011: Comparison between 2001 and 2011 is incorrect as it’s not just the population numbers, but even the city's geographical limit has changed phenomenally in the last decade, said Samuel Paul, founder chairman, Public Affairs Centre. Elaborating on the population trends over the last two decades, he said the city hadn't grown so fast till 1981. "A lot of growth happened after 2005 when the BPOs came in. So the trend is likely to accelerate further," he explained.

Source: 23rd March, 2011, TOI
3.4. Bangalore Urban Agglomeration

3.4.1. Population Growth: Bangalore Urban Agglomeration (BUA) extends covering an area of around 500 sq km and population of 5.68 million as per 2001 census. The Bangalore Urban Agglomeration experienced rapid growth rate of 92.68 percent in the decade of 1941-51; the first reason is to establishment of large public sector undertakings such as Bharat Electronics Limited (BEL), Hindustan Aeronautics Limited (HAL), Bharat Heavy Electronics Limited (BHEL), Indian Space Research Organization, National Defense Research Laboratories and establishment of the Indian Institute of Science in 1970s and another reason is concept of ‘Urban Agglomeration’ was introduced in 1971 census enumeration, they have included urban outgrowth settlements within the urban agglomeration. The growth is came down to 41.44 percent in the 1991. It has further decreased to 37.77 percent in the 2001. The provisional Census of India, 2011 data reveals that, it has increased to 49.65 percent (figure 5 & Appendix II -2.13). As shown in the graph below, in the decade of 1991-01, the population growth rate of Bangalore Urban Agglomeration grew by 37.77 percent making it one of the fastest growing metropolises, second only to Delhi (52.63 percent). The recent data released by the provisional Census of India 2011, the decennial growth rate of Bangalore is highest (49.65%) and followed by Chennai (35.51%). Now Bangalore becomes the world’s fastest growing metropolitan city.
3.4.2. Composition of Population Growth: The composition of Bangalore Urban Agglomeration population is attributes about 22 percent through natural increase, 45 percent in-migration and 33 percent jurisdictional change during 1981-1991 and 1991-2001. An analysis of composition of population growth indicates that natural growth contributed about 22 percent while migration contributed 45 percent in the year 1991. About half of the population composition is from migration. About one third of the population increase in the Bangalore region is attributed to the fact that new areas were added to the Bangalore urban agglomeration. Adjusting this factor, the net increase in population during 1991-2001 was approximately 22% (Appendix II – 2.14).

3.5. Present Governance Institutions

To cater the needs of present trends and its diverse growth of population, the responsibility for provision of municipal services, city planning, and urban infrastructure services such as urban transport, electricity, and water and sanitation, rests with numerous
local governments and parastatal agencies. Present governance institutions in Bangalore Center (i.e. BBMP Area) can be categorized as.

3.5.1. Elected Urban Local Body (ULB):

- Bruhat Bangalore Mahanagara Palike (BBMP)- The BBMP, commonly referred to as “Corporation”, is the sole elected urban local body for Bangalore City. The city is divided into 198 wards and a Corporater is elected as a representative of each ward. The Corporater, headed by a Mayor, work with Corporation officers under the purview of the City Commissioner to ensure availability of municipal services to the citizens. In Jan 2007, the area under jurisdiction of the erstwhile BMP was expanded to include 7 City Municipal Councils and 103 villages around Bangalore. The newly constituted BBMP has an area of 800 sq km. The BBMP is responsible for storm water drainage, solid waste management, roads and infrastructural assets, running health services and corporation schools, licensing of trade etc. The BBMP is solely responsible for performing 18 functions enlisted in the Twelfth Schedule of 74th Constitutional Amendment Act, 1992.

3.5.2. Statutory Authorities:

- Bangalore Development Authority (BDA) - The BDA was formed in 1976 as the Local Planning Authority constituted under the provisions of the Bangalore Development Authority Act, 1976. The mandate of BDA is to control, monitor, and facilitate urban development in Bangalore Metropolitan Area to ensure sustainable and orderly growth. To achieve this objective, BDA prepares the Master Plan (MP) for the city, defines building norms, creates quality infrastructure, creates plotted development for urban extension, and facilitates integrated urban environment improvement.

- Bangalore Water Supply & Sewerage Board (BWSSB) - BWSSB was constituted under the Act of the Karnataka State Legislature in 1964. The organization provides drinking water to Bangalore and is also responsible for collection, treatment and disposal of sewerage from the city.
• Bangalore Metropolitan Transport Corporation (BMTC) - BMTC was incorporated in 1997 as a separate entity after being bifurcated from the Karnataka State Road Transport Corporation (KSRTC). It operates bus services inside the city and to about 400 villages within 25 kms radius of the city.

• Bangalore Metro Rail Corporation Limited (BMRCL) - BMRCL is the agency responsible for the construction and operation of Metro rail and Monorail services in Bangalore city. The first phase of the metro rail envisages a 33 km elevated and underground rail network with 32 stations to be completed by 2011. It will be complemented by the monorail operating on feeder routes.

• Bangalore Urban Art Commission- City aesthetics

• Lake Development Authority (LDA) - The Lake Development Authority (LDA) is an autonomous regulatory, planning and policy making body for protection, conservation and integrated development of lakes in Bangalore Metropolitan Region.

• Karnataka Slum Clearance Board (KSCB) - The KSCB was constituted in 1975 under the provisions of the Karnataka Slum Areas (Improvement and Clearance) Act 1973. The mandate of KSCB includes rehabilitation of all the declared slum areas in the Jurisdictions of all City Corporations, City municipalities, Town municipalities, and Town Panchayats in the State.

• Karnataka Urban Infrastructure Development and Finance Corporation (KUIDFC) - KUIDFC was set up in 1993 to assist the urban agencies in planning, financing, and providing expertise to develop urban infrastructure. It is the nodal agency for externally aided projects funded by ADB and the World Bank, and centrally sponsored schemes such as JNNURM.

• Bangalore Electricity Supply Company (BESCOM) - BESCOM was constituted in June 2002 following the unbundling of the transmission and distribution business of Karnataka Power Transmission Corporation Limited (KPTCL). It has the responsibility of distribution of electricity to 6 districts and operates in Bangalore Metropolitan Area, Bangalore Rural Area and Chitradurga Zones.

• Karnataka State Pollution Control Board - Activities relating to the prevention, control or abatement of pollution.
• Karnataka Industrial Area Development Board - Promote rapid and orderly development of industries in the state and acquire land & develop industrial estates under Karnataka Industrial Area Development Board Act;

3.5.3. **Central and State Government Departments:** In addition to the elected ULBs and statutory authorities, Central and state government departments perform a number of regulatory and development services. Key among them are:

- Bharath Sanchar Nigam Limited (BSNL) - Planning and operation of Telecom Network and Services
- Indian Railways - Rail transport
- Defence - Management of Defence land.
- Police Department - Management of Law and order, Traffic regulation.
- Public Works Department - Construction and maintenance of roads and certain buildings
- Revenue Department - Land acquisition, conversion of agriculture land to non-agricultural use.
- Town Planning Department - Technical assistance to the Government in formulation of policies and policy guidelines on matters related to urban and regional planning and preparation of Master Plans for urban and rural settlements etc.

Apart from that, we have civil societies, institutional innovations centers etc. The major institutional innovations are: the Bangalore Forward (Blr. For), which undertook several initiatives for improving Bangalore city and its management; the Bangalore Agenda Task Force (BATF), which contributed to an overall improvement of the city in a significant manner by acting as a decision making and accountability instrument; the Public Affairs Centre (PAC) has emerged both as a think tank body and an independent monitoring institution on behalf of citizenry; and Janaagraha emerged as an institution to voice community concern and recently, ABIDE.
3.6. Core functions and principal operation of BBMP

3.6.1. Bruhat Bangalore Mahanagara Palike BBMP

The BBMP (meaning Greater Bangalore City Corporation) is the Municipal Corporation which is responsible for the overall administration of the city of Bangalore. The BBMP was officially formed on 16th January, 2007 by merging the 100 wards of the erstwhile Bangalore Mahanagara Palike (BMP), along with seven City Municipal Councils (Rajarajeshwari, Dasarahalli, Bommanahalli, Krishnarajapuram, Mahadevapura, Byatarayanapura and Yelahanka), one Town Municipal Council (Kengeri) and 110 villages around Bangalore. The total area of the Corporation hence increased from 226 sq km under BMP to nearly 800 sq km under BBMP. With the addition of these periphery areas, the number of wards increased from 100 to 198 (table 2).

Table 2: Comparison of BMP and BBMP

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<th>BMP (BCC)</th>
<th>BBMP</th>
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<tr>
<td>Area</td>
<td>226 Sq. Kms</td>
<td>800 Sq. Kms</td>
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<tr>
<td>Population</td>
<td>4.3 Millions</td>
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<td>198</td>
</tr>
<tr>
<td>MLA Constituencies</td>
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<td>28</td>
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</tbody>
</table>

Source: Bruhat Bangalore Mahanagara Palike (BBMP)
3.6.2. *Existing Institutional framework of BBMP*

Bruhat Bangalore Mahanagara Palike presently comprises of 8 Zones within its jurisdiction. They are East zone, West zone, South zone, Bommanahalli zone, Yelahanka (Byatarayanapura) zone, Dasarahalli zone, Mahadevapura zone and Rajajeshwari Nagar zone. BBMP has followed decentralized administration at the Zonal levels (map 4). A Zonal office headed by the Zonal Additional/Joint Commissioner drawn from the State Administrative Services heads each of the 8 zones. Each of the Zone offices has the following departments and have their functions assigned to them within their jurisdiction: General Administration, Revenue Department, Engineering Department, Health Department, Advertisement, Horticulture Department, Welfare department and Education Department.
Map 4: Eight Zonal boundaries within jurisdiction of BBMP

Source: BBMP
Property tax administration is decentralized with the respective zonal heads responsible to achieve the annual target of tax collection. The erstwhile 3 BMP Zones have 10 Ranges and each Range office comprising about 3-4 ward offices. The 5 New zones have 5 Range offices and each Range has about 8-9 wards. At the Head Office the Commissioner is assisted by Heads of the Departments which correspond to the above 8 departments. Some other function like managing the BBMP property, town planning, finance, audit and resource mobilization are all centralized at the Head Office (flow chart 3, 4, 5 & 6).

The *Karnataka Municipal Corporation Act, 1976* which governs BBMP, the obligatory functions of a corporation, amongst others, include: cleaning of public roads and places, clearing of sewage and garbage and disposal, construction and maintenance of drains, construction and maintenance of roads and bridges, pavements and street lights, solid waste management, tree planting and so on. The executive powers of the Corporation are vested with the Commissioner who is a non-elected member appointed by the State government. The Mayor, who is elected by the Corporater among themselves, shall preside over every meeting of the Corporation and may give direction to the Commissioner with regard to the implementation of any resolution of the Corporation or Standing Committee.

For taking a suitable decision on a particular subject matter, the Commissioner shall present the matter before the Standing Committees, constituted with a set of Corporater of the Corporation. The eight **Standing Committees** of the Corporation are- Taxation and Finance, Public Health, Education and Social Justice, Accounts, Appeals, Town Planning, Public Works and Horticulture. There is also the requirement for the formation of ward committees in every one or more wards which shall be open to public participation. The functions to be discharged by the **Ward Committees include**: collection and removal of garbage and accumulated water, health immunisation, improvement of slums, maintenance of statistics, redressal of public grievances and monitoring the implementation of the decisions by the Corporation. The details of organization set up in central office A, B & C are given below.

BBMP has involved citizen participatory approach in the work undertaken at the ward level. The city has over 600 resident welfare associations. In order to foster citizen
participation in determining the priorities for Bangalore and to put the city’s developments on an over drive the Government in the year 2000 set up a Task Force called the Bangalore Agenda Task Force. This Task Force consisted of technocrats who were able to act as an interface between the citizens and the civic agencies. The object of the task force was not only to reach out to the demand side of the citizen’s concerns but from the supply side to provide the solution through the best practices anywhere in the country or world to reach out to the demand. The present Government has set up another group of people in the lines of BATF, Agenda for Bengaluru Infrastructure and Development (ABIDE) with the objective of giving the impetus to the city’s every growing infrastructure need.

**Elected Wing:** In view of the importance of the city, the Mayor who is first citizen of the city is a Political head. He presides over the meetings of the Corporation and generally exercises limited administrative control over the working of the Municipal Corporation. General Pattern in India is that the council elects the Mayor for a term of one year and he can be re-elected. Normally, the Mayors are ceremonial Heads without any executive authority. The Council consists of 270 members. This includes the 198 newly-elected Councillors, 28 MLAs, four Lok Sabha Members of Parliament (MP), 12 Rajya Sabha MPs, eight MLCs and 20 nominated members who are residents of the city. 20 members with a provision to nominate by the Chief Minister in due course. Only the 198 Councillors can vote in the elections to the standing committees. The elections will only be for the post of Member for each of these committees. The members in turn will choose a Chairman from among themselves. Each Standing Committee shall consist of seven Councillors. Their term of office is for a period of one year from the date of their election. No Councillors can be a member of more than one standing committee at the same time.

A Mayor and Deputy Mayor of the council are also elected for a period of one year, though not by popular vote. The post of the mayor and deputy mayor are filled through a quota system to a Scheduled Castes and Tribes candidate or to an Other Backward Class female candidate from among the elected Councillors.
Flow Chart 3: Organization set up of BBMP at Central office – A
Flow Chart 4: Organization set up of BBMP at Central office –B

Flow Chart 5: Organization set up of BBMP at Central office –C
3.7. Planning and Service delivery functions and responsibilities

3.7.1. Planning and Development Agencies

Though urban planning and development are essential functions of the municipal bodies as per the Constitution of India, in Bangalore various statutorily constituted Parastatals like Bangalore Development Authority (BDA) and Bangalore Metropolitan Region Development Authority (BMRDA) perform these functions. The BDA was constituted to control, monitor, and facilitate urban development of Bangalore Metropolitan Area which correlates to the BBMP area. The BDA, which formulates the Master Plan for the city, is also responsible for land use zoning, regulation and planning of land, providing sites, creating urban infrastructure and improving urban environment. Bangalore also has the Lake Development Authority (LDA) responsible for protection, conservation, reclamation, restoration, regeneration, and integrated development of lakes in the BMRDA jurisdiction. Another government body is the Karnataka Slum Clearance Board's (KSCB) whose functions include rehabilitation of all the declared slum areas in the Urban Local Bodies of the State. Karnataka Urban Infrastructure Development and Finance Corporation (KUIDFC), which is the nodal agency for externally aided projects, has been set up to assist the urban agencies in the state in planning, financing, and providing expertise to develop urban infrastructure.
3.7.2. Service Delivery Agencies

The various urban services like water supply, electricity and transport are also performed by parastatals like Bangalore Water Supply and Sewerage Board (BWSSB), Bangalore Electricity Supply Company (BESCOM) and Bangalore Metropolitan Transport Corporation (BMTC). BWSSB is responsible for pumping and distribution of Drinking water, sewage collection, water and waste water treatment and disposal. BESCOM is the agency responsible for power distribution in the city. BMTC bifurcated from KSRTC is the agency responsible for the bus-based public transport system of the city. For the larger Bangalore Metropolitan Region, the Bangalore Metropolitan Land Transport Authority (BMLTA) is responsible for the coordination of all land-transport matters. The latest parastatal that has come into existence is the Bangalore Metro Rail Corporation Limited (BMRCL) which would be responsible for the metro rail based public transport system.

In addition to the city corporation and the various Parastatals responsible for planning, development and service delivery functions, there are also the State Government Departments that perform service delivery and regulatory functions in Bangalore. The Bangalore City Police is responsible for the enforcement of overall law and order while one of their divisions, Bangalore Traffic Police is responsible for the manning of traffic islands and enforcement of traffic laws. The Regional Transport Office (RTO) is responsible for the collection of motor vehicle tax and the issuance of licenses to vehicles and drivers. Many other departments of the state government like Public Works Department (PWD) Revenue Department, Town Planning Department, Health Department, Education Department, Horticulture Department and so on and also play important roles in the administration of the city.

3.8. Fragmentation, Overlaps and Conflicts within the Bangalore Center

Theoretically, each authority is responsible for delivering of one or more services. In practice, however some functions may be overlapping or some services may require coordinated effort of one or more bodies.

3.8.1. Spatial Planning Function - Bangalore Development Authority as the planning authority is responsible for preparing the Master Plan or Comprehensive Development Plan (CDP) for the Bangalore Metropolitan Area while Bangalore
Metropolitan Regional Development Authority is responsible for preparing the Structure Plan for the entire Bangalore Metropolitan Region which includes the metropolitan area. Again, both have been assigned the role of coordination and are vested with powers to issue directions to other urban authorities in Bangalore.

3.8.2. Urban Land Management - There is considerable confusion in undertaking the operation of the numerous laws and regulation pertaining to land management in the metropolitan area, the Land Revenue Act, the Land reforms Act, the Karnataka Town & Country Planning Act, Karnataka Industrial Area Development Board Act and the BDA Act etc. Land acquisition is carried out by three authorities in the Bangalore Metropolitan Area – the Bangalore Development Authority for housing purpose, the Karnataka Industrial Area Development Board for industrial purpose and the Revenue department for other purposes including housing for the Housing Cooperative Societies. Although BDA is the Planning Authority and the agency for land development, acquisition of land by other agencies leads to uncoordinated development. A developer interested in putting up a housing project has to obtain the following approvals.

- Permission to purchase agriculture land under the Land Reforms Act from the Revenue department.
- Approval for conversion of agriculture land for non-agriculture use under the Land Revenue Act from the Deputy Commissioner.
- Permission for change of land use (where required) under the Town & Country Planning Act from the BDA.
- NOCs from concerned authorities.
- Approval for the layout / development plans from BDA.
- Approval for building plans from the Bruhat Bangalore Mahanagara Palike if the area comes under Corporation jurisdiction.

The zoning regulations are framed by the BDA and form part of the Comprehensive Development Plan or Master Plan while the Building Byelaws are framed by the Corporation or Municipality under the municipal laws. The regulations to control development are outdated and are in any case followed more in breach than in observance.
Requirements relating to land use, parking, FAR, setbacks are grossly violated and there is little effort to enforce them. The communication of Bangalore is proceeding at a fast pace benefiting the rich and the powerful and ignoring the interest of the poor and the low-living.

3.8.3. Slums – The slums in Bangalore come under the jurisdiction of three different authorities – the Karnataka Slum Clearance Board, the BBMP and the BDA. While the latter two organizations come under the administrative control of the urban development department at the State level, the Slum Board and the policy relating to slum improvement covers under the Housing Department.

3.8.4. Fringe Area Management - urban, urbanisable and the rural area are administered by different authorities like Corporations, Municipal Councils, Gram Panchayat’s, Town Panchayat’s, Zilla Panchayat’s, Revenue Department, Special Deputy Commissioner (Urban Land Ceiling) and the Planning Authority of Bangalore Development Authority. Several laws operate in this rural-urban continuum like the Land Revenue Act, Land Reforms Act, and Urban Land Ceiling Act etc. Enforcement & administered by these laws is done by different authorities resulting in confusion and hardship to the citizens.

3.8.5. Traffic Management - In the area of traffic management which leaves much to be desired, the responsibility of traffic controls rests with the Police Department but the funds for installation of traffic signals, lane marking etc., are provided by the BBMP or the Bangalore Development Authority. The responsibility for public road transport, maintenance of roads, and regulation of traffic and pollution control lies with different organizations and the overall management is marked by lack of coordination.

3.8.6. Infrastructure development - The Bangalore Development Authority (BDA) is the statutory authority that deals with provision of land for the purpose of housing and infrastructure. It acquires land and develops housing layouts but the provision of civic amenities such as water; sewerage and electricity get delayed due to lack of coordination with the respective agencies.

Road maintenance in the Metropolitan Area is the responsibility of five authorities – the BBMP in the corporation area, City Municipal Councils in their respective jurisdictions.
Bangalore Development Authority in the area covered by its layouts and Ring Roads, (before they are handed over to the BMP) the Public Works department the area surrounded by Vidhana Soudha and the National Highways. The condition of roads and footpaths in the city has attracted severe criticism, more so the slow pace of repair or improvement work. Ironically the BDA has been asked to carry out construction of flyovers in the BBMP area, and the BBMP told to improve roads coming under CMCs. But the completion of flyovers gets inordinately delayed.

3.8.7. Functions overlaps

<table>
<thead>
<tr>
<th>Parastatal</th>
<th>Functions</th>
<th>Functional Overlap</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDA</td>
<td>Responsible for land use zoning, regulation and planning of land, providing sites, creating urban infrastructure and improving urban environment</td>
<td>A function of BBMP under the Constitution which is also partly carried out by BMRDA and ABIDe</td>
</tr>
<tr>
<td>BMRDA</td>
<td>Responsible for planning, coordinating, and supervising the orderly development of land in the larger Bangalore Metropolitan Region</td>
<td>A Municipal Corporation function mainly carried by BDA in city limits</td>
</tr>
<tr>
<td>KUIDFC</td>
<td>Provides assistance for urban agencies in planning, financing, and providing expertise to develop urban infrastructure</td>
<td>A Municipal Corporation function; similar tasks also carried out by ABIDe</td>
</tr>
<tr>
<td>KSCB</td>
<td>Performs rehabilitation of all declared slum areas in the city</td>
<td>A Municipal Corporation function also performed by BDA and BBMP</td>
</tr>
<tr>
<td>BWSSB</td>
<td>Responsible for the pumping and distribution of drinking water, sewerage collection, water and waste water treatment and disposal</td>
<td>A Municipal Corporation function; some aspects like waste water disposal also carried out by BBMP</td>
</tr>
</tbody>
</table>
3.9. Issues in Governance arising out of multiplicity of civic agencies

The biggest issue regarding these bodies is that they do not have any locally elected representatives for consultations in their panel nor are they held accountable to the BBMP but are only answerable to the state government. Hence these bodies are not held accountable to the people of Bangalore. Moreover as per the 12th Schedule to the Constitution, many of the functions these bodies perform, like urban planning, regulation of land use, water supply, slum improvement are, are to be actually performed by the elected city government. On top of all these we also have ABIDe Task Force which, though not a statutory authority that can exercise functions, is a powerful force in city administration.

Bodies like BESCOM or BWSSB do not have any locally elected representatives for consultations in their panel nor are they held accountable to the BBMP but are only answerable to the state government. Hence these bodies are not held accountable to the people of Bangalore.

Multiple organs are responsible for similar tasks for examples BBMP, KSCB, and BDA all have responsibility for the improvement of slums; PWD build houses for Economically Weaker Sections (EWS), The BBMP, BDA and PWD are responsible for maintenance of different roads and different infrastructure projects.

However, the geographical extents which these bodies administer are different and the various sub-units of these bodies have also no geographical congruence. With each agency having a different jurisdiction there is difficulty in coordinating the different civic services.

What all this means that the urban citizen is not sure which civic agency is responsible for what? For effective governance there seems to be the need for redefining the jurisdictions and roles of these civic agencies. But until such reforms take place, it's imperative that the citizen understands the framework of each of the civic agency to deal with civic authorities in a better manner.
3.10. Summary

Bangalore Metropolitan Center (BBMP area) spatial and population growth trends has changed extremely over the years supported by analysis confirming that characteristics of city and its outgrowth. The Bangalore Metropolitan Center faces real challenges in terms of addressing delivery of basic infrastructure services to the citizens. In spite numerous initiatives and activities envisaged by the BBMP and other Parastatals, could not make coordinated effort in addressing the needs of the city, owing to institutional fragmentation, functions overlaps and conflict between key stakeholders etc. A key issue of Bangalore Metropolitan Centre is facing problem of spatial planning and service delivery for governing the city.