
Chapter: 2

URBANIZATION OF BANGALORE: A PROFILE

During the last few hundred years the city of Bangalore has transformed from a medieval, small, commercial town into a metropolis. An attempt has been made in this chapter to trace the growth of Bangalore since its inception and its transformation into a mega city.

Bangalore: Pre-Industrial Town and its Evolution

Bangalore was founded by Kempe Gowda-I after clearing a jungle. 'Thick jungle with a mass of wild weeds once grew luxuriantly at the place where now Bangalore stands...Kempe Gowda had the jungle cut down, for, he had conceived an idea to build his dream town there with a strong fortress and well laid streets studded with shops, chaultries, temples, etc.'¹ Bangalore was laid out in 1537 by Kempe Gowda-I whose ancestors were the Yelahanka Nadu Prabhus, with permission from the emperor of Vijayanagar. He constructed a mud fort which had four entry points/gates signifying the cardinal directions of north, east, west and south - 'Yelahanka gate', 'Halsoor gate', 'Kengeri gate' and 'Anekal gate'- respectively. The layout inside the fort was mainly meant for commerce, divided into various 'petes' (markets)- Nagarath Pete, Ballapurada Pete, Taragu Pete, Bale Pete, Chikka Pete and so on- each specialized in different commodities. The fort was encircled by a deep ditch and a hedge.²

Within this township, the built space consisted of a 'stock of temples, tanks and agraharams'³. Kempambudhi Tank, Dharmambudhi Tank, Halsoor Tank, Karanjeer Tank, Sampangi Tank, Kempapura agrahara Tank etc., were some of the tanks built by the later rulers. Gavi Gangadhareswara temple at Gavipur, Basava temple at Basavanagudi, Someswara temple at Halsoor etc., were some of the temples built by them.⁴

Though it was just a small principality centered on the fort town, it was on the thoroughfare that most of conquerors had to pass through to reach places in the south.⁵ There had been attempts by the rulers to control this region because of its strategic importance until it was bought by the Mysore Kingdom.

Bangalore was then surrounded by forests, agricultural fields, tanks and was dotted with temples. The town saw a second expansion in 1690 when it was bought from the Moghals by Chikka Devarajor Wodeya who ‘immediately after its acquisition fortified Bangalore with yet...another fort, oval in shape, which he built to the south of the old Kempe Gowda fort... The main object of building the second fort was to ensure the security of the principal town situated within the first fort.’⁶ In 1759 Bangalore region was handed over to Haider Ali Khan as a personal ‘jahgir’ by the Mysore ruler. Considering the strategic importance of Bangalore in the context of rising British power, the southern fort was expanded and strengthened by building it in stone.

With a new regime in place, Bangalore again became the centre of struggle between conflicting forces. The regime of Haider Ali and Tippu Sultan came to an end with the Fourth Anglo-Mysore war in 1799.⁷ Around 1800, the fort town was a place of armament manufacturing and a commercial centre. The town of Bangalore in the 18th century was:

[A] major manufacturing and trading centre. To the north of the fort was the “Pete” where specific areas were devoted to the buying and selling of each dominant article of trade... i.e. cotton products in Aralepet, rice in Akkipet. Since the trade in a specific commodity was generally restricted to a particular caste, the areas were sometime named after the castes of the traders as in the case of Nagarhpet (Cloth agents-Nagarits).⁸

Agricultural products were available in abundance in the city and ‘gardens afforded a variety of vegetables and roots, and the markets abounded with many of the necessities of life.’⁹

Bangalore’s importance as a commercial centre was not confined to the needs of the surrounding region; it was connected to wider regions and beyond the boundaries of Mysore. It catered to the court at Srirangapatna and also regions as far away as Bidanur, Chitradurga, Gubbi, etc. Demand for its products came even from the distant markets of the Middle East.¹⁰

By the end of 18th century, new developments had transformed the region as never before. Bangalore had become a vast military camp, intensely active, with a mass of fighting forces - 45,000 cavalry, 30,000 infantry, 10,000 Poleegar foot and 100 guns of great size, imported from France. Besides these fighting forces were a vast number of camp followers, whose duty was to collect forage and grain.¹¹

Emerging Modern Town

The confinement of the town to the fortified area was transformed after the British East India Company decided to set up its military establishment on Civil and Military Station at Bangalore in 1807. Bangalore was part of the territory restored to the Wodeyar dynasty under the political authority of the British. What followed within this broader context was the reconfiguration of the old Bangalore town and the new developments within the expanding Civil and Military Station. For environmental and strategic reasons, the British shifted their troops which were garrisoned at Seringapatnam to Bangalore which was ‘salubrious’¹² with ‘healthier’¹³ climate for the troops. Land near Ulsoor village was acquired for the British troops to be stationed and a new social area came into being. In 1807 a layout was prepared for British Regiments and barracks and other military buildings.¹⁴

The first major physical expansion of Bangalore happened in the early nineteenth century. British developed Military-Administrative District for the settlement of army personnel and its officers. This happened within the context of the colonial establishment/arrangement in agreement with the Mysore Princely State. The expanded space was worked out as an independent unit, though it was, in some ways connected to the Bangalore Town by its sheer physical proximity. This implanted town-state, in the course of time expanded and was termed the Civil and Military Station. This was the first large-scale expansion in nearly three centuries.¹⁵

People of the military area had their own needs of labor, goods, services, and so on. Thus, provision was made for settling the people who could feed and serve all the needs of the new area. People who were enterprising migrated to find jobs, set up retail trading in various goods, services, etc. A new segregated layout in the vicinity, settled

the population of labor in the 'Civil Station'. 'Civil and Military Station' was later known as the 'Cantonment area'.¹⁶

Bangalore town became a bi-nucleated town with two different administrations¹⁷ for 'City' and 'Civil and Military Station' in the nineteenth century. Civil and Military Station area developed into a heterogeneous area with migrant populations belonging to different ethnic and religious communities on the one hand and the British population. On the other, the British maintained 'a vast social distance'¹⁸ from all others. Moreover, the differences could also be found in the residential formation. Civil and Military Station area consisted of three areas - the 'civil area' that stood in contrast to the more spacious layout with bungalows constructed for British administrative personnel. The native settlement was known as 'Blackpally'. Blackpally was inhabited by wide range of service providers who were from all over south India- Urdu-speaking Muslims and Tamil speaking population. 'General Bazaar'- a commercial and retail area too developed along with the residential formations.¹⁹

After the assumption of direct British rule in 1831, Bangalore came under the administration of the Commissioner. New elements were added to the landscape of the town. Relocation of administrative offices to Bangalore was one of the major elements which came to occupy the townscape. All administrative offices were at first housed at Tippu Sultan's palace in Bangalore and the first general hospital was built in 1835. Bangalore was soon connected to many other places with the first telegraph line in 1854. The first railway service was introduced in 1864 which connected Civil and Military Station to Jolarpet. In 1842, English school education was introduced for the first time for the natives of Bangalore. Kannada was introduced as the official language of the state and English was a parallel language. Central College was started in 1858. Rupee replaced the old currency 'Kantheeraya Pagoda' and in 1864 British currency was introduced. Bangalore Central Jail was constructed in 1864. In 1864 Bangalore Municipality was setup and Cubbon Park covering 120 acres was formed. In 1864-65 'New Public Offices' were built creating more space for the offices for the expanded bureaucracy that housed Revenue and Education departments. A museum was set up near the Central Jail in 1865. In 1866, as a part of the reform process, the Police Department was launched. Named after one of the Commissioners' of Bangalore,

Bowring Hospital was opened in 1866. In the same year 'Attara Kacheri' was constructed and the Secretariat was shifted from the congested at Tippu's palace. Bangalore's Golf Club was opened in 1870. In 1877, owing to the famine, the administration had to take up public works to provide employment to the people. In that connection, the Bangalore-Mysore railway work was started. In 1877, Bangalore Woollen Factory, the first large scale production unit, was setup. Various district offices were built in 1877.²⁰

The whole townscape was thoroughly reorganized and expanded during the Commissioner's period from 1831-1881. Public spaces were reordered during the commissioners' regime. Few of the large remnants of the previous era were razed to the ground. The moat and fort were razed in the 1860s and replaced by a compound wall which 'gradually disappeared under later buildings. The thorny hedge and ditch that surrounded the walls similarly disappeared.'²¹

The contingencies of expanding town and the famine during 1875-77 precipitated the water scarcity. The existing tanks were expanded which were still supplying water for gardens and drinking purposes. A combination of three tanks known as 'Miller's tank was constructed which supplied water to the Civil and Military Station area. During 1875-1882 improvements were taken up on a natural lake which was on the north-western part of the town. This lake eventually was converted into a reservoir which came to be known as 'Sankey Tank'. By 1896 Hesarghatta Reservoir or the Chamarajendra Reservoir was built on Arkavati River. This was the first time water supply was pumped to the town from the reservoir which was 13 miles away. Both Civil Station Area and the City benefitted with increased water supplies.²² Another significant aspect of the changes was the appearance of the new spaces like Parade Grounds and Cubbon Park. These spaces were created on the lands stretched between the City area and Civil and Military Station. This was in addition to the formal green space- Lalbagh.

By the end of the Commissioners' regime, Bangalore was an established bi-nuclear town. Civil and Military Station was a new kind of a layout formation of the expanded town; it had become a full fledged town with diverse built structures like churches, temples, mosques, educational institutions, shops, bars, taverns, public

houses, grounds, parks, houses for the sepoy of native regiments, barracks for British infantry men, artillery and cavalry barracks, military hospital, railway station, etc. The important point is that the rationale underlying the spatial organization of the emerging new military town reflected the expansion of the then existing town and introduction of an alternative core.²³ On the one hand, the new town was a militarized space to control the whole region of Princely Mysore, with a spatial form which had a great number of vacant lands put to various uses, apart from the built up area. On the other, a new 'aesthetics in- architecture, creation of parks, spacious bungalows etc., was inscribed in the new core. Bangalore became the administrative/power centre of the Princely Mysore State. This kind of urbanization process is also indicative of regimented land use and development. The new urban socio-spatial organization of the emerging city displayed 'the fort-settlement and market-tank model'²⁴, 'English parks and gardens model'²⁵ and the militarized space.

From the point of the view of urbanization changes were both spatial and demographic. The making of Bangalore town into a bi-nuclear town, coupled by its spatial and demographic growth was unprecedented. Each nucleus developed its own market, railway station, centre for economic activities etc. The British created an autonomous territory within the broader political regime of Princely Mysore. The native fort town too saw spatial reorganization and ordering. With the removal of the fort the town was unshackled for expansion.

Governmental interventions were becoming more and more systematic and rationalized in managing the town within the context of exigencies arising out of health and demographic crisis. Creation of Municipal Board in 1862 in accordance with the Municipal Act XXVI of 1850²⁶ was a case in point. Two parallel Municipal Boards were constituted for the native town and Civil and Military Station. The Municipal Act provided for 'making better provisions for repairing, cleaning, lighting and for prevention of nuisances or for improving the town in any manner'.²⁷ Municipality was to be formed with the consent of the considerable number of citizens.²⁸ The Bangalore Municipal Regulation of 1871 for the first time conceived both the town spaces as divisions. The native town and civil and military station were divided into three and six divisions respectively. The logic of dividing the space was to enable the activities of the respective boards to function efficiently and effectively in the given divisions. The

manifest functions of the municipal boards were 'to make better provisions for police, conservancy and improvement of the respective local areas'²⁹. The latent function of new regulations was the creation of a city of 'legal entity'³⁰.

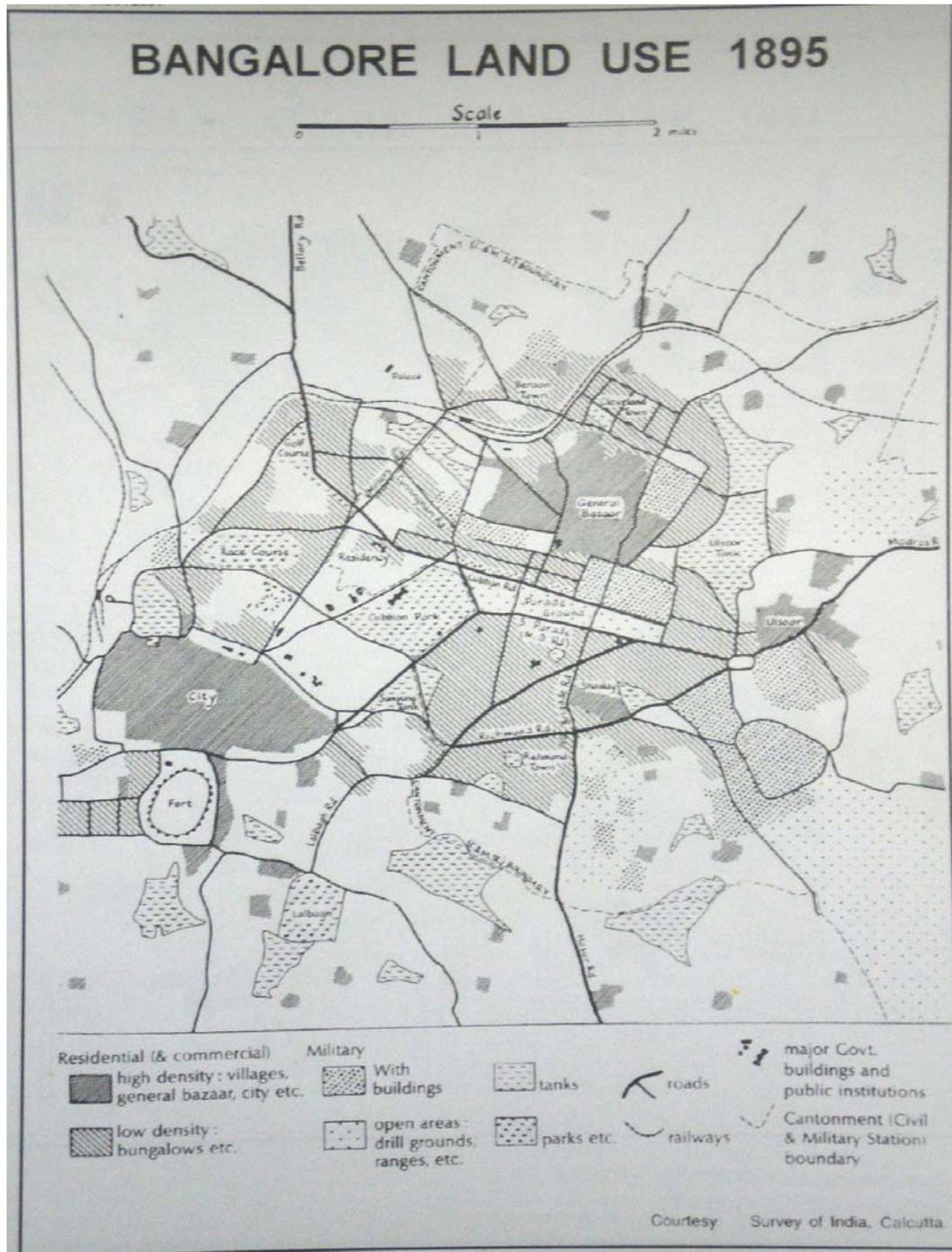
Around this time, native town had 665 acres of built-up area and Civil and Military Station area was expanded by acquiring 15 villages into its fold.³¹ Among other things in 'the census taken in 1871 counted 79,000 in the Civil and Military Station and 53,000 in the city, a total of 132,000 out of a state population of 5,050,000, or 2.6 per cent...Bangalore remained, however, a mostly non-built environment, and retained a reputation as a gardener's city where horticultural plots (*tota*) filled with vegetables and groves alternated with open fields, virgin forests, the manicured arboretum of Lal Bagh, and the well-tended compounds of bungalows. In 1889, the built-up area of the city was about 3.9 square miles, the remainder being parks and open spaces.'³²

With the rendition in 1881, or the restoration of power to the Wodeyar monarchy, Bangalore town was again divided between two regimes- native town and the Civil and Military Station. The former was administered by the Mysore ruler as a part of larger state and the latter formed the British India's subsidiary administrative entity. In the last decade of the 19th century Bangalore experienced unprecedented challenges from the plague epidemic. The town was swept by the disease. New models of town planning were developed for the city and Civil and Military Station areas. One of many interventions in the last decade of the 19th century was the physical expansion of the town. Extensions were newly created, and the consequence of extension formation was the concentration of population on a massive scale in an area, though development of the place was gradual. This kind of residential formation happened for the first time contiguous to the native town area. The idea of settling people and creating spaces for non-agricultural purposes was itself new. These areas were divided into sites which were allocated to the people working for the Mysore bureaucracy and to others who could afford to buy the sites. Chamarajpet and Seshadripuram were the first of these extensions. Chamarajpet extension developed spontaneously towards the end of the century. Trading in various goods was the main activity in this area with the residential space for the businessmen forming another neighbourhood³³.

Basavanagudi and Malleswaram³⁴ extensions were planned in 1894 and 1895 respectively, and were ready by 1898, the former covering 440 acres and the latter 281 acres. These extensions were conceived as social areas which would segregate people by their caste and class, though the physical layout adhered to principles of planning. The plan provided spaces for roads, public places, bazaar, temples, etc., 'The new extensions were laid out on the grid-iron or chess-board plan, with narrow lanes at the back of the houses. The sewerage of the whole City area was improved by a combined system of open drains and underground sewers.'³⁵ The space created for residential purposes in the form of sites was interesting since the land was for the first time being introduced in the market as a commodity. Land or the site in extension was to acquire a new meaning in the urban setting.

Actually, earliest extensions first came into being in the expanding Civil and Military Station area than in the native town area. In 1883, areas named as Benson Town, Cleveland Town and Richmond Town were completed. By 1884 Binny Mills-became a part of the town.³⁶

Map of 1895- Bangalore's Land Use



Source: Census of India 2001, p. 41

If one were to look at the 1895 map, Bangalore area's land use was broadly classified as – Residential and Commercial; Military lands with buildings and open areas – comprising of drill grounds, ranges, etc.; tanks and parks; roads and railways; and major government buildings and public institutions. The town was a military and administrative town; spaces were just designed to meet the requirements of military and administration. But the elements of the town layout by and large remained scattered except at two densely packed cores, just leaving vast stretches of lands as green cover, lakes, villages scattered around in the vicinity of the town, with a network of roads running across and a railway line bordering both cores- one running in the direction of east and the another in south-western direction, connecting the City and Civil and Military Station and other places. Given the vast stretches of empty space, there was greater scope for the alteration/conversion and allocation- of spaces for various purposes and uses. And of course, at that time, the vast agricultural lands and villages surrounding the town were not a hindrance to the expansion of the town.³⁷

The new experiments with land use planning continued. At the turn of the 20th century Bangalore had seven extensions in Civil and Military Station area and native town. Town expansion was by and large fashioned by forming extensions throughout the first half of the 20th century. The Table 2.1 shows the decade-wise formations of extensions and layouts.

Table 2.1
Decade-wise Formation of Extensions/Layouts

Decade	Year	Name of the Extension/Layout
1880s	1883	<i>Benson Town</i>
	"	<i>Cleveland Town</i>
	"	<i>Richmond Town</i>
	1884	Binny Mills
1890s	1892	Chamarajpet
	"	Seshadripuram
	1898	Basavangudi
	"	Malleswaram
1900s	1906	<i>Fraser Town</i>
	1908	Sankarapura
1910s	1911	Indian Institute of Science
	1915	Gavipuram
	1916	Srirampuram
	1918	Visveswarapuram
	1919	Minerva Mills
Table	1922-23	<i>Austin Town</i>
	"	<i>Cox Town</i>
	"	<i>Tasker Town</i>
	1923	Guttahalli

2.1 contd. 1920s	1927	Kalasispalyam
	late 1920s	<i>Cooke Town</i>
	"	<i>Richards town</i>
1930s	1930	Gandhinagar
	1934	Government Electric Factory
	1938	Kumara Park
	"	Narasimha Colony
1940s	1944	HAL Sanitary Board
	"	HAL Township
	1947	Wilson Garden Extension
	1948	Jayanagar
	"	Sunkenahalli Extension
	"	Vyalikaval Extension
	"	ITI Notified Area
	1949	Jayamahall Extension-villas
"	Rajajinagar	

Source: BDC 1954; ODP 1963; Rao & Tiwari 1970; Hietzman 2004 (Italicized entries in table 1 are Civil and Military Station areas)

From table 2.1, one could infer that there was steady increase in the number of extensions in Bangalore. This period witnessed the establishment of Indian Institute of Science, Minerva Mills, Government Electric Factory, Hindustan Aeronautics Limited. The 1920s saw a greater number of new extensions added to the twin cities. By the 1940s new public sector industries and their concomitant residential extensions occupied more space.

By this time, the native town had overtaken the Civil and Military Station area. The Civil and Military Station area continued to be a residential and military area, though it was expanding, whereas the city developed very different heterogeneous and new kinds of land uses giving way to industry and its townships and other institutions. The number of residential extensions were far greater in the city (18), compared to the Civil and Military Station Area (7).

Table 2 shows the magnitude of residential land uses in various extensions though the data is available only for the Bangalore city area.

Table 2.2
Magnitude of Land Developed for the New Residential Extensions from 1892 to 1951 in the Native Town Area

Year	Name of Extension/Layout	No. of Acres	No. of Sites	Avg. Size of the Site (in Acres)
1892	Chamarajpet	280	1,368	0.204
	Seshadripuram	26	198	0.131
1898	Basavanagudi	703	1,862	0.377

	Table 2.2 contd Malleswaram	304	620	0.490
1908	Shankarapuram	154	150	1.026
1915	Gavipuram- Srirampuram	100	500	0.200
1918	Visveswarapuram	93	467	0.199
1923	Gavipur-Guttahalli	...	700	...
1925	Yenkatarangapuram			
1927	Kalasipalyam			
1930	Gandhinagar			
1931- 41	Bull Temple Road	...	221	...
	Malleswaram Link Road
	Subedar Chatram Road	23 ¼	143	0.162
	Wilson Gardens	...	479	...
	Narasimharaja Colony
	Kumara Park East
1941- 51	Kumara Park West	48	270	0.177
	Vyalikaval	77	780	0.098
	Sukenahalli	14	262	0.053
	Jayamahall	41	129	0.317
	Jayanagar	1,262	5,754	0.219
	Industrial Suburb (Housing area)	363	3,210	0.113

Source: Report of the Bangalore Development Committee: 22-23

The extensions were not uniform in size. Broadly extensions may be classified as large, relatively large, medium, small, and relatively small.³⁸ The large extensions were 1,262 acres and relatively small were 14 acres in size. Relatively large extension measured 703 acres; medium sized extensions ranged between 280 to 363 acres; small extensions ranged between 77 and 154 acres; and the relatively small extensions measured between 14 to 48 acres. What is interesting here is the availability of number of sites in each extension. The picture is different when one analyzes the availability of number of sites in proportion to extension size. What is significant is the number of sites and the average measure of each site that each extension.

- The size of an average site- in the large extension (Jayanagar) was 0.219 acres.
- The relatively large extension- Basavanagudi, - had an average site size of 0.377 acres.
- The size of average site in Malleswaram extension- a medium sized extension- was 0.490 acre. In other medium sized extensions average site measured (Chamarajpet and Industrial Suburb) is 0.204 and 0.113 acres respectively.

- The average size of site in the small extension- such as Vyalikaval, Visweswarapuram, Gavipuram-Srirampuram, and Shankarapuram were 0.098, 0.199, 0.200, and 1.026 acres respectively.
- In the relatively small extensions such as Sukenahalli, Subedar Chatram Road, Seshadripuram, Jayamahar, and Kumara Park West, the site's size was 0.053, 0.162, 0.131, 0.317, and 0.177 acres respectively.

Sites formed in the extensions were unequal in size and were formed for different classes of people and within each extension too there were differences in the size of the sites for different classes. More the number of sites in an extension, greater the units of space created to accommodate the population. The expansion of the city generated extensions and in the process 26 villages were absorbed into the urban area. This kind of expansion became the characteristic feature of urbanization of Bangalore during the first half of the 20th century.

During this period, Civil and Military Station area too was expanding. In response to congestion, the government took steps in this direction by creating extensions to decongest the town. 50.35 acres of village land of Papureddypalyam was acquired for this purpose. This extension was later named as Fraser Town and 470 sites were carved out in this extension. Municipal Commission which was appointed for the job retained 64 sites to build rat-proof houses for the poorer classes. Places known as Knoxpet and Austin Town were created basically for double storied housing estates for the poor Europeans and Anglo-Indians. The Commission continued to acquire lands for few more extensions- Richards Town, Cox Town, and Tasker Town. Forty eight acres of land north of Frazer Town were acquired for creating the extension known as Richards Town. In 1922-23, the old military lines, known as Cubbon Lines, were acquired. The area measured about 66 acres. The Municipal Commission was expanding the town with the double-edged strategy of providing relief to the town dwellers from congestion and making provision for residential sites for the middle-class. Town dwellers who directly benefited from the housing programme initiated by the commission were the scavengers, sweepers, and other poorer classes. The middle class was sold sites whereas poorer classes were provided with rental housing. Efforts were also made to reserve sites for "better class" houses. A diagonal road 60' wide was

constructed from the junction of Chandi Chowk Road to Cunningham Road and the triangular plot of land of about 2 acres was left for the Gosha Hospital building and the land north of this road was reserved for *better class* houses. This place was later known as Tasker Town. The land measuring 10 acres to the east of Blackpally Road was reserved for a large covered Market.³⁹ This kind of spatial expansion became the characteristic feature of urbanization of Bangalore during the first half of the 20th century.

Industrialization and the Socio-Spatial Formation

By the end of the 19th century industrial units in Bangalore began to appear. “The C&M Station [Civil and Military Station] remained more or less a military encampment, though boasting of a large tobacco factory, breweries and several tanneries; most industrial growth took place in the city area, where the silk industry also enjoyed a precarious existence.”⁴⁰ Bangalore Cotton, Woolen and Silk Mills and the Maharaja Mills⁴¹ were the first large scale established industrial units, in the native town. Industrial scene of Bangalore remained static due to lack of investments till 1920s and Government of India’s policy of promotion of only tobacco industry ignoring others.⁴² Industrial landscape of Bangalore became active between the two Wars, which gave fillip by creating demand for certain products. The planning of science and technology institutions in the native town area got impetus from the statesman Viswesvaraiiah. State-run or joint stock companies, especially in the 1930s and 40s marked the industrialisation pattern of the city. Hietzman speaks about large scale state run industries and some private firms which sprang up during that time.⁴³ The story of Hindustan Aircraft Pvt. Ltd. (HAL) which began in 1940 is important in the history of the city.⁴⁴ Following the success of HAL, many other industries sprang up. For instance, in 1942, the government of Mysore established Radio and Electrical Manufacturing Company, and in 1945, Mysore Electrical Industries was established. Thus, the spatial distribution of the city changed with the establishment of a wide range of technical and service industries on the outskirts of the city.

Janaki Nair tells about the Mysore government’s policy of ‘encouraging industrial development through the grant of substantial concessions’.⁴⁵ Heitzman also

points out the important role played by the state government in ‘encouraging industrial growth by passing legislation that regulated working conditions and cooperating with management in the suppression of sometimes militant labour actions’.⁴⁶ Again, Nair says that after the 1920s, Bangalore witnessed a limited expansion of medium and small-scale textile units.⁴⁷ The state run textile industry had to struggle against “overwhelming odds before achieving a modicum of stability” before this period.⁴⁸

The Second World War gave a major impetus to industries “when a large number of units were commandeered for war production.”⁴⁹ During the period of both the Wars, “there were no imports from foreign countries and the nation had to depend entirely on home made goods.”⁵⁰ The employment in textile mills went up by 70 per cent between 1939 and 1944. There was a 66 per cent increase in employment in ceramics-related industries. The number of employees doubled in the tobacco industry.⁵¹ HAL touched its height of production employing 12,000 people in 1942.⁵² The textile industry also experienced marked changes during both the wars. While handlooms seem to have suffered, the power looms and the parachute silk industry during the Second World War prospered. They employed around 2,000 workers; many of them were women on low wages⁵³.

The workers of factories, mills, and presses lived with construction workers, casual laborers, petty retailers and traditional weavers. Their residences were located in the ‘narrow lanes and by-lanes of the old city, Arlepet (Cottonpet), Taragupet, Kurubarpet, Nagarthpet, Cubbonpet, etc. where generations of cotton and silk weavers had lived and worked, or on sites on the western edge of the city where most of the large establishments were located, the new factory workers lived in small tenements, houses or huts.’⁵⁴

The environment of overcrowding had its consequences in the form of epidemic diseases which held a sway over the population. The plague of 1898, affected various sections of the labour of both industrial and other occupations. And, due to this epidemic, population of the city was reduced to a great extent. ‘The plague, which first made its appearance among the coolies of the Southern Mahratta Railway Company of Gowdanpet (a part of Cottonpet), quickly spread through the rest of the crowded old city area, and even to other parts.’⁵⁵ Various social groups deserted the city.

Apart from the large numbers who succumbed to the disease, greatly diminishing the city's population, the situation was considerably worsened by the desertion of key groups of workers from the city, resentful of the constant surveillance of plague authorities and the dangers of their tasks. Thus a few deaths among 'scavengers', in September 1898, caused the whole gang to decamp, forcing municipal authorities to hire others at considerable cost. Similarly, seven out of eight manure contractors also 'struck work', as did a large number of millhands who simply left the city 'fearing more the systems of segregation than the plague itself'.⁵⁶

City space had to be reconfigured and expanded, which is dealt with in this chapter. Here, it is sufficient to say that such an expansion of the city had only benefited the middle class leaving the marginal social groups in the congested areas, which were not totally plague free.⁵⁷

Between 1910-1930, the areas namely Akkipet, Ranasingapet, Kurubarpet and Arlepet, were overcrowded and in an area of 0.09 sq. mile, the population was 8, 487. The areas in the south-western part of the city "where fine mansions were located on spacious grounds" stood in sharp contrast to the areas mentioned previously. "In the old city area of 3 sq. miles lived 94, 256 people, or 55 percent of the population, whereas the extensions, totalling 9 sq. miles, had 78,101 people, or 45 per cent of the population, in the early 1930s."⁵⁸

In the Civil and Military Station areas like Murphy Town, Sweeper's Lines, Ookadapalya, the railway and tobacco factory quarters, etc., which were considered crowded areas "were in no way comparable to the abysmal conditions in the city"⁵⁹. Though the municipality had recognized the need for providing houses or sites, it was impossible to allot land considering the high price of the land and the caste distinctions.⁶⁰ Residential land use was determined by caste and class which were in congruence with each other.

The question of building houses for the poor had engaged the municipality as early as 1919. When it was finally acknowledged that prices of sites in the new extensions were prohibitive for labourers, a proposal was made to allot some sites in each community block for the poor. The primary community blocks were for Brahmins, other Hindus (upper caste, vegetarian), other Hindus (non-vegetarian), and Muslims and Christians. The idea was abandoned since it implied too many 'practical difficulties'. Since most of the labouring poor were also lower caste and untouchable, we may well imagine what some of the difficulties may have been. The Brahmins had as early as 1902 raised consistent and vociferous opposition to the grant of building sites to Holeyas (untouchables) of the Queen's Sappers and Miners, and had succeeded in urging the government to allot new sites well away from Brahmin neighbourhoods. Compulsorily housing the poor in new extensions was completely out of the question since 'such a step would reduce [the extensions'] value completely'. Instead of the proposed 1,000 houses, therefore, a meagre 70 were built in the south-west corner of Basavanagudi and sold on hire-purchase, although the monthly payment was too high (Rs 7/8/0) for most workers then earning about Rs 19.⁶¹

Land was acquired for settling the industrial labour and poor in the city. The government took up housing initiatives and urged the factories too to build houses for their workers. Nair (1998) traces the history of these acquisitions and the various attempts of housing, very often half hearted and never completely satisfactory, the expanding labour force in Bangalore city.

One such attempt was made by the government which acquired 18 acres of land in Kethamaranahalli village in the 1930s to build a labour colony.⁶² Under the government's pressure, industries and businesses had to concede to the housing needs of their workers though reluctantly. Binny Mills was one such organisation which planned to acquire lands in the western part of the city. By 1928, the total acquisition of prime lands stood at 17 acres for building houses for its workers. But, it was delayed by 16 years.⁶³

Like Binny Mills, Mysore Mills and Minerva Mills also acquired land for establishing labour colonies in 1928-29.⁶⁴ There were a few attempts to build houses for their workers by the small-scale enterprises. By 1944, Yadalam Subbaiah Chetty's Mill, situated on the outer edge of the city made provision for 216 rent houses for its 700 workers. Housing provision was meant for upper caste workers whereas land was rented for the lower caste workers to build their houses.

Population

The industrialization of Bangalore town started attracting people from various places over a period of time. The table 2.3 shows the growth of Bangalore's population between 1881 and 1951.

Table 2.3**Decadal Population increase 1881-1981**

Year	Bangalore Town		Total & Percentage of Increase		Increase in the Population & the Percentage of Increase			
	Native Town	Civil Station			Native Town		Civil Station	
1881	62,317	93,540	1,55,85	---	---	---	---	---
1891	80,285	1,00,08	1,80,36	15.72	17,968	28.83	6,541	6.99
1901	69,447	89,529	1,58,97	-11.85	10,838	-	10,552	-
1911	88,651	1,00,83	1,89,48	19.19	19,204	27.65	11,305	12.62
1921	1,18,55	1,18,94	2,37,49	25.33	29,905	33.73	18,106	17.95
1931	1,72,35	1,34,11	3,06,47	29.04	53,801	45.38	15,173	12.75
1941	2,48,33	1,58,42	4,06,73	32.71	75,974	44.07	24,313	18.12
1951	5,00,78	2,78,19	7,78,97	91.51	2,52,45	101.6	1,197,6	75.59

Source: Report of the Bangalore Development Committee: 14

This period witnessed gradual increase in population except during 1891 and 1901 when the population decreased due to plague. The 1941-1951 decade witnessed almost doubling of population. Till 1921 the civil and military station population was larger than the native towns. During the later decades, the growth of the population of the Native Town was much faster than the civil station's. This shift in population growth could be attributed to various developments in the Native Town mentioned earlier.

Post-Independence Period: Phase I- Bangalore City and the Industrial Mode of Development

In the post-independence period with the establishment of the new government in the Mysore State, development became the focus of both the Union government and the state government. Within the broader process of development, industrial development was one of the major components. Bangalore was the chosen centre for the establishment of industries, which already had a developing base. In this section an attempt is made to outline the industrialization programme which led to greater spatial-demographic changes in the city and the changes in social spaces.

Spatial and demographic changes in the city

The population of the united Bangalore City Corporation was 7, 78,977 lakhs, and the total area was 25.5 square miles in 1951.⁶⁵ In 1961, the bounded area was named as 'Bangalore Metropolitan Area Town Group'. The urban area included Bangalore City Corporation, Trust Board Area (CITB), Devarajeevanahalli, Jalahalli, Jodi Kempapur, Kadugondanahalli, Kethamaranahalli, Yelahanka, Yeswantapura and H.A.L. Sanitary Board. This metropolitan area town group occupied an area of 193.52 sq. miles and a population of 12, 06, 961 lakhs.⁶⁶ The city had become a metropolis. During 1951-1961, the population increase was by 54.94 percent and spatial expansion was 658.90%. The spatial expansion during this decade was unprecedented. The 1971, census 'Bangalore Urban Agglomeration' included Bangalore City Corporation, CITB, BEL Township, Devarajeevanahalli, HAL Sanitary Board, HMT Township, ITI Notified Area, Jalahalli, and Kadugondanahalli.⁶⁷ Bangalore urban agglomeration's total area remained the same at 193 sq. miles of which corporation area was 46 sq. miles and the remaining area constituted the suburb.⁶⁸ Bangalore's population had increased marginally to 15, 40,741⁶⁹ and decadal increase was 27.65%.

The main reason for the increase in city's population has been migration. During 1941-51, migrants generally were from Tamil Nadu, Andhra Pradesh and Kerala. The total population growth contribution dropped from 20 percent in 1961 to 15 percent in 1981.⁷⁰ The natural increase of the population in the city was 65%, whereas the increase of population due to migration stood at 35%.⁷¹ The contribution of inter district migration to the city's population growth was 13%, 14%, and 15% in 1961, 1971, and 1981 respectively.⁷² Migration was propelled by the perceived opportunities for education, marriage, employment etc.⁷³ The rapidly expanding city which provided increasing employment and educational opportunities acted as pull factors and the impoverished regions socio-economic conditions acted as push factors for migration.⁷⁴

Industrialization

The increase in the concentration of population and the spatial expansion were mainly attributed to rapid industrialization. Bangalore by the middle of 20th century enjoyed certain advantages which laid the foundation for further expansion of industry. It was the most prominent trading centre located among 18 towns within 25 kilometres radius. Cotton cultivation, sericulture, availability of- timber, quality clay, etc., in the hinterland (Umland⁷⁵) of Bangalore had aided the expansion of industry and trade in Bangalore over a period of time. The infrastructure for industrialization that was already in place was the availability of hydro-electric power. Apart from that the overall industrial policy and state government's assistance made a great impact on the industrialization of the Bangalore Town.

What followed was the planned economic development. Bangalore was already a place where modernization in many spheres, had become a defining attribute of the city. Industrialization was central to modernization process which was initiated and encouraged by the Princely Mysore State. Given this backdrop Bangalore drew the attention of policy makers at the National level.⁷⁶ In one of the visits to Bangalore, Prime Minister Nehru said: 'Bangalore is very much a picture of India of the future, more especially because of the concentration of science, technology and industries in the public sector here.'⁷⁷ Bangalore City became the site for the planned industrial development. The national policy channelized resources for the development of public sector enterprises-large-scale heavy industries.⁷⁸

Many large scale public sector industrial units were established in Bangalore. These large scale industrial units under the central government were producing aircrafts, telephones, machine tools, watches, electrical and electronic equipments and earth movers. Apart from that state government factories of the pre-war period were in operation and the only addition to them during the post-war period was the establishment of the largest electrical switchgear unit. Private sector industries comprised of five textile mills, and factories making car components, cigarettes, electric motors and transformers. There were small-scale ancillary units producing 'components for the large public sector factories, as well as batteries liquid oxygen, tin cans, canned fruits and a wide range of engineering and consumer goods.' Coupled

with industrialization was the concentration of research institutes.⁷⁹ Both internal economies and external economies greatly favoured Bangalore's industrialization.

Import controls give Bangalore's engineering, electronic and consumer-goods industries an assured market for almost all they produce; and Bangalore remains a most attractive location for new private or public sector investments because of its external economies, especially skilled labour. All 'organized sector' factories have to take a quota of apprentices, though not necessarily to employ them afterwards; and the training sections in public sector factories are intended not only to meet the factories' own needs, but to train workers who will find work elsewhere.⁸⁰

The period between the late 1940s and the late 1960s was a period of intensive industrialization. In 1951 there were 293 industrial units employing 45,878 organized sector industrial workers. Bangalore survey conducted by Singh (1964) found that by late 1950s there were 432 large-scale industrial units of which ten were owned by the government, remaining units were private.⁸¹ Though all of them were termed as "large-scale" industrial units, the average number of workers employed by them varied vastly between 8100 workers to 10 workers in a unit. Consumer goods and durables produced in them were textiles, engineering, minerals and metals, food, drink and tobacco, chemicals, dyes, paper and printing, process relating to wood, stone, and glass, hides and skin, and electrical, readymade garments and hosiery.⁸²

Table 2.4

Types of Industries- 1964

Category of Industries	Large-scale	
	No. of Industries	Avg. No. of Workers
Textiles	164	23721
Engineering	66	20756
Mineral and Metals	09	671
Food, Drink & Tobacco	25	3990
Chemicals, Dyes, etc.,	60	3784
Paper and Printing	26	1524
Process relating to Wood, Stones &	23	2428
Process connected with Hides and	28	1540
Miscellaneous	31	7750
Total	432	66164

Source: R. L. Singh, (1964) Bangalore- An Urban Survey, pp. 133-139.

Through 1960s and the early 70s there was an expansion of State government bureaucracy, state run businesses⁸³ and informal sector⁸⁴. By 1970s Bangalore had large scale industries and their ancillary medium and small scale industries. 'By the 1970s, Bangalore was the acknowledged centre of the public sector, and new state run

units such as New Government Electric Factory (1961), HMT Watch Factory (1972), and Bharat Heavy Electricals Limited, were added to the existing structure; clustered around the public sector giants were the giant national laboratories, such as the National Aeronautical Laboratory (NAL), Defense Research and Development Organization (DRDO) and Electronic Research and Development Establishment (LRDE) to the east, and the Indian Space Research Organization (ISRO) and Central Power Research Institute (CPRI) to the north-west. In addition to these, factory-lab complexes were the research and development wings internal to every public sector unit. Bangalore could thus stake a stronger claim to be a Science City than the time when the Indian Institute of Science (1909) existed in somewhat splendid isolation.⁸⁵ The large scale public sector industries created enclaves which included residential and other urban amenities attached to them, on the outskirts of the city.

By 1960-61, the industrial units had increased to 680 and the industrial workers in the organized sectors had increased to 98, 866. By 1971 the number of industrial units had increased to 3,709 and the number of organized sector workers to 1, 06,008.⁸⁶ Large Scale industrialization gave rise to the forward linkages of spawning medium and small-scale ancillary industries.

Different Types of Employment

In the first two decades of the post-independence period, there were great changes in industrialization and employment scenario in Bangalore City and its adjoining expanding areas.

Table 2.5

Working Classes within the Bangalore City Corporation Limits- 1951

Agricultural Classes		Total	Non-Agricultural Classes		Total
Cultivators of owned land	Self-Supporting Persons	707	Production (Other than Cultivation)	Self-Supporting Persons	63259
	Non-earning dependents	3473		Non-earning dependents	170287
	Earning Dependents	135		Earning Dependents	16649
Cultivators of unowned land	Self-Supporting Persons	371	Commerce	Self-Supporting Persons	34037
	Non-earning dependents	1450		Non-earning dependents	107301
	Earning Dependents	114		Earning Dependents	7442
Cultivating Labourers and their dependents	Self-Supporting Persons	272	Transport	Self-Supporting Persons	9121
	Non-earning dependents	620		Non-earning dependents	29097
	Earning Dependents	39		Earning Dependents	2348
Table 2.5 contd.	Self-Supporting Persons	968	Other	Self-Supporting Persons	94021

Non-Cultivating owners of land	Non-earning dependents	3912	Services & Miscellaneous sources	Non-earning dependents	214132
	Earning Dependents	182		Earning Dependents	19040
Total		12243	Total		766734

Source: Census Handbook, 1951, Bangalore District, pp. 50-53.

The Table 5 shows that in 1951, the total population of Bangalore City Corporation limits had 7, 78, 977 which included both Agricultural Classes which were marginal when compared to the total population, and Non-Agricultural Classes. Among the agricultural classes, excluding non-earning dependents, the actual number of all types of employed agriculturists and labourers was 2,788. And among the non-agricultural classes, excluding non-earning dependents, the actual number of all types of employed non-agriculturists and labourers was 2, 45,917. The total number of workers was 2, 45,917 out of a total population of 7, 78,977. Production and Other services dominated the employment scene in the city. The organized sector provided employment to 45, 878 person⁸⁷ constituting 20% of the total employment. The remaining 80% of the employment was in the informal sector.

Table 2.6

Workers and Non-Workers in the Bangalore Metropolitan Area Town Group (1961)

Workers	Bangalore Metropolitan Area Town Group	Percentage
Cultivators	20,490	5.23
Agricultural Labourer	5,143	1.31
Mining, Quarrying, Livestock, Forestry, Fishing, Hunting, and Plantations, Orchards and allied activities	4,963	1.26
Household Industry	17,308	4.41
Manufacturing other than Household Industry	1,18,040	30.14
Construction	21,646	5.52
Trade and Commerce	49,309	12.59
Transport	19,350	4.94
Other Services	135,342	34.56
Total	391591	100
Non-Workers		815,370

Source: Census of India, 1961, *District Census Handbook*, Bangalore District, pp. 16-19.

The Tables 2.5 and 2.6 show that of the total population (12, 06,961), the total number of workers was 3, 91,591 and non-workers was 8, 15,370. With the grouping of many newly developed areas the number of cultivators and agricultural labourers had

increased. Other services and Manufacturing had characterized the employment in the urban and newly developed areas. The number of workers in the organized sector was 25.24 (98,866⁸⁸) of the total (3, 91,591) workers. The informal sector had 74.26% of the workers.

The functional category of an urban area as per the Indian census is decided based on the following criteria:

[F]or each town the percentage of workers under each of these five classes of economic activities [Primary activities, Industry, Trade and Commerce, Transport, and Services] to the total number of workers is calculated. If the percentage under any of these five activities equals or exceeds 40, such a town is regarded as mono-functional and that activity is specified...If the figures against any two add up to 60 or more, then such a town is regarded as bi-functional and the two predominant activities are specified...In case, the percentages of any two of the activities do not add up to 60 per cent such a town is regarded as multifunctional and in such a case, three of the predominant activities are specified.⁸⁹

Table 2. 7

Activities and Workers in the Bangalore Urban Agglomeration- 1971

Name of the Urban Areas	Population	Functional Category of population involved in economic activities
Bangalore City inclusive of CITB Area	15,40,741	Industry-cum-Services-cum-Trade and Commerce
B.E.L. Township	6,825	Industry-cum-Trade and Commerce-cum-Services
Devarajeevanahalli	17,734	Industry
Table 2.7 Contd. H.A.L Sanitary Board	33,985	Industry
H.A.L Township	15,164	Industry
Table H.M.T Township	11,154	-
I.T.I Notified Area Duravaninagar	9,875	Industry
Jalahalli (Excluding H.M.T Townwhip)	12,533	Services
Kadagondanahalli	5,768	Industry
Total	1653779	

Source: Census of India 1971, Series-14, District Census Handbook, Bangalore District Part X-A: Town and Village Directory, pp. 8-11.

In 1971 (see Table 2.7) Bangalore city's economic activities were industry cum-services-cum-trade and commerce. Of the total population of 16, 53,779, the organized sector workers were 1, 06,008⁹⁰. The Table 2.7 also gives a picture of the areas which had developed newly. In 1975, there were 3,051 industrial units and 1,74,544 (100%) workers were in the Bangalore urban agglomeration employed in different types of industries- Automobile, Chemical, Electrical, Electronics, Ferrous and non-ferrous metal, Food, beverages and tobacco industries, Glass & Ceramic, Job work, repairing & servicing, Leather, Mechanical, Paper & pulp, Plastic, Printing, Rubber based, Textiles, Wood, etc.⁹¹ The Economic Census conducted by the Government of Karnataka revealed that Bangalore Urban district had 7,918 industrial units having 79,649 (45.63%) workers in the informal sector employed in textiles, leather, food &

beverages, metal, electrical & electronic machinery, machinery other than electrical, transport equipment, chemical, ceramic, wood, paper and printing, etc.⁹²

Social Spaces

Bangalore city was made of two old pre-independence core developments and the later inclusions. The newly developed CITB areas with planned civic spatial products and services; B.E.L Township, H.A.L Sanitary Board, H.A.L Township, H.M.T Township, and I.T.I Notified Area were the industrial townships which included the large scale of industrial complexes with their planned residential areas equipped with civic spatial products and services; and other three areas- Devarajeevanahalli, Jalahalli and Kadagondanahalli were industrial areas with their own planned or unplanned residential areas.⁹³ CITB had formed 53 planned layouts during 1945-1973.⁹⁴ There were also 150 private layouts approved by the planning authority (CITB) formed by individuals and the housing cooperative societies.⁹⁵ These were planned areas for the middle class.

R.L.Singh's urban survey (1964) indicated that the floor area occupied per family (in sq.ft) differed considerably in different residential areas based on social classes (see Table 2.8)

Table 2.8
Classes and the Quality of Housing - 1964

Types of Residential Quarters	Locality	Floor Area occupied per family in sq. ft.	No. Of Families	Population	No. of Households per house	No. of people per household	No. of Dwelling house per acre
Aristocratic	High Ground	Above 2000	1347	8311	1.81	11.81	1.0
High Middle Class	Malleswaram West	1000- 2000	2624	16464	1.61	10.12	4.0
Medium Middle Class	Visweswarapuram area	500-1000	2136	14742	1.85	12.91	7.58
Low Middle Class	Chamarajpet West	300-500	3841	24678	2.20	14.17	9.60
Low Income Group	(a)Kemmanagundi	Below 300	2434	16741	2.95	20.19	13.77
	(b)Anjaneya Temple	Below 300	2473	14927	2.08	12.54	37.10
Total			14855	95863			

Source: R. L. Singh, 1964, *Bangalore: An Urban Survey*, p. 68.

Who were these migrants and where did they settle in Bangalore? Bangalore City had its poor social areas known as unauthorised layouts and slums. In 1950s there were 92 slums with a population of 58, 871.⁹⁶ Migrants from rural areas were residing in the 'slums'⁹⁷ and these areas were also characterized as 'factory zone'.⁹⁸ People of these areas were involved in low paid and menial jobs.⁹⁹ Further the Singh's (1964)¹⁰⁰ survey also showed that the lower/scheduled caste communities¹⁰¹ were the predominant in the slums. These slums were spread over 'open spaces' in the city and its periphery¹⁰² and near to the water bodies-tanks.¹⁰³ The reason for the growth of slums could be attributed to the lack of access to state provision of legal, developed land. Bangalore had 93 slums by 1959-1960.¹⁰⁴ Slums within the Bangalore City Corporation limits were viewed as "eye-sore" to the "visitors and tourists" of the "beautiful garden city" and its population had increased to about 75,000.¹⁰⁵ Redevelopment of slum areas to conform to civic order and its aesthetics was taken up over a period of time. There were other layouts which were being created for slum dwellers in this period. Seventeen acres were planned to be acquired near Venkataswamy Garden, 70 acres near Audugodi, 671 sites were to be bought from CITB at Jayanagar, and 20 acres near Hosahalli- to rehouse slum dwellers in various parts of Bangalore City.¹⁰⁶ Ten acres of land was acquired to rehouse slum dwellers at Munivenkatappa Garden Ulsoor.¹⁰⁷ Hundred and fifty sites were bought alongside Magadi Road. 417 sites at Magadi Road Chord Road Layout were purchased from CITB. 18 acres and 2½ guntas of land were acquired at Kempapura Agrahara to rehouse 420 families of slum dwellers of Goripalya¹⁰⁸. Six multi-storeyed buildings built by CITB located at Jayanagar, Okalipuram and Sonnenahalli –were bought for slum clearance and improvement.¹⁰⁹ Apart from that there were 13 slums which were being redeveloped by CITB.¹¹⁰

There were many unauthorised layouts which had developed over a period of time.¹¹¹ How did an unauthorized/revenue layout¹¹² look? One could get the glimpses and one such layout in 1960s was called Padarayanapura¹¹³ Padarayanapura was a village on the periphery of Bangalore City.

Padarayanapura is about ¼ sq. miles in area and lies on the right hand side of Bangalore-Mysore Road off Sirsi Circle. The area was known as Padarayanagutta (Hillock) in olden days when it was a village and most of it was rocky area which can be seen even today. Houses sprang up gradually occupying every bit of land blasting the rocks in the revenue lands around the village. Later it came to be known as Padarayanapura...Originally the area was under the jurisdiction of Bangalore North Taluk with a village panchayat and came under the City Corporation in the year 1958-59. Padarayanapura is in the western zone of Bangalore City.

About 1/3 area of Padarayanapura comes under Corporation Division No. 21 along with adjoining areas such as Royapuram and Binnyet. The remaining 2/3 area comes under Dn. No. 23. along with areas like Goripalya and Guddadahalli. However it is a compact area surrounded by Bangalore-Mysore Railway line on the west and Goripalya a predominantly schedule caste area on the East, Binnyet, a textile mill workers' colony separated by a garden land on the north and burial ground on the South.¹¹⁴

Padarayanapura was developed as an 'unauthorized'/'revenue pocket'. It continued to be in civic chaos even after a decade since it was appropriated into the limits of Bangalore City Corporation. It was a heterogeneous area made of population belonging to various castes, languages, and religions. It was basically a 'lower class' settlement with people involved in informal sector. People belonged to three religions- Hindus being the majority, followed by Muslims and Christians. There was a multiplicity of castes - Vokkaligas being the majority, followed by Devangas, Balijigas, Modaliars, Marattas, Nairs, Kaniars, Goldsmith, Lingayats, Brahmins, Dhobis, Barbars, Bajis, Thigalas, Scheduled Castes, Kshatriyas, Potters, Ganigas, etc. In addition, many linguistic groups were represented. Kannada being the majority language, followed by Urdu, Telugu, Tamil, Marathi, Malayalam, Konkani, Tulu, etc.¹¹⁵ Padarayanapura was visualized as 'harmonious' and a community which was becoming 'cosmopolitan'¹¹⁶. The general social milieu/atmosphere was characterized as follows- "There appears complete harmony among all the castes participating freely in local festivals and celebrations. Orthodox caste system is slowly giving way to cosmopolitan views. Though caste feelings and practice is in vogue in some of the communities, people do not express them explicitly..."¹¹⁷

Padarayanapura was a densely populated area. It was a congested and an unplanned area where housing, roads, water supply, electrification, etc., were still in a rudimentary stage. The majority had less than 100 sq. ft. living space. It was observed that the roads, sewage system and other civic amenities were in a 'pathetic' condition.¹¹⁸ This place was inhabited by factory workers, weavers, agarbathi makers, petty businessman, people who were in government service, drivers, casual labourers, workers involved in Beedi rolling, etc. This place had petty metal work factories which manufactured steel vessels, copper and brass vessels and electric pipes.

Another survey of a revenue/unauthorized layout – Karithimmanahalli revealed patterns similar¹¹⁹ to that of Padarayanapura. It was said that-

Karithimmanahalli was until 1936 known as Anchepalya. It is located in the South-West of the City of Bangalore and is on the left hand side of Bangalore-Mysore Road. It is a compact area surrounded by a huge quarry and a hillock on the East, a private Timber Yard on the West, Ragi fields on South and a burial ground upto Mysore Road on its North. This area has been merged in the Corporation during 1962. The area comes under 24th Division of the City Corporation.¹²⁰

It is a compact area with houses constructed in rows on the sides of roads...There is complete sense of belonging to the area and to the community among these residents who are displaying sentiments of rural people more than the urbanites...¹²¹

Karithimmanahalli was still a developing area having inadequate civic amenities. It was an area yet to lose its rural features. Still the land surrounding the place was agricultural. It was inhabited by caste-Hindus¹²² and Muslims. Vokkaligas were in majority, followed by Goldsmiths, Brahmins, Weavers, Halmuthas, Ganigas, Reddys, Banajigas and Schedule Castes. Kannada was spoken by the majority, followed by Urdu and Telugu.¹²³ These people were factory workers, government servants, carpenters, casual labour, petty businessmen, weavers, agarbathi workers, milk vendors, blacksmiths, tailors, contractors, etc.¹²⁴

Many other areas had similar features. Fifty percent (50%) of the employed population of the city Bangalore were in the informal sector. They included those working in small scale industries, machine-shop-cum-foundries, cottages industries, shops, self-employed people who were making agarbathis, selling milk, construction workers, petty contractors, auto-rickshaws owners and drivers, street vendors, market porters etc.,¹²⁵

In terms of city-size, city-growth, and functional rank Bangalore city held a primate position in the State of Karnataka, because none of the town in State resembled its development, growth and expansion pattern.¹²⁶ In the first phase from 1951-1971, the city of Bangalore had become an industrial city. During 1951-1961, 50% of the increase in population was found in the 'marginal areas'/'outer zone' of the city.¹²⁷ The growth of population had high correlation...with industrial population... During the decade 1961-71, the population increase in sub-urbs was 92%. In contrast, the increase in the city was only 35%. Thus, the city's sub-urbs grew faster than the inner city, during the decade of 1961-71, revealing the industrialization of the sub-urbs which had a total population of 1, 13,038.¹²⁸ The city had become a multifunctional city¹²⁹. It reveals the industrialization of the outward moving city¹³⁰.

The above analysis of the industrial city of Bangalore gives a fragmented picture. The city was made with few of the large scale public sector industrial units and the accompanying residential layouts, recreational spaces, commercial spaces, etc., which gave greater impetus to urbanization. Large scale industrialization spawned chains of medium and small scale industries too. Apart from that the city expansion was aided by the creation of CITB layouts. Simultaneously there were also other growing social spaces and the economies though apparently presented as the spaces disconnected to the major process of the growth of industrial constituents. But, as the facts in the preceding analysis show that the poor migrants and other poor people of the city were contributing to the sustenance of the industrial economy. But the legality of their spaces of existence was questioned. The urbanization process was construed in terms of the “growing complexity of social interests”¹³¹ due to the influx of population in the City. One could also see the poorer castes and the adaptations. Such adaptations lacked legitimacy and were viewed by the governmental establishment as entities needing amelioration. This was all happening in the context of the legal production of space in an expansive form by the government or the quasi-governmental associations for their own purposes. The importance and contribution of the informal economic sectors to the industrial economy was required for the growing urban society but was not acknowledged legally.

New Mode of Industrial Development- Phase II

This section would try to outline the new characteristics of Bangalore’s urbanization in the changing context. The transition period of the 1970s gave rise to new changes, including the development of new economy and the spatial expansion of Bangalore city. In the last two decades of the twentieth century Bangalore became a ‘network city’. The changes included the new modes of organization of the city and the city planning, industrialization, organization of government and its activities, etc. The new mode of industrialization began to emerge in the ‘new milieu of innovation’, not only in terms of the technological development but also in the spheres of organizational principles of production of various goods and services. The existing industries had to adapt to the emerging innovations in the new technological context, and, also the organization principles of production to sustain and improve the business.¹³² Apart from

that the new enclaves of production of software characterized urbanization of Bangalore. This resulted in Bangalore city being connected to the global production system.¹³³ In the following sections, attempt has been made to see to what extent the new mode of industrial development with the existing industry had consequences for demographic and spatial changes, and in the creation of new social spaces.

Spatial and demographic changes in the city

The 1970s is considered as a turning point in development of Bangalore city since it experienced fastest growth in population and spatial expansion. During the 1970s, urbanization and spatial expansion of the city became much more elastic. The population of Bangalore urban agglomeration, according to the 1981 census the population was 29, 27,751 and the area was 365.7 square kilometres. Bangalore Urban Agglomeration consisted of new areas - Baiyyappanahalli Manavarti Kaval, Hebbal, Kadenahalli (included Ramamurthy Nagar), Kalagondahalli, Kengeri, Lingarajapura, and Yelahanka, and the old areas of Bangalore City Corporation areas and the adjacent BDA developed areas, B.E.L. Township, Devarajivanahalli, H.A.L. Township, H. A. Sanitary Board, H.M.T. Township, H.M.T. Watch Factory Township, I.T.I. Notified Area (Duravaninagar), and Jalahalli - excluding the area under Bangalore Corporation, B.E.L Township, H.M.T. Township and H.M.T. Watch Factory Township.¹³⁴ Though these were broadly the areas classified under urban agglomeration, 34 villages and 4 other areas in the far flung places from the city belonged to Bangalore North Taluk and 41 villages were characterized as outgrowths and were reckoned as urban areas.¹³⁵ Population in the urban agglomeration experienced 76% growth during 1971-1981 compared to the previous decades of 1951-61 (53%) and 1961-71(38%) respectively.¹³⁶ Of the total population growth, 62% was due to the natural growth and 38% was due to migration.

In Bangalore Agglomeration Area, in 1981, the working population constituted 29.76% of the total population.

Table 2.9**Kinds of Occupation and Number of Workers - 1981**

Main Workers in the Bangalore Urban Agglomeration Area- 1981		
Types of Work in Various Occupations		Percentage of Workers
Cultivators		0.93
Agricultural Labourers		0.90
Livestock, Forestry, Plantations, Fishing, Hunting, Orchards and Mining & Quarrying and Allied Activities		0.83
Manufacturing, Processing, Servicing & Repairs	Household Industry	2.76
	Other than Household Industry	34.68
Construction		6.06
Trade & Commerce		18.56
Transport, Storage & Communications		9.49
Other Services		25.80

Source: Ravindra, A.(1992) *Metropolitan Management-A Management Perspective*, p. 187.

Table 2.9 gives a picture that in 1981, the percentage of workers was in manufacturing followed by services in trade and commerce. See Table 2.9.

In 1981 Population of migrants in Bangalore U.A. was 1.09 million¹³⁷ and migrants formed 38% of the total population.¹³⁸ The population increase in the urban agglomeration was due to inter-district and intra-district migration from within Karnataka and also from other states in South India, and migration from other states was showing a decreasing trend.¹³⁹ The city drew people from various parts of the State, from other parts of the Country and from both rural and urban areas. Bangalore U.A had 59.4% of the migrants who came from different districts of Karnataka, of which migrants from Bangalore rural areas was 20.6%. Other three Southern States of Andhra Pradesh, Tamil Nadu and Kerala accounted for 33% of the migrants, and people coming from all the other States in the country 6%. 58% of the migrants of Bangalore were from urban areas, while the remaining 42% were from rural areas.¹⁴⁰ According to the 1981 census, the reasons¹⁴¹ for migration were for employment, education, family's relocation to the city, marriage and other reasons.¹⁴²

The table 2.10 gives the occupations of migrants. Apart from organized industrial employment, migrants from the middle class background took up administrative and managerial employment in public and private sectors. However, the lower middle class and poor migrants took up other menial jobs.

Table 2.10- 1989**Kinds of Occupations and Migrants**

Occupation	Male Migrant Workers	Female Migrant Workers	Total
	Total	Total	
“Low Status Services”	28607	2622	31229
Production & Transport related Workers	109844	4282	114126
Sales Workers	23863	553	24416
Primary Producers	2572	91	2663
Clerks	39471	3469	42940
Administrators, Executives, Managers	21381	441	21822
Professionals	29004	3841	32845
Unclassifiable Occupations	11395	740	12135
Totals	266137	16039	282176

Source: Johnson Samuel & Lingaraju 1989, *Migrants in Bangalore*, p.31.

Bangalore U.A’s population increased to 4,169,253 in 1991¹⁴³ to 5,686,844¹⁴⁴ in 2001. During 1981-1991, the population increased in the city was more than 12 lakhs - the contribution of natural increase was 22%, and of migration was 45% and due to the expansion of the jurisdictional boundary the increase in population was 33%. Similarly, during 1991-2001, the population increased in the city was more than 15 lakhs- the contribution of natural increase was 22%, and of migration was 45%. Due to the expansion of the jurisdictional boundary the population increase was 33%. The contribution of migration to city’s growth had increased from 35% during 1961-81 to 45% during 1981-2001. During the same time, boundaries of Bangalore city had expanded from 365.7 square kilometres (in 1981) to 457.10 square kilometres in 1991¹⁴⁵ and to 530.85 square kilometres in 2001¹⁴⁶.

Table2.11**Causes for increase in Population: 2001**

Composition	1981-1991 (million)	% of Total	1991-2001 (million)	% of Total
Natural Increase	0.266	22%	0.342	22%
In-migration	0.544	45%	0.700	45%
Jurisdictional Change	0.403	33%	0.519	33%
Total Increase	1.209	100%	1.557	100%

Source: http://www.badbangalore/Vision_Document_RMP2015_BDA.pdf, (accessed on November 14th, 2007), p. 9.

There was a fall in the population growth rate during 1981-2001 as compared to the earlier two decades. During 1971-81, the growth rate was 76%, whereas in the following two decades of 1981-1991 and 1991-2001, population growth rate were 41.36%, 37.69% respectively¹⁴⁷. But, in absolute terms the increases were still

significant, because in terms of number, 41.36% was more than a million and 37.69% was a million and a half. The spatial expansion during 1971-1981 was 17.27% whereas during 1981-1991 and 1991-2001, it was 9.14% and 7.37% respectively. During the last two decades of the 20th century the occupational profile of the city had undergone a major change. In 1991 and 2001, 17 and 8 urbanized villages were added to the Bangalore U.A. respectively.¹⁴⁸

Table 2.12

Workers and Kinds of Occupations in the Bangalore Urban Agglomeration Area- 1991

Main Workers in the Bangalore Urban Agglomeration Area- 1991	
Types of Work in Various Occupations	Percentage of Workers
Cultivators	5.92
Agricultural Labourers	4.60
Livestock, Forestry, Plantations, Fishing, Hunting, Orchards and Allied Activities	0.97
Mining & Quarrying	0.80
Household Industry	1.32
Manufacturing, Processing, Servicing & Repairs Other than Household Industry	30.08
Construction	8.13
Trade & Commerce	19.63
Transport, Storage & Communications	7.60
Other Services	20.95

Source: *District Census Hand Book*, 1991, Bangalore¹⁴⁹, pp. ix-x.

In 1991, with the addition of more villages into the city fold; the number of agriculturists and agricultural labourers had increased. However, the population working in manufacturing and services were still high. Apart from that in the last decades, the enclaves of the city also attracted people to be employed in the software industries. The large proportions of the migrants were considered as ‘well educated and qualified’¹⁵⁰ and skilled labour.

Industrialization and Changing face of Employment in the City

In the following section the changes in the industrial scene with the initiation of new mode of industrial development and the changing nature of employment in the city will be discussed. Such an analysis would give the idea of a kind of transition that the city has been going through over a period of time. Government’s policy of

‘dispersal of industries and prevention of heavy concentration in highly developed pockets’¹⁵¹ notwithstanding - ‘The number of industrial units, classified under large, medium and small, burgeoned to 5,641 in 1981 compared with the more modest 283 units of the early 1950s. Comparably, workers in the city increased from 45,878 to 212,506 during the same period. Combined with the service sector workers in 1971, the total workforce of the city was 576,531. A high proportion of textile, automobile, electrical, and electronic units were based in the city, and nearly all the state’s workers in these industries were located in Bangalore. Over 73 per cent of the private sector workers were in these industries.’¹⁵²

By the mid 1970s, a new wave of industrialization was introduced to the existing Industrial base. A new type of concentration of ‘sunrise industries in high-technology fields’ had been planned by Karnataka State Government, to ‘generate the kind of synergy associated with milieu of innovation’¹⁵³. This kind of state supported industrialization gave a new fillip to urbanization. The result was the establishment of Karnataka State Electronics Development Corporation (KEONICS) by Government of Karnataka’s department of medium and large industries. Keeping intact the spirit of mixed economic style of development, the new corporation made entry into production by setting up its own plants in alliance with Indian and foreign companies. It also encouraged the private enterprises through ‘marketing support, and ran manpower training centres.’ In the context of State-led industrialization, Government lacked capital and the technological sophistication to start high-technology industries. Government was mainly confronted with the problem of under-accumulation. Under these circumstances Government played the role of a facilitator by creating infrastructure and land, and by allowing and aligning with the private sector to develop high technologies in the electronics and ‘telematics’.¹⁵⁴

The establishment of industrial estate known as Electronics City in 1977 had much greater consequence for the later growth of the city in terms of rate of spatial expansion and population too. Karnataka Industrial Areas Development Board (KIADB) acquired 136 hectares of green belt land for the purpose which was 18 kilometres away from the city along the Hosur Road in the south-eastern direction.¹⁵⁵ All this was happening in a broader national context of quest for modernization and to open up to new technologies which were of strategic importance. In the initial phase,

that is, right from the 1950s and through to the 1970s, India had few computers, and technical experts and the foreign industry was non-cooperative with the government of India in the production of such electronic goods. So the Government had to resort to similar pattern of setting up of its own centres for production, and research and development by pooling in resources and expertise, within the planned development framework.¹⁵⁶

Alongside these new attempts, in the early 1980s Bangalore still was underscored by public sector industrial presence. Imaged as an ‘Industrial Complex’ with high-rise and industrial environment in the background, the products were foregrounded to ‘*depict scenes associated with the manufacture of watches, telephone and aircraft and [was] intended to convey the depth of industrial transformation achieved by Bangalore district in general and Bangalore city in particular*’ (emphasis added).¹⁵⁷ Further, Bangalore city was attributed the sense of ‘pride’ for its achieved industrial status-

The neighbourhood of *Bangalore city has attracted several prestigious public sector undertakings* such as the Hindustan Aeronautics, Indian Telephone Industries, Bharat Electronics, Bharat Heavy Electricals, Bharat Earth Movers, Hindustan Machine Tools, Hindustan Machine Tools-Watch Factory and Railway Wheel and Axle Plant. During the post-independence period the city and its neighbourhood have witnessed a phenomenal growth of large, medium and small scale industries. The products manufactures by these industrial units cover a wide spectrum which is expanding with the passage of every year (emphasis added).¹⁵⁸

Public sector industries were generating large scale employment- ‘By the early 1980s, the public sector industries, including the HMT watch factory and BHEL accounted for over 80,000 jobs: well into the 1990s, HAL alone accounted for more than 42,000 jobs.’¹⁵⁹ Several Large scale private sector industrial units – ‘Motor Industries Company Limited, International Instruments, and Amco Batteries...Kirloskar Electric’ – did match the public sector in terms of size and employment, but could not overshadow it.¹⁶⁰

Coming back to the question of high technology industries, policy of the Government of India was fast changing in the 1980s. Individual efforts and enterprise- both public and private sector, and foreign aid/collaboration for the development of the new sectors of the economy, like electronics and computer industry was finding a

relatively uncontrolled/liberalized space but it was guided, facilitated and monitored by the Government.

The microcomputer changed everything. Generations of machines became obsolete within months, rather than decades. Voices rose up on all sides, claiming that the effectiveness of Indian organizations required immediate access to new computer technologies, rather than waiting for indigenous capabilities to mature. Prime Minister Rajiv Gandhi, who had a personal interest in microelectronics, cleared the way for the liberalization of the electronics sector, including a 'New Computer Policy' in November 1984. Now there was a 'single window clearance' for import licenses and letters of intent, with an inter-ministerial standing committee of DOE to regulate all clearances of licenses. Import duties for peripherals declined, and imports were allowed for government and research facilities. Any company could manufacture an unlimited number of computers, although foreign equity regulations remained in force. The year 1985 became the 'Year of the PC' as prices plunged and availability expanded.¹⁶¹

The essential prerequisite for the development of software industry and development centres were skilled labour and communication facilities. Bangalore fulfilled such prerequisites. The skilled labour in the region was attracted from public sector manufacturing industries and laboratories in sectors such as aerospace, defense electronics and telecommunications. Subsequently large numbers of graduates from the engineering colleges of Karnataka and neighbouring states were added to the workforce.¹⁶² The Department of Electronics developed the 'Software Technology Parks of India scheme' (STPIs) to provide infrastructure for software production which was purely meant for exports and to attract 'offshore software production'. One of the initial six STPIs was set up at the Electronics City with the government's facilities which included broadband communication networks, tax concessions, and tariff-free imports of equipment. In the context of all these developments, KEONICS claimed Electronics City to be 'Silicon Valley of India' and with more publicity the Silicon Valley image was being projected to the whole of Bangalore city itself. These images apart, there were increasing number of complaints by the occupants of the Electronics City on the worsening condition of infrastructure and the demand for more facilities.¹⁶³ United States Agency for International Development (USAID) had aided Bangalore 'to become a high technology centre in a model similar to Silicon Valley, offering opportunities for expanding Indo-U.S. business contacts.'¹⁶⁴ The drive was not only to assess the feasibility of Bangalore to become a leading high technology centre but also suggest the models and methods to make it a Silicon Valley.¹⁶⁵ It was predicted that the 'advantages of high technology were not necessarily in direct employment, but in a multiplier effect'.¹⁶⁶ To put it in other words, the linkages of high technology industry to various sectors of the economy were unintended / latent with potential to multiply

and eventually create employment in other sectors of the Bangalore's economy and also in much broader national economy.

The liberalization of Indian economy in the early 1990s resulted in 'New Economic Policy' and 'New Industrial Policy'. This new economic regime, in a broader sense, became deregulatory in many spheres of economic activity giving way to the private enterprise and competition in general.¹⁶⁷ With the new export oriented government regime in place, there was a boom in the exports of the IT related labour and services in the initial phases of the development, but later the developments at various levels of the industry and world market made the IT industry to be attentive and shift the focus towards developing mainly the software products.¹⁶⁸ Government was instrumental in creating an image and making provision for land and infrastructure for the IT industrial establishments. All these processes of development of high technology industry configured Bangalore city-space in new ways. Further, liberalization of the economy had its immediate effect on the Bangalore's already growing high technology industry with great promise. To achieve success in exports through software technology parks, KIADB expanded the Electronics City in two more phases within a short span of time in the 1990s. For the second and third phases, 114 hectares and 98 hectares of land was acquired respectively in the adjoining area of Electronics City.¹⁶⁹

Another major development in expanding IT industry was the establishment of 'International Technology Park'. KIADB acquired 22 hectares of land in the Whitefield industrial area located in the east of Bangalore City.¹⁷⁰

As envisioned by the state government in its publicity tools, the corridor began at the Electronics City campus of KEONICS and the Electronics City Phase II of KIADB; followed Hosur Road towards the city past the offices of Compaq, Novell, and Wipro; picked up the newly completed Intermediate Ring Road to the north-east until it intersected a series of offices in Indiranagar; went past National Aerospace Laboratories, Indian Space Research Organization, Hindustan Aeronautics Limited, and the airport; swung north along the Outer Ring Road to pick up the Export Promotion Industrial Park; and ended at the Information Technology Park near Whitefield. Out of 13,700 hectares, approximately 7,300 hectares would be earmarked for IT companies.¹⁷¹

By 2000, the information technology industry accounted for 2,020 individual companies which included 765 specialized in software development and services. Government of Karnataka had a tally of 925 software companies. In terms of employment, according to state government's claims IT firms were employing between 75,000 and 80,000 professionals.¹⁷² Whereas in 1991 'firms specializing in computers and peripherals' employed only 1,672 persons, while 'software firms' employed 947

persons. 'The 'Silicon Valley' characteristics of the economy thus remained minimal in 1991.'¹⁷³

Classified into various sectors, the industrial base of Bangalore city exhibited greater diversity. Despite all these changes, in the 1990s, in various sectors, public sector industries still continued to play a major role in production and as employers. The central government public sector industries were the following. In the automotive and transport sector was Hindustan Aeronautics Limited (HAL) which employed 42,389 persons, the largest number of employees. In the electronics sector- Bharat Electronics Limited (BEL) employed 14,000 persons, Bharat Heavy Electricals Limited (BHEL) employed 4,300 persons, and Indian Telephone Industries (ITI) employed 16,000 persons. In the engineering and manufacturing sector, Hindustan Machine Tools (HMT) employed 8,371 persons. In the electrical and electronics sector - the state government public sector industries were the following: National Government Electric Factory (NGEF) employed 6,500 persons, Mysore Lamp Works 1,418 persons and Mysore Electrical Industries 1,368 persons.¹⁷⁴

There were many private medium and small firms producing components which were used by the public sector firms. Medium and small scale firms in the electronics sector employed 76,000 persons which were producing components for BEL, BHEL, and ITI, within Bangalore urban district. Likewise, in the engineering and manufacturing sector for HMT 'a wide range of medium and small scale industries were producing everything from tools and components to finished consumer goods. A large number of small shops that employed less than 10 persons utilizing power-driven turning and finishing tools contributed to a manufacturing working force of 43,000...number of firms specializing in metal and metal products' was 55,000 workers.¹⁷⁵

There were private firms in the chemicals sector – large and small scale employing 5,000 and 10,000 persons respectively. Apart from that in the chemicals sector, there were private small firms producing incense/agarbathy using manual techniques and employed unaccounted number of people. Private enterprises in the automotive and transport sector- Motor Industries Company, International Instruments, and Amco Batteries Limited employed 6,344, 1,330, 1,310 persons respectively. There

were total of 104,714 persons employed in both large and small scale private enterprises in the electronics/electrical sector in the metropolitan region. Textile industry in all segments – large, medium and small scale – employed 79,000 persons. Textile production was mostly at the household level, but there were a few old large mills producing cloth. Large number of firms producing various kinds of foods and beverages were employing unaccounted number of persons.¹⁷⁶

The informal sector has been growing rapidly. In 1971, the informal employment was 50%¹⁷⁷, in the late 1970s, it was 45.63%¹⁷⁸, and in 1991, it was 65% in Bangalore U.A.¹⁷⁹ The workers of the informal sector were mainly masons, painters, carpenters, helpers in construction, agarbathi makers, domestic workers, factory workers, service providers, autorickshaw drivers, tempo drivers and mechanics, recycling job workers, petty shopkeepers, etc.¹⁸⁰ They were mainly involved in ‘self-employment’ activities and semi-skilled manufacturing and assembly.¹⁸¹ In addition to the above, there were also other informal economic settings termed as ‘economic clusters’ in Bangalore city. Basically these places are organized by the migrants who are engaged in businesses of real estate, trading, and manufacturing by building alliances with local communities and politics. These zones are connected via financial circuits, to different regions of the country in some cases but mainly to rural areas. Investments into these small businesses are cyclical in nature, moving between rural and urban zones. Role of these economic clusters have been to produce goods and services which are untouched by the bigger enterprises of the formal industrial economy.¹⁸² 61% of informal establishments procured raw materials from the informal sector and 71% sold their products back to the informal sector.¹⁸³ This demonstrates the existence of relative autonomy within the informal sector. Despite strong backward linkages, the informal workforce has a main role in building the city, keeping it clean and green, providing various domestic services, etc., without which the city cannot exist and grow in the present context.

Social Spaces

The industrial urbanization of Bangalore had created lived spaces which could be categorized as- industrial townships, layouts formed by CITB-BDA, legal private layouts formed by HBCS, IT residential enclaves, private residential housing estates built by private builders, slums, and unauthorized private layouts. Industrial townships

being the same, all other residential spaces were on the increase. The legal private layouts, unauthorized private layouts, and slums were expanding faster than other types of residential expansions.

The social spaces of the Bangalore have been studied by a few scholars. Holmstorm dealt with different lived social spaces in the context of expanding city. The planned layouts encompassing villages, slums, planned factory townships, unauthorized private layouts and areas of housing provision made by public sector factories. Planned layouts were laid out between the villages, where the former villages retained their identity 'self-consciously' by retaining intact, their village names, families, temples, festivals and titular headmen. He characterizes the planned layout in a following manner- "The filling between old village centres consists of straight avenues, lined with trees, and symmetrical blocks. The narrow winding streets of the centres are paved with tarmac or granite, and usually have underground drains and overhead electric wires."¹⁸⁴ Adjacent to these layouts were the village pockets and slums with "old farm houses or cottages, built of white-washed adobe or small red bricks with roofs of corrugated Mangalore tiles; sheds for the cows which still wander[ed] round the streets and graze[d] on patches of open ground; bigger houses of local landlords and businessmen, often in garishly painted concrete; rows of one- or two-room ground-floor apartments round courtyards, built by speculative landlords for immigrant worker; general stores and smaller shops; and colonies of adobe huts, with thatched or corrugate iron roofs, which the very poor buil[t] for themselves on vacant sites, paying the land lord a small ground rent."¹⁸⁵ Factory workers lived in different kinds of built environment. Some lived in middle-class areas i.e., planned layouts; few had bought houses built by public sector factories; in the 'expanded village centres'- the private layouts, many workers lived in 'rambling peasant houses, with accommodation for a large joint family and cattle; sometimes in really cramped and unhealthy conditions'¹⁸⁶; and marginal number lived in planned townships around public sector factories. The townships had 'its own parks, schools, shopping centre, places of worship, hospital, sports club and cinema. Rows of identical detached houses, with small well-kept gardens, stand along quiet lanes.'¹⁸⁷ Those were the pictures of the 1960s and 1970s. Janaki Nair (2005) provides a glimpse of an expanded area of the city for workers- the industrial suburb of Rajajinagar on the edge of the city for the labourers. The modest sized planned residential sites in the industrial suburb became

the desired kind of residential spaces for the middle classes of Bangalore city till the end of the 20th century¹⁸⁸.

According to the 1981 census, revenue villages which were under the control of the village panchayats covered 10 sq.kms of the BDA area. These areas were characterized as “twilight zone”. These were engulfed by the expansion of the city due to the activities of housing cooperative societies and private agencies, slums or unauthorized clusters of houses. According to the census, “These lands cover a vast area around the city and, more than that, consist of numerous disjointed pieces lying in several villages, non-municipal towns and municipal towns including Bangalore city”.¹⁸⁹ The so called twilight zone was becoming the expanding feature of the city. It was intermeshed with both legal and illegal, and planned and unplanned forms of residential space. During the last two decades of the twentieth century, the unplanned expansions of the city had become a regular feature of the city growth.

Apart from such formations, Bangalore city was expanding into the vast tracts of agricultural lands within the green belt. With the new wave of industrialization, there was a new configuration of space owing to high-technology industrialization. As a concomitant of the IT industry there were new kinds of social spaces as domestic and leisure life changed. ‘A conspicuous class of software entrepreneurs has also emerged in Bangalore, running firms that have made them instant multimillionaires...producing a new transnational elite of well-paid “infocrats”.’¹⁹⁰ Information technology parks came up with a package of self-contained/self-sufficient civic amenities. Construction of IT parks began in 1995, and the first phase was completed in 1997. The IT park was inclusive of ‘one high-rise building for commercial space, another for office space, and a six-floor building designed for light industrial production, all faced with light-reflective glass and polished stone... high-rise apartment blocks for 764 flats, complete with swimming pools and tennis courts, and shopping areas plus a gymnasium’. The expected tenants to occupy this spaces were the ‘transnational and Indian companies engaged in research and development, education and training, testing or manufacture in information technology fields.’¹⁹¹ ‘These parks came complete with their own power, sewage, and satellite communication systems. Some offer health care facilities, stores, schools, and, of course housing. Increasingly, the only reasons to leave a park are to play golf and to go to airport.’¹⁹² IT parks were becoming isolated cities in themselves

more and more unconnected to the city. The distance between residence and work place, and other places was being reduced to nothing.

Apart from such fragments, there were other kinds of fragments in the city too. The growth of informal social areas was simultaneous and parallel to the growth of the industrial economy and its social spaces. Similarly in the latter phase of industrialization and the new economy the scale of informal economy and its social areas had expanded considerably.¹⁹³ The recent micro studies of the urbanization of few areas – Azadnagar, Valmikinagar, Mahadevapura, Yeshwantpur, etc., – located in different directions and parts of the city of Bangalore, provides a glimpse of the other side of the small scale economic organization and kind of poverty which is linked to local politics, governance, institutional arrangements, etc. Urbanization of Azad Nager – the municipal ward located in the west of Bangalore city presents a picture of the convergence of work and lived spaces of the migrant poor caste groups and religious groups. In the area, the population was employed in extensive re-cycling industry, a weaving industry, an automobile cluster, home based activities and a variety of general services. The ‘intensive economic activity’ had attracted migrant groups to settle there which further had spurred the development of general trade and services - bakery, tea shops, small food stalls, provision stores etc. ‘The local economies of its various neighbourhoods and the urbanisation thus reinforce each other.’¹⁹⁴ Residents of these areas belonged to various castes and religions. It is interesting to take note the kind of division of labour that this kind of social groupings in terms of the vocations brought about to the residents of these areas. This only reflected the hierarchies that exist elsewhere traditionally that reflected in the structuration of this place. Migrants’ identity and the status concurred with the marginal occupations and enterprises in the Azadnager area. For instance, Muslims and SC/ST population was engaged in ‘rag picking and itinerant trading’ which is low, both in terms of the price value of the raw material collected and the health hazards associated with it. The other groups such as migrants from Kerala, Marvaris from Rajasthan, etc., were involved in retail business of reprocessed goods,¹⁹⁵ which was cleaner than rag-picking. Though the occupations have changed, the hierarchy and the nature of the jobs and hazards which accompany menial jobs have not changed.

Land development and land use in Azadnagar has been changing over a period of time. Land has been developed in varied forms and distribution of free sites by the state agencies to the 'poor groups', revenue layouts, layouts developed on the village lands known as gramthana lands layout by a , co-operative housing society layout and squatter settlement. Different areas in the Azadnagar ward represent different kinds of land development. Azadnagar, Valmikinagar, Markandeya layout, Adarshnagar, Rudrappa Garden, etc., areas in the ward are characterized by gramthana layout, free sites to the poor, co-operative society layout, and revenue layouts, respectively.¹⁹⁶ Apart from that what is equally important are the land uses which characterizes the areas that urbanization have brought about. The way land is developed is a significant indicator of its use, and the land uses have been affected by immigration and their varied interests of different social groups.

Valmikinagar settlement is a part of Azadnagar Municipal ward¹⁹⁷ and it is located alongside Mysore Road in the western part of Bangalore city. In Azadnagar ward Valmikinagar layout and Azadnagar are the oldest settlements. In the pre-independence period the land was used by military. The village temple was under the control of Princely Mysore State. Valmikinagar was formed to settle 'cobblers' (Scheduled Caste group- SC) by providing free sites in the post-independence period.¹⁹⁸ Like many other neighbourhoods in the Western part of Bangalore, Valmiki Nager is now a 'highly industrialised neighbourhood and also a 'slum'.'¹⁹⁹ Due to lack of economic opportunities, the plot owners of Valmikinagar rented their houses. The demand for rented houses in western ward was due to the emergence of large number of small factories and businesses in the vicinity. Expansion of one room rent units was possible because of 'relatively large' plots. In the last three decades, Muslims settled in the area who did coolie work in the market and in the garages in the neighboring Padarayanapura. The Muslims settled in the area, bought properties in the same area.²⁰⁰

Similarly Azadnagar layout in Azadnagar ward was used by military till 1949. Over a period of time due to migration and different interests the landscape of Azadnagar changed. The agricultural land was converted into non-agricultural uses, after the Second World War. Private farmers sold their land by converting them into residential use to the migrant group, Gowdas and Devangas, and public sector

employees. The people who brought the land formed various layouts namely Rudrappa Garden, Markandeya layout, Kasturbanagar, Vanniyara colony, Vittal nagar etc. Basavanagudi Temple Trust which also had land made layout and sold sites to Brahmins. These Brahmins sold those sites later to Gowda settlers.

The Gowda community was mainly migrants from neighbouring cities and towns in the West such as Mysore, Channapatna, Madur etc. In 1950, plots were allotted to lower level employees (cooks, gardeners' etc.), In 1960 when the military outpost was closed, another 250 houses were distributed to class IV employees. Azadnagar layout today has more than 3500 such plots of varying sizes. Part of this is also developed as revenue plots. Groups here have invested in trade and small scale manufacturing after military's withdrawal. The Gowdas, in addition to trade, moved into renting and finance business. The location of the BINNY Mills in close proximity and other Mills, along with land settings that allowed for renting and diversified plot sizes attracted Devangas (ethnic weaver groups) and fuelled the growth of looms. This growth in turn, resulted in the extensive subdivision of plots and a dense development. Later, employees of public sector companies, drawn from different ethnic groups - Lingayats, Tamil also came to settle in the ward due to cheap rental options. With Gowdas coming to dominate the area, many Rajputs sold their land in the late 1980s to Marwaris (moving in to respond to the demand for capital and finance) and moved out of the area. Some of the Marvaris also started reprocessing units and also opened up several pawns broker shops. The development of recent economies such as powerlooms, plastic reprocessing has also attracted other ethnic groups - migrants from Tamilnadu and Bihar and Orissa in North India moved into the ward.²⁰¹

NOTES & REFERENCES

- ¹ M. Fazlul Hasan, *Bangalore Through Centuries*, Historical Publications, Bangalore, 1970, p. 14.
- ² Ibid: p. 1-2.
- ³ *Agraharam* is a colony of Brahmans.
- ⁴ M. Fazlul Hasan, *Bangalore Through Centuries*, p. 16-22.
- ⁵ Bangalore was under the control of different kingdoms. After the fall of Vijayanagar Kingdom, it was under the control of Sultans of Bijapur. Later it became a part of Mughal Empire. This area was bought by the Mysore ruler Chikka Deva Raja Wodeyar for 3 lakh rupees. For more details see M. Fazlul Hasan, *Bangalore Through Centuries*.
- ⁶ M. Fazlul Hasan, *Bangalore Through Centuries*, p. 5; James Heitzman, *Network City: Planning the Information Society in Bangalore*, Oxford University Press, New Delhi, 2004, p. 26-27.
- ⁷ M. Fazlul Hasan, *Bangalore Through Centuries*.
- ⁸ Narendar Pani, et al. 'Impact of Colonialism on the Economic Structure of Indian Cities: Bangalore 1800-1900', in A.K.N Reddy and Vinod Vyasalu, eds, *Essays on Bangalore*. Bangalore: Karnataka State Council for Science and Technology, 1985, p. 2.
- ⁹ Narendar Pani, et al. 'Impact of Colonialism on the Economic Structure of Indian Cities: Bangalore 1800-1900'. In A.K.N Reddy and Vinod Vyasalu, eds, *Essays on Bangalore*. Bangalore: Karnataka State Council for Science and Technology, 1985, p. 3.
- ¹⁰ Ibid: p. 2.
- ¹¹ M. Fazlul Hasan, *Bangalore Through Centuries*, p. 88-89.
- ¹² Ibid: p. 7.
- ¹³ Report of the Bangalore Development Committee 1954: 4-5.
- ¹⁴ Ibid: p. 5.
- ¹⁵ "Origin of the Civil Station: After the defeat and death of Tippu Sultan, some British troops were garrisoned in Seringapatam. But the climate of Seringapatam was so unhealthy that they had to be transferred to a healthier station. The Madras Government (then in control of the Provincial Army) selected some lands near the City of Bangalore, and approached His Highness Sri Krishnaraja Wodeyar Bahadur III for permission to occupy them. This was readily granted and a vacant site near the village of Ulsoor was given to them for the accommodation of British Troops. It was occupied in 1807 by two British Regiments, and barracks and other military buildings were soon erected on it. A civil population, which had been attracted by the trade and other opportunities for public and private employment offered by the presence of British troops, began to settle near the military lands. Grants of lands for building purposes were made to civilian applicants by the Mysore "Sirkar". The administration of the area was not affected by the presence of the British troops. Both the Military lands (which might be regarded as the Civil and Military Station proper) and the Civil Station remained under the authority of the State. In the Civil and Military Station and Civil Station, all persons not belonging to the Military were treated as subjects of the Mysore State. They paid taxes to the Mysore State. They paid taxes to the Mysore Government and their disputes, civil and criminal, were adjudicated upon by tribunals set up by that

Government. This arrangement remained in force till the area was made over to the British Government in 1881” (ibid: pp. 4-5).

¹⁶ Ibid: pp. 4-5; M. Fazlul Hasan, *Bangalore Through Centuries*, p. 7 & 127.

¹⁷ British controlled only the military area to begin with after the restoration of Mysore to the Wodeyar family. In 1831, British took control of the whole of the Mysore territory for various reasons. Till 1881, Bangalore was totally under the control of British, the then Commissioner was appointed to head the administration. Again in 1881, when Mysore territory was restored back to Mysore royal family, the whole of Bangalore’s Civil and Military Station area jurisdiction was retained with the British until 1947.

¹⁸ Heitzman, James. (2004) *Network City*, p. 29.

¹⁹ Ibid: pp. 29-30.

²⁰ *Census of India, 2001, Provisional Population Totals, Rural-Urban Distribution of Population, Paper-2 of 2001, Series-30*, Director of Census Operations, Karnataka, pp. 14-15.

²¹ James Heitzman, *Network City*, pp. 30-31.

²² M. Fazlul Hasan , *Bangalore Through the Centuries*, p. 186 & James Heitzman, 2004, *Network City*, p. 31.

²³ Alternative core developed as a power center and also as a culturally different space.

²⁴ Smriti Srinivas 2004, *Landscapes of Urban Memory*, Orient Longman, Hyderabad, p. 47.

²⁵ Ibid: p. 47.

²⁶ The background of this legislation was – the economic exchange logic of user should for a good or service wilfully – which was conceived and introduced by British Administrators. Hasan found that - “Actually, it was the financial need of the time which brought about the enactment of municipal laws. Even as far back as the early part of the 19th century, successive Finance Ministers of Government of India always laid stress on the fact that services like public health and education benefited the inhabitants of the particular localities only, and, therefore, in the fitness of things, the expenditure incurred on them should be met by taxing them. Thus was born the idea of local finances and services which in the longer run became the basis for the working of the local bodies...The Bengal Act X of 1842 was the first enactment of this kind. Its provisions were meant for better public health of towns other than Calcutta. But, this Act, had its inherent weakness. So, it was repealed by the Act XXVI of 1850, which could be introduced in any town provided the inhabitants were desirous of ‘making better provisions for repairing, cleaning, lighting and for prevention of nuisances or for improving the town in any manner’. A significant feature of this Act was that its provisions were not to be put into force without the consent of the people and that it should be given effect to only after a fullest and most careful enquiry” (Hasan 1970: 176).

²⁷ Hasan, *Bangalore Through Centuries*, p. 176.

²⁸ Ibid: pp. 176-178.

²⁹ Ibid: p. 178. This regulation indicates the continuation of the municipal reforms that the British introduced, which was to regulate and discipline city into a particular spatial formation which would adhere to laws for its better existence.

³⁰ Hietzman, *Network City*, p. 125.

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- ³¹ Hasan, *Bangalore Through Centuries*, p. 179.
- ³² Heitzman, *Network City*, p. 31.
- ³³ Ibid: p. 33.
- ³⁴ Sundara Rao, Ba. Na., *Bengalurina Ithihasa* [Bangalore's History], (Vasant Literary Library Series Bangalore, 1985, pp. 72-73).
- ³⁵ Hasan, *Bangalore Through Centuries*, p. 180.
- ³⁶ Heitzman, *Network City*, p. 35.
- ³⁷ *Census of India 2001*- Map 8, p. 41.
- ³⁸ This classification is done by the researcher based on the figures given on the trend of the size of the extensions over a period of time.
- ³⁹ Report of the Bangalore Development Committee.
- ⁴⁰ Janaki Nair, *Miners and Millhands: Work, Culture and Politics in Princely Mysore*, Sage Publications, New Delhi. 1998, p. 18.
- ⁴¹ Ibid: p. 18. Names of these industrial units are mentioned in different ways in different texts. K. N. Venkatarayappa, *Bangalore: A Socio-Ecological Study* (Bombay: Bombay University Press, 1957), p. 57- In this work, industrial units are mentioned as Bangalore Woolen, Cotton and Silk Mills Company, Ltd., and Mysore Spinning and Manufacturing Company Ltd. They are mentioned as Maharaja of Mysore Spinning and Manufacturing Mills and Bangalore Woollen and Cotton and Silk Mills, Ltd., in R. L. Singh, *Bangalore: An Urban Survey* (Varanasi: Tara Publications, 1964), p. 51; etc.
- ⁴² K. N. Venkatarayappa, *Bangalore: A Socio-Ecological Study* p. 57; Nair, *Miners and Millhands*, p. 18.
- ⁴³ Heitzman, *Network City*, p. 38.
- ⁴⁴ Ibid. p. 39.
- ⁴⁵ Nair, *Miners and Millhands*, pp. 18-19.
- ⁴⁶ James Heitzman, *Network City*, p. 38.
- ⁴⁷ Nair, *Miners and Millhands*, p. 18.
- ⁴⁸ Ibid: p. 18.
- ⁴⁹ Ibid: p. 18.
- ⁵⁰ Singh, *Bangalore: An Urban Survey*, p. 53.
- ⁵¹ Nair, *Miners and Millhands*, p. 18.
- ⁵² Ibid: p. 19.
- ⁵³ Ibid: p. 19.
- ⁵⁴ Ibid: p. 216.
- ⁵⁵ Ibid: p. 217.
- ⁵⁶ Ibid: p. 217.
- ⁵⁷ Ibid: p. 217 & p. 220.
- ⁵⁸ Ibid: p. 220.
- ⁵⁹ Ibid: p. 220.
- ⁶⁰ Ibid: pp. 18-19.
- ⁶¹ Ibid: p. 222.

⁶² Ibid: p. 223.

⁶³ Binny Mills resorted to excuses like ‘financial stringency in the post-First World War Period, and ‘poor trade’ in the ‘Depression years’ on the one hand, and, on the other hand it came up with the argument that- “expansion of *mills* rather than housing quarters ‘would not only add to the welfare and well-being of our workpeople when actually at work, but make it easier for us to provide the means for a progressive housing policy’.” When government lands were sought for acquisition for the expansion of mills, Government of Mysore held Binny Mills to stand by its commitment to build houses for its workers (Nair 1998: 223).

⁶⁴ Ibid: p. 223.

⁶⁵ *Census Handbook, Bangalore District, 1951*: p. 4.

⁶⁶ *Census of India, 1961, Mysore State, District Census Handbook, Bangalore District*: p. 12.

⁶⁷ *Census of India, 1971, Mysore State, District Census Handbook, Bangalore District*: p. 8.

⁶⁸ K. S. Rame Gowda, *Bangalore: Its Growth & Development*, Silver Jubilee Souvenir, Bangalore City Corporation, 1974, p. 119.

⁶⁹ *Census of India, 1971, Mysore State, District Census Handbook, Bangalore District*: p. 8.

⁷⁰ Decline in migration from other states has been attributed to the ‘growing regionalism’ in city. Johnson Samuel & M. Lingaraju, *Migrants in Bangalore*, Working Paper, Institute for Social and Economic Change, 1989, p. 15); Holmstorm (1976)

⁷¹ V.L.S. Prakasa Rao & V. K. Tewari, *The Structure of an Indian Metropolis- A Study of Bangalore*, Allied Publishers Private Limited, New Delhi, 1979, p. 274

⁷² Johnson & Lingaraju 1989, *Migrants in Bangalore*, p. 15.

⁷³ Ibid: p. 20.

⁷⁴ Report of the Bangalore Development Committee 1954, p. 14-15.

⁷⁵ Singh, 1964, *Bangalore: An Urban Survey*, p. 81.

⁷⁶ John Stremlau, *Dateline Bangalore: Third World Technopolis*, Journal of Higher Education, Vol. 19 No. 4 Autumn 1996.

⁷⁷ Mark Holmstrom, *South Indian Factory Workers- Their Life and Their World* (London/New York/Melbourne: Cambridge University Press, 1976), p. 9.

⁷⁸ Heitzman, *Network City*, p.42.

⁷⁹ Holmstrom, *South Indian Factory Workers*, p. 9.

⁸⁰ Ibid: pp. 9-10.

⁸¹ Large scale public sector units produced aircraft, telephones, machine tools, watches, electrical and electronic equipment and earthmovers (Singh 1964: 55-57 & 133-139).

⁸² Ibid: pp. 133-139.

⁸³ James Heitzman, ‘Corporate Strategy and Planning in the Science City- Bangalore as ‘Silicon Valley’’, *Economic and Political Weekly*, Vol., XXXIV No. 5, 1999.

⁸⁴ Holmstrom, *South Indian Factory Workers*, p. 14-17.

⁸⁵ Janaki Nair, *The Promise of the Metropolis- Bangalore’s Twentieth Century*, (New Delhi: Oxford University Press, 2005), p. 81-82.

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- ⁸⁶ Gowda, *Bangalore: Its Growth & Development*, p. 119.
- ⁸⁷ Ibid: p. 119.
- ⁸⁸ Ibid: p. 119.
- ⁸⁹ *Census of India 1971, Series-14, District Census Handbook, Bangalore District Part X-A: Town and Village Directory*, p. 4.
- ⁹⁰ Gowda, *Bangalore: Its Growth and Development*, p. 119.
- ⁹¹ N. Baskara Rao and M. Johnson Samuel, 1985, *Growth of Bangalore: Population and Industrialisation*, Institute for Social and Economic Change, Bangalore, p. 30.
- ⁹² Ibid: p. 31.
- ⁹³ *Census of India 1971, Series-14, District Census Handbook, Bangalore District Part X-A: Town and Village Directory*, pp. 8-11.
- ⁹⁴ Activities and Achievements of C.I.T.B since its inception, i.e., From 26-1-1945 to 6-6-1973, pp.4-6.
- ⁹⁵ Activities and Achievements of C.I.T.B, p. 8.
- ⁹⁶ Report of the Bangalore Development Committee: p. 39.
- ⁹⁷ An area identified as a 'slum' which is in conformity with the official definition of the times.
- ⁹⁸ Venkatarayappa, *Bangalore- A Socio-Ecological Study*, p. 127.
- ⁹⁹ For more details on the occupations and their classifications, and list of kinds of enterprises of the times see Singh 1964; and Holmstorm 1976.
- ¹⁰⁰ Singh, *Bangalore: An Urban Survey*, pp. 78-79.
- ¹⁰¹ The slum chosen for the study was Muni Venkatappa Garden. The slum had 220 families of which 139 families were part of the sample of the study. The sample had 113 families of Adi-Dravida community, 3 families of Adi-Karnataka, 8 families of Harijans, 7 families of Mulims, 6 families of Christians and 2 families of Naidus (Singh 1964: 78).
- ¹⁰² Administration Report, Corporation of the City of Bangalore, 1959-60: xiii.
- ¹⁰³ Singh, *Bangalore: An Urban Survey*, p. 76.
- ¹⁰⁴ Administration Report, Corporation of the City of Bangalore, 1959-60: xiii.
- ¹⁰⁵ Ibid: 163.
- ¹⁰⁶ Administration Report, Corporation of the City of Bangalore, 1964-65: 336-337.
- ¹⁰⁷ Administration Report, Corporation of the City of Bangalore, 1965-66: xi.
- ¹⁰⁸ Administration Report, Corporation of the City of Bangalore, 1967-68: 198.
- ¹⁰⁹ Ibid: xii.
- ¹¹⁰ Activities and Achievements of C.I.T.B, pp. 29-30.
- ¹¹¹ Ibid: pp. 38-39.
- ¹¹² Revenue layout is created by putting agricultural land to non-agricultural use which is unauthorized.
- ¹¹³ Government initiated a programme called 'Urban Community Development Project' in selected areas of Bangalore City. Padarayanapura was one among them. The programme through its study of the area has construed an integrationist view of the place. Though it points out at the existing social realities like caste, religious, politics, economic, etc., its main focus was to take note of its ecologies and civic inadequacies. "The objective of starting the Project was to bring about in the selected areas:

changes in the skills and attitudes of the people from the traditional and static to progressive and rational. to discourage unhealthy social attitudes and practices.

to work for acceptance and practice of healthy democratic principles and methods.

to develop among the residents a deep and abiding sense of civic consciousness and responsibility, pride in the area in which they live and a willingness to participate actively in community affairs, to promote better conditions of life by bringing about a healthy environment by good neighbourliness.

to train in group activities in order to promote latent talents during leisure hours.

to inculcate self-help and self-reliance in making community life fuller and richer.

to recognise problems of the area, think out solutions, assign priorities, survey and pool together internal resources to implement decided programmes which are not to supplant but be supplementary to the normal programmes of the Government and the local bodies.

to create healthy rapport with the agencies of the Government and local bodies in order to arrange effective developmental and welfare services to the area” (Administration Report, Corporation of the City of Bangalore- 1968-69: 318-346 & 1969-70: 203-222).

¹¹⁴ Administration Report, Corporation of the City of Bangalore, 1969-70: 203.

¹¹⁵ Ibid: 204-205.

¹¹⁶ Though the report is celebrating ‘cosmopolitanism’ the report itself is sceptic.

¹¹⁷ Administration Report, Corporation of the City of Bangalore, 1969-70: 205.

¹¹⁸ Ibid: 208-209.

¹¹⁹ Urban Community Development Project.

¹²⁰ Administration Report, Corporation of the City of Bangalore, 1969-70: 223.

¹²¹ Ibid: 230.

¹²² The report says that- “Caste system is in vogue but people do not express it explicitly. However the scheduled caste population is living separately from the general community. There is no instance of any communal clashes in the area. During community festivities all the castes participate freely.” (ibid: 224)

¹²³ Ibid: 223-224.

¹²⁴ Ibid: 225-226.

¹²⁵ Ibid: pp. 74-75.

¹²⁶ V.L.S. Prakasa Rao & V. K. Tewari 1979, *The Structure of an Indian Metropolis- A Study of Bangalore*, Allied Publishers Private Limited, New Delhi, pp. 272-273.

¹²⁷ Singh, *Bangalore: An Urban Survey*, p. 32.

¹²⁸ Prakasa Rao & Tewari, *The Structure of an Indian Metropolis*, pp. 273-74.

¹²⁹ Ibid: p. 273.

¹³⁰ Ibid: p. 274.

¹³¹ Administration Report, Corporation of the City of Bangalore, 1968-69: iii.

¹³² Both public and private sector industries connected to telematics and the information technology underwent the relatively faster evolution and growth in the high technology sector within the given liberalized atmosphere in Bangalore City. The case histories and profiles of various individual

entrepreneurs and enterprises and efforts of a large scale public sector unit tell the story. For instance, the Indian Telephone Industries (ITI) – a public sector unit – had to expand its operations through collaborations with the companies abroad to upgrade its technologies and the organizational policies to stay in the business than the ‘job creation’ which was one of the functions with other key functions viz., ‘self-reliance’, of the yesteryears (Heitzman 1999: p. PE-8). Many private companies in collaboration with foreign companies started production and marketing computers. In that process, Wipro and Infosys were the emerging leaders in the specialized field of computer systems and software production in Bangalore. These private enterprises drew their managerial and technological expertise from India’s public sector enterprises or from foreign firms in the United States or Europe. Around the same time the much highlighted collaboration was that of India’s Videsh Sanchar Nigam Limited (VSNL) and the US-based Texas Instruments to establish a software production centre in Bangalore city and an agreement that took place between the Australia and New Zealand Banking group (ANZ) and Prime Minister Rajiv Gandhi in a license to purchase Grindleys Bank by the former in exchange of the software technologies to the latter which eventually led to the opening of an office in Bangalore (Heitzman 1999: PE-7; 2004). “The transition to a new paradigm was being completed in the 1990s, but it is clear from the cases examined here that it was underway by the early 1980s. The fate of ITI demonstrates in extreme form the impact of this transition on the public sector behemoths, as an inability to innovate or to explore new markets doomed the company to live on borrowed time until quite late, only to experience the fall out from market erosion and a bloated corporate culture by 1995...the overall result of these changes was job loss for employees in a downsizing phase and slow-down or outright shrinkage in subcontracting opportunities for small and medium firms. There is little doubt that the big public sector companies will survive and...grow at acceptable rates in the near future, but it is likely that their overall impact on the economy of the Bangalore metropolitan region will decline. This means that Bangalore must look elsewhere for models of growth and employment generation” (Heitzman 1999: p. PE-8). The new phase of industrialization within the changing circumstances on the one hand was introducing new technologies through foreign tie-ups and eventual transfers and new products – electronics hardware, software, information – into the domestic market and at the same time exporting the services and labour. On the other hand was the efforts of individual entrepreneurs with small amounts of capital have expanded their business manifold by entering into new fields, which increased their revenues than the employment generated (Heitzman 1999: PE-4 – PE-7).

¹³³ Madon 1997; Hietzman, 1999, 2004; Parthasarathy 2004

¹³⁴ *Census of India 1981, Series-9 Karnataka, District Census Handbook-Bangalore District, Parts XIII-A & B, Village & Town Directory, Village & Townwise Primary Census Abstract, pp.502-507.*

¹³⁵ *Census of India 1981, Series-9 Karnataka, District Census Handbook-Bangalore District, pp. 72-75 & pp. 83-85*

¹³⁶ Rao & Johnson Samuel, *Growth of Bangalore: Population and Industrialization*, p. 1.

¹³⁷ Ravindra, A. 1992, *Metropolitan Bangalore- A Management Perspective*, The Times Research Foundation, Calcutta, p. 26.

¹³⁸ Johnson Samuel & Lingaraju 1989, *Migrants in Bangalore*, p. 12.

¹³⁹ Ibid: p. 15.

¹⁴⁰ Ravindra, *Metropolitan Bangalore*, p. 26.

¹⁴¹ The total number of migrants were 1099200 of which males were 582300 and females were 516900. Among male migrants the reasons for migration were employment 51%, education 8%, family moved to city 22%, other reasons 18%, and marriage 1% and among female migrants the reasons for migration were employment 6%, education 4%, family moved to the city 36%, marriage 38% and other reasons 16% (Samuel & Lingaraju 1989: 20).

¹⁴² Ibid: p. 20.

¹⁴³ *Census of India, 1991, District Census Hand Book*, Bangalore, Series-11 Karnataka, Part XII-A, Bangalore Village & Town Directory, Director of Census Operations, Karnataka, p. ix.

¹⁴⁴ *Census of India, 2001, Provisional Population Totals- Rural-Urban Distribution of Population*, Series-30 Karnataka, Paper 2 of 2001, Director of Census Operations, Karnataka, p. 34.

¹⁴⁵ *Census of India, 1991, District Census Hand Book*, Bangalore, p. xi.

¹⁴⁶ *Census of India, 2001, Provisional Population Totals*, p. 47.

¹⁴⁷ Ibid: p. 22.

¹⁴⁸ In 1991 villages Baiyappanahalli-Vimanapura, Banasvadi, Benniganahalli, Byataguttepalya, Byatarayanapura, Dasarahalli, Geddalalahalli, Kacharakannahalli, Kammagondanahall, Kaval Bairasandra, Koramangala, Laggere, Mahadevapura, Nagavara, Pinya, Saneguruvanahalli and Vijanapura were added; and in 2001- Herohalli, Pattanagere, Uttarahalli, Bommanahalli, Konankunte, Gottikere, Kothnur and Hunasamaranahalli were added to Bangalore Urban Agglomeration(Census of India 2001: 19).

¹⁴⁹ *Census of India, 1991, District Census Hand Book*, Bangalore, Series-11 Karnataka, Part XII-B, Village & Townwise, Primary Census Abstract, Director of Census Operations, Karnataka.

¹⁵⁰ Bangalore Master Plan – 2015 (2007), Vision Document, Volume I, Government of Karnataka, Bangalore Development Authority, http://www.badbangalore/Vision_Document_RMP2015_BDA.pdf (accessed on November 14, 2007), p. 9.

¹⁵¹ *Census of India 1981, Series-9 Karnataka, District Census Handbook-Bangalore District*, Parts XIII-A & B, *Village & Town Directory, Village & Townwise Primary Census Abstract*, p. xxxviii.

¹⁵² Nair, *The Promise of the Metropolis*, p. 83.

¹⁵³ Heitzman, *Network City*, p. 188. For more details about the aims and strategies of the planners for such a development process to take place, see James Hietzman, *Network City*, pp. 188-211.

¹⁵⁴ Ibid: pp. 188-189.

¹⁵⁵ Ibid: p. 188.

¹⁵⁶ In the initial phase that is right from 1950s through the 1970s India had few computers and technical experts. India was totally dependent on the foreign corporation IBM for the product and the services, though Atomic Energy Commission had designed an 'indigenous minicomputer'. 'At that time, IBM balked at providing high level computers to the Indian government, even after a personal request from Mrs. Gandhi, highlighting the nation's strategic dependence and prompting the government to strengthen indigenous production. In 1974, the Foreign Exchange Regulation Act required all foreign firms to hold not more than 40 per cent of equity in a company operating within India. Unwilling to jeopardize

proprietary knowledge, IBM withdrew from the Indian market in 1977 along with other transnational corporations such as Coca Cola.’(Heitzman 2004:179) Under these circumstances Government set up Computer Maintenance Corporation (CMC) in 1976 with its own research and development nerve center at Hyderabad and in 1978 Hindustan Computers limited was established to trade in its own products-mainframes and minicomputers. There were also efforts by the private sector companies which were making forays into the field of computers. It is said that- ‘Roles did exist, however, for private enterprises. Tata Consultancy Services (TCS), for example, began in 1968 to run computerization for the Tata family of companies, and in the early 1970s they began to expand into software consultancy, obtaining their first external contract in 1973. Transnational corporations could run their own assembly operations at export processing zones, beginning with the establishment of the Santa Cruz Export Processing Zone in Mumbai in 1974 and expanded through zones set up later in Chennai, Falta (West Bengal),...The insulation of the Indian market from foreign competition worked well enough within an environment of gradual technological innovation. The department of electronics (DOE), operational by 1972, was still participating with other ministries in 1982-83 in the production of a ‘demand profile’ for computers and peripherals up to 1990 as part of Five Year Plans.’ (ibid: 179-180).

¹⁵⁷ *Census of India 1981, Series-9 Karnataka, District Census Handbook-Bangalore District, Parts XIII-A & B, Village & Town Directory, Village & Townwise Primary Census Abstract, p. 2.*

¹⁵⁸ Ibid: p. 2. For more details about the public sector industries and the ancillaries it supported, and the range of products produced *see also pp. xxxviii-xxxix.*

¹⁵⁹ Nair, *The Promise of the Metropolis*, p. 83.

¹⁶⁰ Ibid: p. 83.

¹⁶¹ Heitzman, *Network City*, p. 180.

¹⁶² Balaji Parthasarathy, *India’s Silicon Valley or Silicon Valley’s India? Socially Embedding the Computer Software Industry in Bangalore*, Volume 28.3 September 2004, International Journal of Urban and Regional Research, p. 672.

¹⁶³ Heitzman, *Network City*, pp. 188-189.

¹⁶⁴ Heitzman, 2004, *Becoming Silicon Valley*, Seminar.

¹⁶⁵ Ibid: pp. 184-85. First, ‘the main line of analysis, from a US business perspective’- the consultants for USAID pointed to the lag in innovation (which is generally formulated as the function of competition) due to ‘India’s long period of relative economic isolation and protectionism’ to develop its industry. They suggested the ‘composite regional model’ with ‘universal pre-conditions and characteristics’ for the technological development in realizing ‘Silicon Valley’ in Karnataka. The prerequisites included- ‘a strong university, linkages between research institutions and the industrial sector, a critical mass of talent and leadership within a market-driven and competitive environment, an ‘information base’ enabling fast and coordinated action, and venture capital.’ In addition to this another team of consultants ‘recommended international airport and the application of database management systems with GIS for planning alongside organization change as the recipe for upgrading infrastructure and organization.’ This overarching vision were to be, in practice, diversify technological development into many fields-

software, telecommunications, computers, biotechnology, pharmaceuticals, transport, etc. (Heitzman 2004: 184-85)

¹⁶⁶ Ibid: p. 185.

¹⁶⁷ Liberalization was a series of reforms initiated by the Central Government of India. It happened in the context of crisis ridden economy with- huge public deficits, technological backwardness, chronic fall in growth rates of Gross National Product, severe fall in the foreign exchange reserves and on top of it Gulf War precipitated the crisis. Under these circumstances government was 'forced to seek financial assistance from the International Monetary Fund (IMF).' After all that, what followed was the 'structural adjustment' – a relative shift from a 'planned economy' to a 'competitive economy' – giving way to series of reforms in that direction. One could take note, in brief, some of the features of 'New Economic Policy' and the 'New Industrial Policy' which was radically different from the policy of 'protectionism'- "Import substitution disappeared as a prime goal. Exports that would bring in foreign exchange became a priority. Private Indian enterprises would carry the burden for expanding the economy by becoming more competitive in transnational markets, acquiring current technologies, and creating more tie-ups with foreign corporations. The government eased regulations on the purchase of foreign technology, and granted permission for foreign investors to hold up to 51 per cent of equity shares in companies operating within India, with equity up to 74 per cent possible in some industrial areas such as power generation and transportation infrastructure. Only six out of seventeen areas remained the reserve of public sector units, and subsidies that had been shoring them up would phase out. Restrictions on location of physical plant were removed, except for rules relating to environmental impact. Limitations on large Indian business houses were eliminated, as mergers, acquisitions, and divestments of a part of a business were no longer subject to government approval. There was a reduction in corporate taxes, excise taxes, and tariff duties." (Heitzman 2004: 187) These changes in the policy brought about far reaching changes in the way new wave of high-technology industrialization was initiated and the way it was spatialized.

¹⁶⁸ Stremlau 1996; Madon 1997; Heitzman 1999; Heitzman, 2001; Heitzman 2004;

¹⁶⁹ Heitzman, *Network City*, p. 190.

¹⁷⁰ Ibid: p. 190.

¹⁷¹ Ibid: p. 207.

¹⁷² Ibid: p.200.

¹⁷³ Heitzman, 2001, *Becoming Silicon Valley*.

¹⁷⁴ Ibid.

¹⁷⁵ Ibid.

¹⁷⁶ Ibid.

¹⁷⁷ Holmstrom, *South Indian Factory Workers*, p. 14.

¹⁷⁸ Rao and Johnson Samuel, *Growth of Bangalore: Population and Industrialisation*, p. 31.

¹⁷⁹ Heitzman, *Network City*, p. 173.

¹⁸⁰ Sudarshan P, 1998, *Relocation of Slum Dwellers: A Case Study of Sanjay Gandhi Nagar in Bangalore*, M. Phil., dissertation, University of Hyderabad, Hyderabad, p. 81; Nair, *The Promise of the Metropolis*, p. 258

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- ¹⁸¹ Heitzman, *Network City*, p. 173.
- ¹⁸² Solly Benjamin & Bhuvanewari, R., 2001, *Democracy, Inclusive Governance and Poverty in Bangalore*, http://www.idd.bham.ac.uk/research/Projects/urbangovernance/resource_papers/stage2_casestudies/wp26_Bangalore.pdf, access on 3/11/2004
- ¹⁸³ Heitzman, *Network City*, p. 173.
- ¹⁸⁴ Holmstrom, *South Indian Factory Workers*, p. 74.
- ¹⁸⁵ Ibid: p. 74.
- ¹⁸⁶ Ibid: pp. 74-75.
- ¹⁸⁷ Ibid: p. 75.
- ¹⁸⁸ Nair, *The Promise of the Metropolis*, p. 89.
- ¹⁸⁹ *Census of India 1981, Series-9 Karnataka, District Census Handbook-Bangalore District, Parts XIII-A & B, Village & Town Directory, Village & Townwise Primary Census Abstract*, p. 967.
- ¹⁹⁰ Stremlau, 'Dateline Bangalore', p. 552.
- ¹⁹¹ Heitzman, *Network City*, p. 191.
- ¹⁹² Stremlau, 'Dateline Bangalore', p. 556.
- ¹⁹³ Benjamin & Bhuvanewari, *Democracy, Inclusive Governance and Poverty in Bangalore*, http://www.idd.bham.ac.uk/research/Projects/urban-governance/resource_papers/stage2_casestudies/wp26_Bangalore.pdf, 3/11/2004.
- ¹⁹⁴ Ibid: p. 49.
- ¹⁹⁵ Ibid: pp. 55-56.
- ¹⁹⁶ Ibid: p. 60.
- ¹⁹⁷ Ibid: p. 49.
- ¹⁹⁸ Ibid: p.63.
- ¹⁹⁹ Ibid: pp. 30-31.
- ²⁰⁰ Ibid: p. 64.
- ²⁰¹ Ibid: pp. 64-65.