

## Chapter II

### Demography

#### A. Growth of Population in CMA

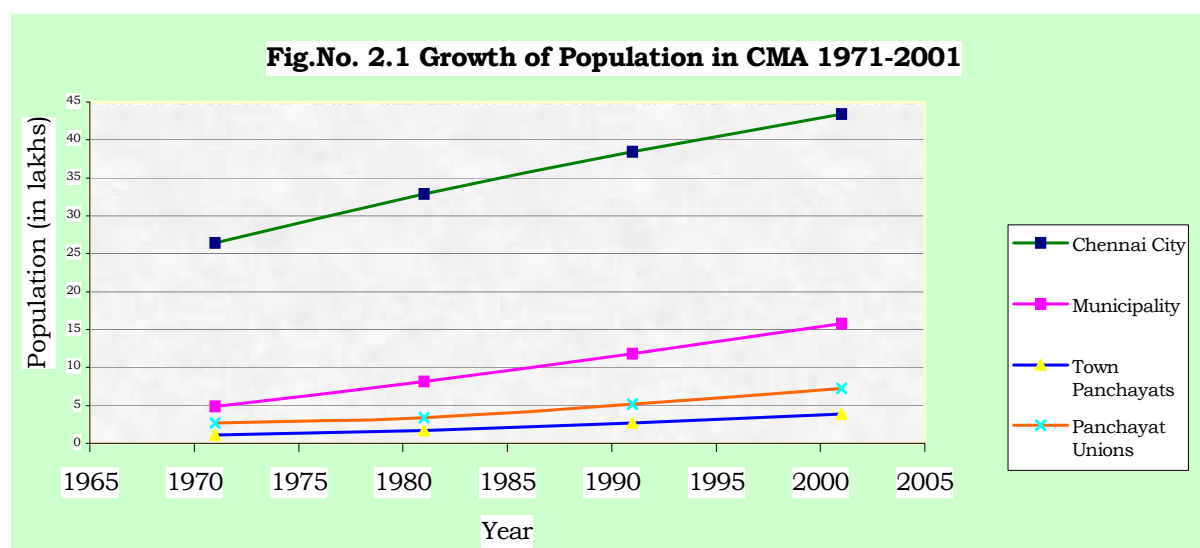
Chennai has a long history since 1639. The Chennai City Corporation was constituted in 1798. The City extending over an area of 68 sq.km in 1901 had a population of 5.40 lakhs. Since 1941, it had grown rapidly and the growth of population in Chennai City and other local bodies within CMA is given in the Table below: -

**Table No. 2.1: Growth of Population in CMA**

Sl. No.		Population (in lakhs)				Annual Rate of growth (%)			Area Sq. Km.	Gross Density per Ha. in 2001
		1971	1981	1991	2001	71-81	81-91	91-01		
1.	Chennai City	26.42	32.85	38.43	43.43	2.20	1.58	1.23	176	247
2.	Municipalities	4.84	8.14	11.84	15.81	5.24	3.80	2.91	240	66
3.	Town Panchayats	1.11	1.64	2.71	3.86	4.43	4.94	3.62	156	25
4.	Village Panchayats	2.67	3.38	5.20	7.31	2.40	4.38	3.58	617	12
5.	CMA Total	35.04	46.01	58.18	70.41	2.76	2.37	1.93	1189	59

Source: Census of India, and CMDA

2.2 The Municipalities and Town Panchayats have experienced higher growth rate than that of the City. The density pattern indicates that the City has the highest gross density of 247 persons/ha, whereas the average gross density in CMA is only 59 persons/ha. The gross density in most of the municipal areas and Town Panchayats is very low, indicating that these areas offer high potential for growth and would be the receiving residential nodes in future.



## B. Birth & Death Rates

2.3. The registered birth rates in Chennai City in 1981 were 31.20 and varied from 38.6 to 24.06 during 1981-91 and have reduced to 22.62 in the year 2003. Similarly the death rate also reduced to a considerable extent from 9.20 in 1981 to 8.01 in 2003. The rate of natural increase declined from 22.00 in 1981 to 14.61 in 2003.

## C. Migration

2.4. The cosmopolitan nature of Chennai is a result of its attractiveness to migrant groups from all over India. Migrants came not only predominantly from the surrounding Tamil and Telugu speaking areas, but also from southern and northern India. These migrant groups from other states have made their distinctive mark on the patterns of residential and social organisations within this Chennai Metropolis.

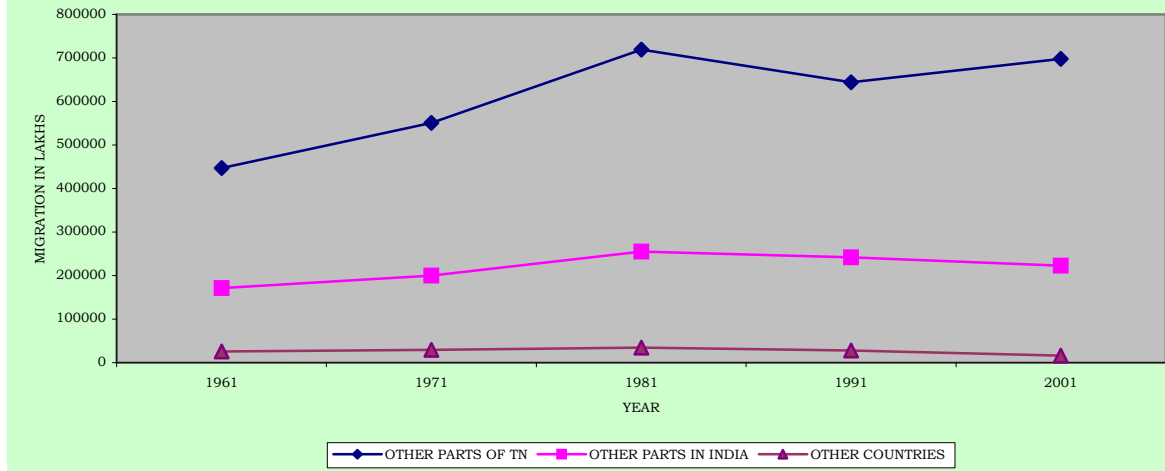
2.5. Chennai is a city of migrants like any other metropolitan city in India. According to 2001 Census, migrants to Chennai City from other parts of Tamil Nadu State constitute 74.5 %, and the table below shows a downward trend in the migration to the City from 37.24% in 1961 to 21.57% in 2001. Migrants from other parts of India constitute 23.8% and the remaining 1.71 % of the migrants is from other countries.

**Table 2.2: Migration to Chennai City, 1961-2001 (in Lakhs)**

Year	Total Population	Total migrants to the City from							Un- classified	Total migrants in lakhs	% of Total Migrants to total population
		Other parts of Tamil Nadu		Other parts of India (Excluding Tamilnadu)		Other Countries					
		No. in lakhs	%	No. in lakhs	%	No. in lakhs	%				
1961	17.29	4.47	69.45	1.71	26.60	0.25	3.90	--	6.44	37.24	
1971	24.69	5.51	70.61	2.00	25.63	0.29	3.76	--	7.80	31.59	
1981	32.84	7.19	71.28	2.55	25.31	0.34	3.41	--	10.08	30.70	
1991	38.43	6.44	70.51	2.42	26.47	0.28	3.01	0.04	9.18	23.90	
2001	43.44	6.98	74.49	2.23	23.80	0.16	1.71		9.37	21.57	

Source: Census of India, 1961, 1971, 1981, 1991 & 2001 Social and Cultural Table

Fig.No. 2.2 MIGRATION TO CHENNAI CITY 1961- 2001



**Table 2.3: Migration to Chennai Urban Agglomeration (CUA)\* - 2001**

Sl. No.	Place	Males	Female	Total	% to Total
1.	Total Migrants	8,55,103	7,53,196	16,08,299	
2.	Elsewhere in the district of enumeration	1,38,235	1,24,844	2,63,079	16.35
3.	Other Districts of the State	5,49,214	4,71,981	10,21,195	63.50
4.	Outside the State	1,55,431	1,45,307	3,00,738	18.70
5.	Outside India	25,360	22,360	23,287	1.45

Source: Census India, Tamilnadu Migration Tables-2001.

\* CUA comprises Chennai City, 14 Municipalities, 20 Town Panchayats and 21 Village Panchayats around Chennai City as defined in the Census of India, 2001. Its extent is 633 sq.km.

2.6. The composition of growth in Chennai City is given in the table below.

**Table 2.4: Composition of Growth - Chennai City**

1	Population in the reference year	32,84,622 ( in 1981)	38,43,195 (in 1991)
2	Natural increase	6,40,370 (1981-91)	5,82,745 (1991-01)
3	In-migration	9,18,298 (1981-91)	9,37,111 (1991-01)
4	Jurisdiction change	- (1981-91)	- (1991-01)
5	Sum of (1) to (4) above	48,43,290	53,63,051
6	Population in the next reference year	38,43,195 (in 1991)	43,43,645 (in 2001)
7	Net increase in population	5,58,573 (1981-91)	5,00,450 (1991-01)
8	Out-Migration (arrived)	10,00,085 (1981-91)	10,19,406 (1991-01)

2.7. An interesting and important fact found is the out-migration from Chennai City to its suburbs and other areas. The population of the Chennai City in 1991 was 38.43 lakhs which include 9.18 lakh migrant population and natural increase of 6.40 lakh (for 1981-91) population; the net population increase works out to only 5.59 lakhs which shows that there was a net out-migration of 10 lakhs (30.4% of 1981 population) from City (during 1981-1991). Similarly, an out-migration of 10.19 lakhs (26.5% of the 1991 population) is noted during 1991-2001. Though there were large-scale building construction activities noted during the above periods, the out-migration of resident population from Chennai City proves that considerable conversion of residential premises into non-residential mostly for office, shopping, hotels and other commercial purposes took place; this trend will continue in this metropolis.

#### **D. Sex Ratio**

2.8. Sex ratio is denoted by number of females per 1000 males. The sex ratio in CMA increased from 936 in 1991 to 956 in 2001. The sex ratio in Chennai City and CMA are presented in Table below.

**Table 2.5: Sex Ratio in Chennai City & CMA**

<b>Year</b>	<b>Chennai City</b>	<b>CMA</b>	<b>Urban TN</b>
1961	901	909	992
1971	904	907	978
1981	934	927	977
1991	930	936	972
2001	957	956	987

Source: Census of India

#### **E. Literacy**

2.9. Census figures indicate that the literacy rates in Chennai City and the CMA are more or less equal and these figures compare favourably with the overall literacy rate in urban Tamil Nadu. The table below gives the comparative picture.

**Table 2.6: Literacy Levels in CMA**

**in percentage**

	1961	1971	1981	1991	2001
City	59.47	62.01	68.68	72.54	76.81
CMA	54.82	58.64	66.56	70.32	76.09
Urban TN	21.06	30.92	40.43	51.33	73.51

Source: Census of India

## F. Age Structure

2.10. Age structure of a population in a city / metropolis plays a major role in urban planning. It gives an idea about dependent population, working population, jobs to be created, the present and future requirements of educational, health and other facilities and amenities. It depends on birth rate, death rate and also migration. Age structure of population in CMA as per Census 1971 to 2001 is given in the table below:

Age Group	1961	1971	1981	1991	2001
0-4	13.2	12.51	11.03	8.68	7.31
5-9	12.39	11.74	10.35	9.56	7.97
10-14	10.64	10.97	11.37	10.51	8.95
15-19	8.66	9.97	10.61	10.22	9.55
20-24	10.73	11.05	10.68	11.14	10.47
25-29	10.21	9.29	9.61	10.20	10.33
30-34	7.98	7.15	7.46	8.06	8.46
35-39	6.69	6.99	6.66	7.48	8.04
40-44	5.49	5.14	5.36	5.68	6.19
45-49	4.15	4.33	4.70	4.98	5.50
50-54	3.65	3.51	3.70	3.92	4.37
55-59	2.10	2.46	2.73	2.90	3.10
60-64	2.06	2.30	2.40	2.64	2.83
65-69	1.10	1.15	1.37	1.51	1.96
>70	1.20	1.65	1.97	2.33	3.02
not stated	0.00	0.00	0.00	0.18	1.93
Total	100.00	100.21	100.00	100.00	100.00

2.11. From the above, it may be seen that the proportion of primary school going children percentage has reduced from 12.39% in 1961 to 7.97% in 2001, and the proportion of secondary school going age group has also reduced from 10.64 in 1961 to 8.95 in 2001. But the proportion of old age group has increased from 4.36 to 7.81% in the said period.

## G. Population Projection

2.12. Population projections have been carried out for CMA based on the past trends. The following assumptions have been made;

- (i) The declining trend in the growth rate will continue in the future years also.

(ii) Past growth rates, existing density, potential for development, area available for development, accessibility to public transport system ( especially the rail system ), proximity to the employment generating centres etc. could be the basis for working out future projections and assignments.

2.13 It is estimated that CMA would house a population of 126 lakhs by 2026, of which Chennai City alone would account for 58 lakhs. The population projection of CMA is presented in Table below.

<b>Table 2.8: Projected Population for CMA and Chennai City (In Lakhs)</b>								
Sl. No.	Description	Actual	Projection					Gross density Persons / hectare
			2001	2006	2011	2016	2021	2026
1	Chennai City	43.44	46.28	49.50	52.39	55.40	58.56	333
2	Municipalities	15.81	18.52	21.75	25.60	30.20	35.69	149
3	Town Panchayats	3.86	4.73	5.89	7.41	9.45	12.22	78
4	Village Panchayats	7.31	8.70	10.59	12.96	15.99	19.88	32
5	CMA [total]	70.41	78.96	88.71	99.66	111.97	125.82	105

## **H. Strategies**

2.14. In order to realize the vision of the Master Plan in making Chennai more livable and economically vibrant the following strategies are proposed in respect of this sector:

- i) to increase overall density of the Chennai Metropolitan Area from the present 59 persons per hectare to 105 persons per hect.; while doing so the density of Chennai will increase from 247 persons per hect. in 2001 to 333 persons per hect. in 2026, while in the rest of CMA the average density will go up from the present 27 persons per hect. to 67 persons per hectare.
- ii) to encourage high rise development along wider roads and larger plots; to allow multi-storeyed buildings in the rest of CMA also in order to have planned development with large open spaces on ground.
- iii) to allow higher FSI along the MRTS influence areas for residential developments with smaller dwelling sizes.
- iv) to consider extension of the Transfer of Development Rights concept for lands taken over for development to solve problems of land acquisition for housing and infrastructure.
- v) to earmark adequate areas in the plan for employment generating activities.

- vi) to provide better infrastructure facilities like roads, water supply, sewerage, etc. and provide better connectivity through rail and road transport network to the areas identified for development.
- vii) to encourage development of Thiruvallur and Gummidipoondi as satellite towns as envisaged in the FMP by provision of adequate infrastructure like housing and other developments and providing better housing facilities at affordable cost; to develop new towns/ neighbourhoods near Tiruporur in the southern corridor along Rajiv Gandhi Salai and near Sriperumbudur, in the western corridor along GWT Road.
- viii) to take up housing development near Mahindra Park SEZ either by provision of plots or by regulating layout development by private entrepreneurs.
- ix) to encourage green building concept
- x) to provide special facilities to take care of the needs of the elderly persons whose population is likely to go up, e.g. more old age homes, low-floor buses, special seats in buses, special seats in toilets and ramps in public buildings.
- xi) to provide for preservation and conservation of ecologically sensitive areas in CMA and to create more parks and playgrounds for recreation purposes.
- xii) to encourage social housing provision by private developers of large group developments / multi-storeyed developments through Development Regulations.
- xiii) to encourage LIG housing by allowing additional FSI of 0.25 to private developers for such developments.

## **I The Plan**

2.15 Action plans to achieve the strategies mentioned above have been indicated in the sectoral chapters especially economy, transportation, shelter, infrastructure, and environment in Volume I. Development Regulations detailed in Volume II provides for some of the strategies like Transfer of Development Rights, additional FSI for specific purposes and encouragement of green building concept.