

Chapter 2 **Profile of the City** **Ahmedabad**

General

Demographic Characteristics

Urban Economy

Population Forecast

Future Landuse

2.1 General

The city of Ahmedabad was founded in 1411 AD as a walled city on the eastern bank of the river Sabarmati, now the seventh largest metropolis in India and the largest in the state. The urban agglomeration (UA) population has increased from 3.31 Million in 1991 to 4.5 million in 2001.

Historically Ahmedabad has been one of the most important centers of trade and commerce in western India. The city was once famous as the 'Manchester of India' on account of its textile industry. It had as many as 66 mills employing a workforce of over one hundred thousand persons. It lies in the cotton belt of Gujarat, 552 km north of Mumbai and 96 km from the Gulf of Cambay. It has three major industrial estates within its municipal limits. It is also a major industrial and financial city contributing about 14% of the total investments in all stock exchanges in India and 60% of the total productivity of the state¹. A private company operates a thermal power plant in the city.

Ahmedabad is the home of several scientific and educational institutions of national, regional and global importance. The city has a great architectural tradition reflected in many exquisite monuments, temples and modern buildings.

¹ Reena Lazar, *Increasing Resources to Local Government in Ahmedabad, India. Local Strategies for Accelerating Sustainability: Case Studies of Local Government Success. ICLEI Study, Canada, May 2002*

2.2 Location and Climate

Ahmedabad City lies between 22° 55' and 23° 08' North Latitude and 72° 30' and 72° 42' East Longitude. The city is devoid of any major physical features except for the river Sabarmati, which is cutting the city into two parts: eastern walled city and western Ahmedabad on either side of its banks.

The Ahmedabad-Mumbai Golden Corridor has long been recognized as an important development axis in western India. The city acts as a terminal, rather than as an intermediate node in this linear influence. It has seven major roadways, one expressway and five rail networks. A new corridor between Ahmedabad and Pune has recently emerged, connecting the city to other metropolitan cities including Vadodara, Surat and Mumbai. All these factors have resulted in the axial growth of the region.

Ahmedabad has a tropical monsoon climate, which is hot and dry, except in the rainy season. Summer days are very hot with mean maximum temperature of 41.3°C while, nights are pleasant with mean minimum temperature of 26.30C. The mean maximum and minimum temperatures in winter are 30°C and 15.4°C respectively. The average annual rainfall of the area is 782mm, although there is a considerable variation from year to year. It occurs generally during the months of June to September. The average relative humidity is 60% with a maximum of 80% to 90% during the rainy season.

2.3 Demographic Trends

The Greater Ahmedabad Urban agglomeration is an amalgam covering an area of about 4200 sq. Km is an amalgam of (Refer Map-2-1). The map reveals:

1. An area of 190 square kilometres is under the jurisdiction of Ahmedabad Municipal Corporation (AMC)², and
2. 150 villages in the periphery of the city are under the jurisdiction of Ahmedabad Urban Development Authority (AUDA)³,
3. 9 Municipalities in the periphery of the city are under the jurisdiction of Ahmedabad Urban Development Authority (AUDA),
4. Gandhinagar and the surrounding villages,

² The city government Ahmedabad Municipal Corporation (AMC) was, established in July 1950..

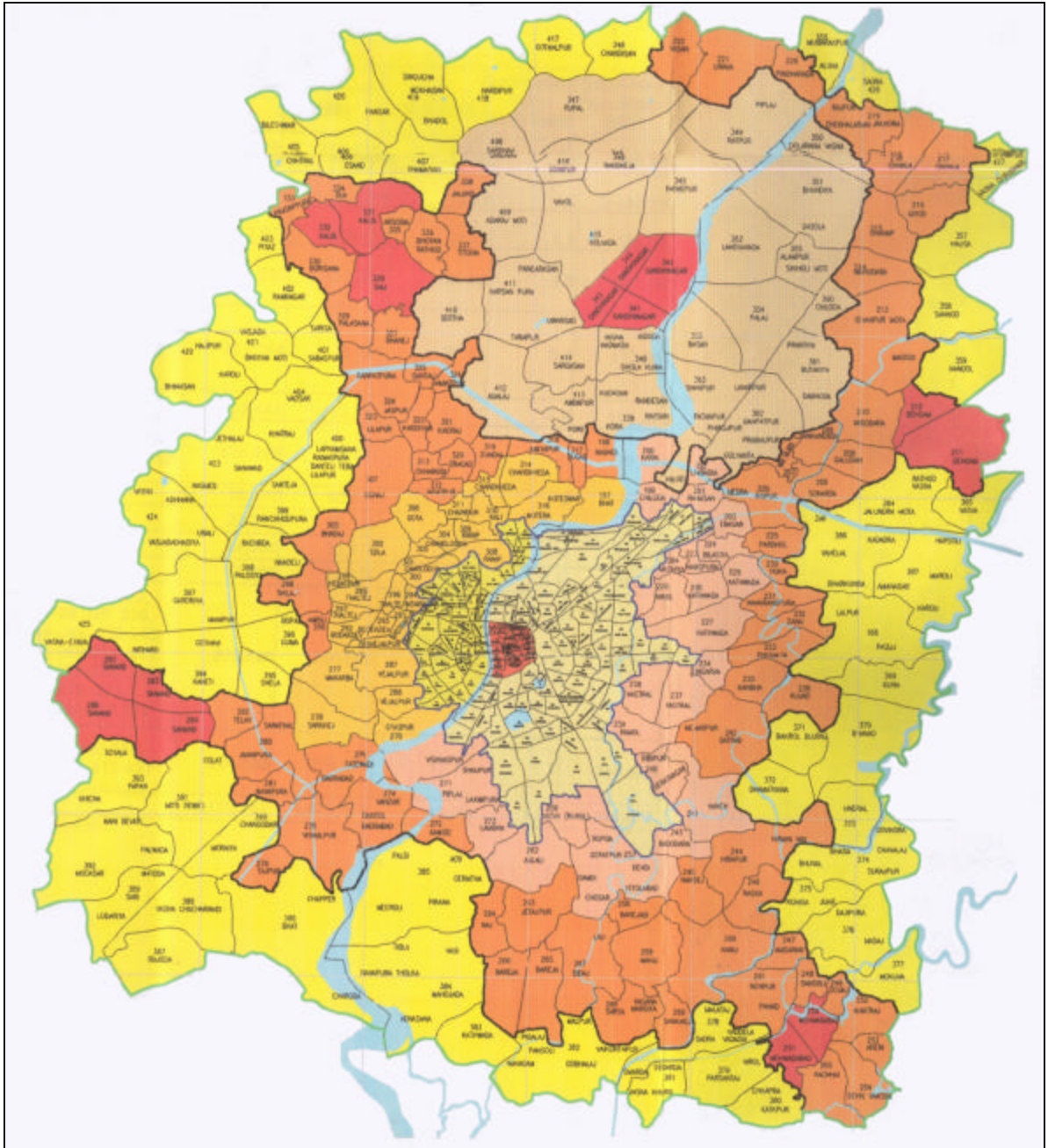
³ The Ahmedabad Urban Development Authority (AUDA) was constituted under the Gujarat Town Planning and Urban Development Act, 1976 in 1978 to regulate and monitor the development in the periphery of the corporation limits and the adjoining 300 villages and 9 municipalities. The major function of the authority is to undertake the preparation of the development plan, town planning schemes, regulate the development and collect the development charges in the area of its jurisdiction.

5. Chatral, Bopal and other surrounding villages adjoining AUDA limits

The area within the Ahmedabad Municipal Corporation limits consists of:

1. the traditional city center within the fort walls with relatively high-density development, large concentration of commercial activities and narrow streets,
2. the eastern sector accommodating large and small industries and low income residential areas, and
3. a well planned western sector with wide roads accommodating major institutions and high-income residential areas

Map 2-1: Greater Ahmedabad



The population in the AMC limits increased to 35.15 lakh in 2001 from 28.77 lakh in 1991. The population in AUDA area in 1991 was 38.75 lakh. The Ahmedabad Urban Agglomeration (AUA) housed 23.25 % of the State's urban population in 1991, which has gone up to about 25% in 2001. Compared to other metropolises in India Ahmedabad has a lesser degree of primacy and urban population is spread evenly across other metropolitan and class I cities in the State.

The AMC area is spread over 190.84 sq km, the AUA area is about 350 sq km and AUDA area is 1330.08 sq km. Spatial distribution of this population within the city over

the decades shows that up to 1981 most of the new population added to the city was concentrated within the old AMC limits itself, especially in the eastern part. Expansion of the peripheral areas began in the 1980s and has continued. Earlier only the eastern parts and particularly the eastern periphery registered faster growth rate, but since the 1980s even the western periphery has grown rapidly.

2.3.1 Spatial Patterns of Population Growth

Table 2-1: Population Growth – Greater Ahmedabad

Spatial Unit	Population		
	1981	1991	2001
1. Ahmedabad Municipal Corporation (AMC)	2159127	2876710 (2.9)	3520085 (2.0)
1.a Walled City	476138	398410 -1.8	372633 -0.7
1.b. East AMC	1122073	1902868 5.4	2521013 2.9
1.c West AMC	463922	575433 2.2	675362 1.6
2. A.U.D.A.	2721925	3756246 3.3	4709180 2.3
2.1.a East AUDA	101144	128999 2.5	202494 4.6
2.1.b West AUDA	204923	457271 8.4	701424 4.4
2.c AUDA (Rural)	209826	246560 1.6	274391 1.1
3. Kalol	78407	92550 1.7	112013 1.9
4. Mehemdabad	22309	26103 1.6	30768 1.7
5. Dehgam	24868	31378 2.4	38082 2.0
6. Sanand	22465	25674 1.3	32417 2.4
7. Other areas outside AUDA	264555	309871 1.6	334531 0.8
8. Gandhinagar	199353	280234 3.5	373663 2.9
8.a. Gandhinagar (GNA)	62443	123359 7.0	195926 4.7
8.b. Rest of Gandhinagar	136910	156875 1.4	177737 1.3
GREATER AHMEDABAD	3185833	4346351 3.2	5417374 2.2

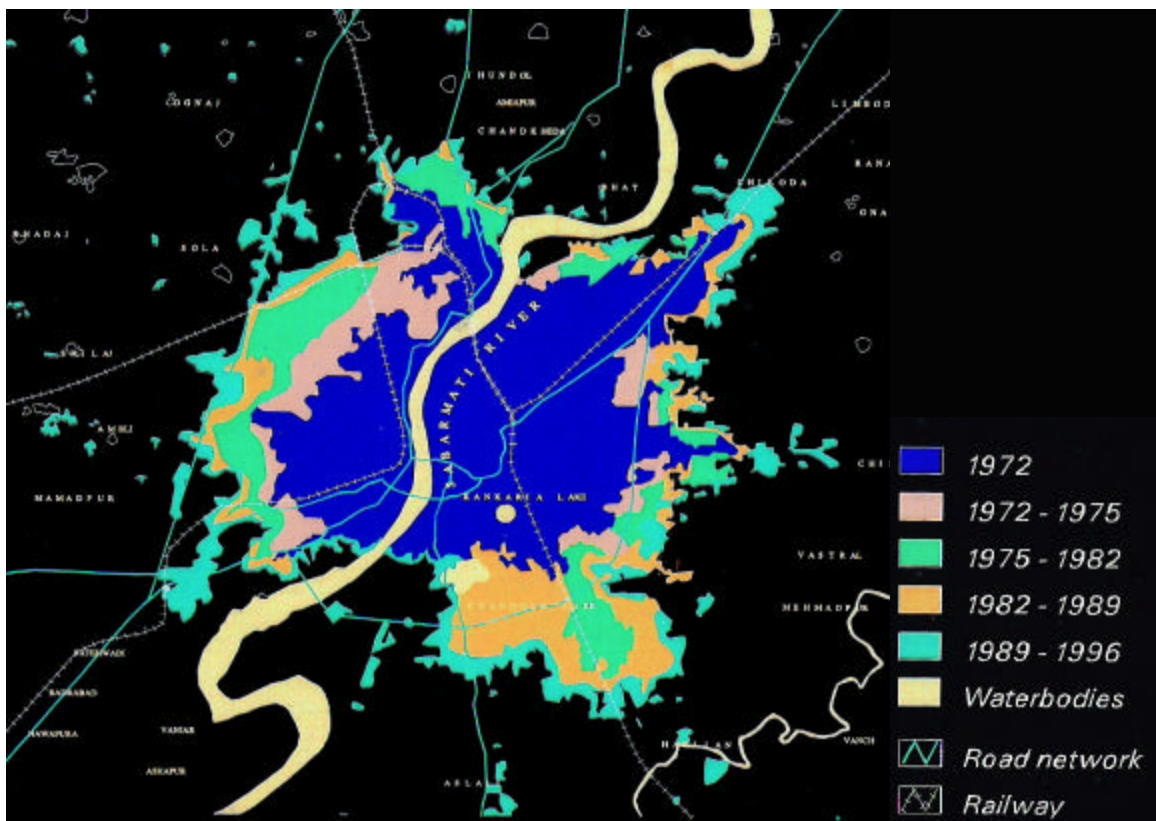
Source: CEPT/GIDB 2005 Ahmedabad BRTS Report no. 1

The greater Ahmedabad area has grown at a moderate rate. Growth rates have declined from 3.2 and 2.2 percent (compounded per annum) during the past two decades (Refer Table 2-1). However, the rates vary across different spatial units. The population within the AMC limits appears to approach a stabilization level. The areas adjoining AMC,

falling within AUDA limits have shown rapid growth. Gandhinagar is also experiencing relatively high rate of growth.

As stated above the population growth in the peripheral areas is more rapid than the areas within the city limits. This is partly due to the saturation of population within the city area and the consequent large-scale housing development in the peripheral areas. The contrasting spatial patterns observed in the eastern and western areas of AMC have extended into the peripheral areas in the same manner. The western part is experiencing more rapid growth than the eastern part. Rapid growth in the form of ribbon development along the Sarkhej - Gandhinagar highway is being witnessed during the 1990's (Refer Map 2-2). These trends are likely to intensify further in the coming decades. It is also a note worthy feature that the spatial expansion of Ahmedabad is largely contiguous and relatively compact.

Map 2-2: Ahmedabad Growth Pattern



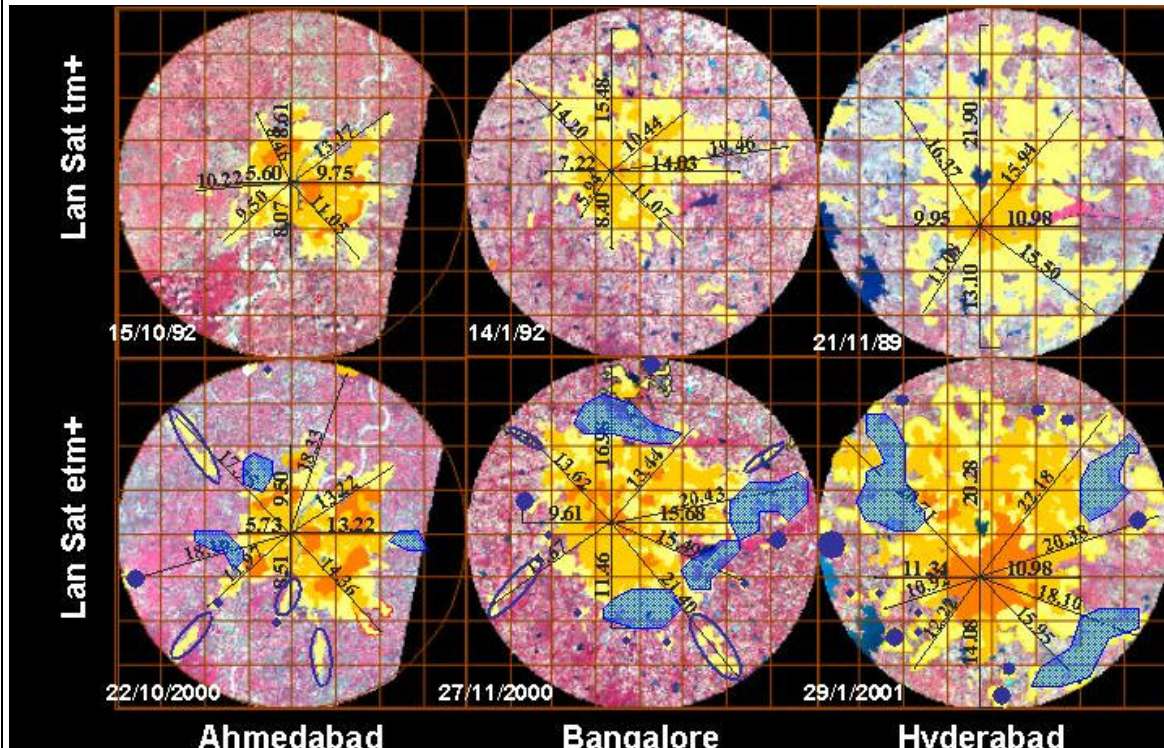
2.3.2 Population Density

The density pattern presented below indicates the spatial expansion is limited to contiguous areas around AMC. The walled city is one of the most densely populated areas in the study area, and it has reached levels of saturation. The new outgrowths

have been in the western parts of the city in the AUDA jurisdiction with people preferring to stay in the peripheral areas where they could avail of better infrastructure facilities. The zones along the 132' Ring Road and Naroda - Narol Highway have seen a higher level of physical development in the last few years. It also appears that most of the eastern part and a few parts in the southwest and northwest have higher densities.

Box-1: Ahmedabad- A Compact City

In terms of spatial expansion, as may be seen from below, unlike Bangalore and Hyderabad, the city during the past ten-year period has expanded in a contiguous manner and remained compact

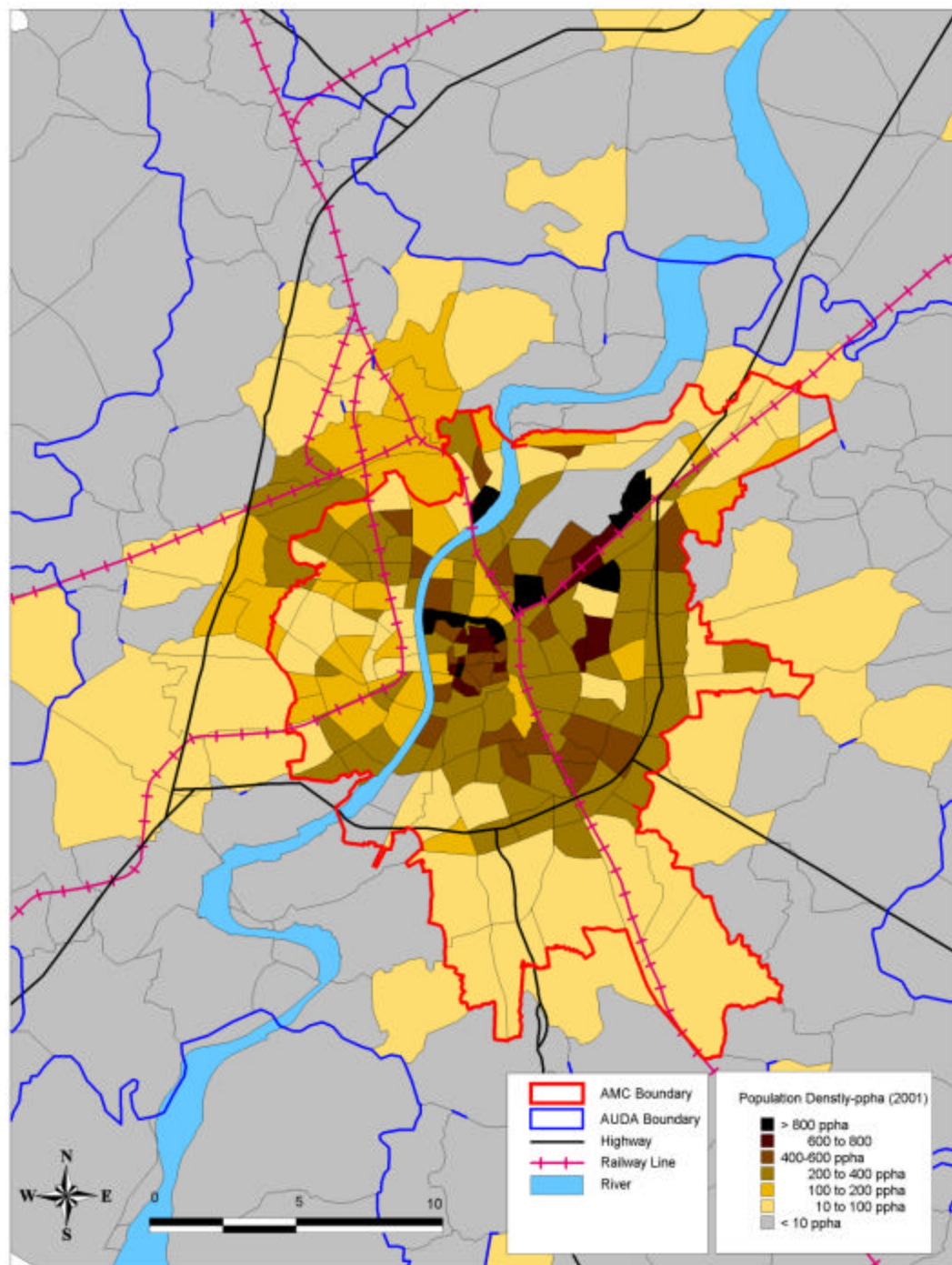


A comparative analysis of three cities in terms of spatial expansion over a decade has been carried out based on Lan Sat Image. From the above it is evident that Hyderabad is the most spread out city followed by Bangalore. The blue patches indicate low-density sprawl type of development.

The study referred below analysed planning mechanisms and concluded that the Master Plan/Development Planning and Town Planning Scheme mechanisms have been effective in Ahmedabad in keeping the city compact. Further, it concludes that the effect of urban sprawl is also evident in terms acute traffic and transport problems in Bangalore and to some extent in Hyderabad.

Source: Desai Sowmya (2005), *Urban Spatial Structures & Land management Mechanisms*, Unpublished M. Tech. Planning Dissertation, CEPT University, Ahmedabad.

Map 2-3: Population Density



Source: CEPT/GIDB 2005 Ahmedabad BRTS Report no.1

Table 2-2: Population Density

Spatial Unit	Persons/Hectare		
	1981	1991	2001
1. Ahmedabad Municipal Corporation (AMC) (Refer Annexure 2-1 & 2-2)	113	151	184
1.a Walled City	716	599	560
1.b. East AMC	79	134	178
1.c West AMC	109	135	159
2. A.U.D.A.	11	61	77
2.a East AUDA	6	7	11
2.b West AUDA	13	28	43
2.c AUDA (Rural)	12	14	16
3. Kalol	27	31	38
4. Mehemdabad	19	22	26
5. Dehgam	11	13	16
6. Sanand	6	7	9
7. Other areas outside AUDA	8	9	10
8. Gandhinagar	5	7	9
8.a. Gandhinagar (GNA)	24	47	75
8.b. Rest of Gandhinagar	4	4	5
GREATER AHMEDABAD	12	16	20

Source: CEPT/GIDB 2005 Ahmedabad BRTS Report no.1

2.4 Urban Economy

The city of Ahmedabad has had great importance in the economy of Gujarat owing to the large concentration of economic activities their high growth rates and productivity. Ahmedabad accounts for 7% of the state's total population and around 20% of its urban population. In 1995, with 7 percent of the total population, Ahmedabad contributed to 17 percent of the state income ⁽⁴⁾. Ahmedabad city accounts for 21.5% of factories in the state employing 18% of workers (2000). In 1981, before the textile crisis, Ahmedabad city used to account for 19.3% of factories and 27.7% of workers in the state. Ahmedabad accounts for almost 19 percent of main urban workers in the state and 60 percent in Ahmedabad District.

A sectoral shift has been observed in Gujarat, after liberalization. There has been a rapid growth of chemical and petrochemical industries in South Gujarat districts. The investment figures show a significant decline in the share of industries in and around

Ahmedabad. On the other hand, tertiary sector which includes business and commerce, transportation and communication, construction activities and other services appears to be growing.

The workers participation rate (WPR) or the share of working population in Ahmedabad is 32 percent (2001) as against 33 percent of the State Urban WPR. The following table shows the nine-point classification of the workers in AMC. Though it is not very apt to compare the figures of 1971 and 1991 because of the change in the Corporation area, an analysis of the shares could give an insight into the changing occupational pattern. (Refer Table 2-3)

Table 2-3 : Occupational Pattern of Ahmedabad

Sectors	Categories		1971		1991		2001	
			No.s	%	No.s	%	No.s	%
Primary Sector	I	Cultivation	839	0.19	2659	0.32	1168	0.10
	II	Agr icultural Labourers	613	0.14	1889	0.23	1133	0.10
	III	Live stock, Forestry, Fishing etc and allied activities	2749	0.61	5444	0.65	A	
	IV	Mining and quarrying	2557	0.57	1932	0.23		
	Total		6758	1.50	11924	1.43		
Secondary Sector	V-A	Manufacturing and processing in Household Industries	6857	1.52	6479	0.78	34624	3.09
	V-B	Manufacturing and processing in other than Household Industries	204255	45.39	308183	37.07		
	VI	Construction	14203	3.16	38197	4.59		
	Total		225315	50.08	352859	42.44		
Tertiary Sector	VII	Trade and Commerce	88239	19.61	212051	25.50	B	A+B =1085070 (96.71%)
	VIII	Transport, Storage and Communication	32779	7.28	75446	9.07		
	IX	Other Services (Other than those mentioned above e.g. Politics, Social Work, Govt.Service, Teaching, Entertainment etc.	96864	21.53	179179	21.55		
	Total		217882	48.42	466676	56.13		
Grand Total			449955	100.00	831459	100.00	831459	100.00

Source: Respective Census Documents

The share of secondary sector has fallen from 50 percent to 42 percent. This is inspite of the fact that the industrial areas of Odhav, Vatwa and Naroda were included in the AMC area in 1987. The economy of the city is gradually shifting from secondary to tertiary sector absorbing 56 percent of the total main workers of the city (1991 census).

2.4.1 Industrial Development

Table 2-4 gives the details of the number of working factories and workers employed daily in Ahmedabad city from 1965 to 2003.

Table 2-4: Working Factories and Workers Employed Daily in Ahmedabad City

Year	No of working Factories	Average No of workers employed daily in working factories (including estimated avg. no. of workers)	Workers per Factory
1965	939	162104	173
1971	1129	152986	136
1975	1434	170522	119
1979	1981	184247	93
1983	2320	184246	79
1986	2169	139715	64
1988	3640	205498	56
1990	4114	220083	53
1993	3553	200652	56
1996	4481	193740	43
1999	4271	157568	37
2000	4243	152933	37
2001	4415	157486	36
2002	4689	168700	-36
2003	4859	175728	-36

Source: AMC Statistical Outline 2004

The number of workers employed in registered factories has remained more or less stagnant in the city for over four decades. The numbers of jobs vary between 1.4 lakh to 2.0 lakh jobs and the most recent level is about 1.75 lakh. Workers per factory have also declined from 84 workers in 1981 to 61 in 1987 and to 36 in 2003. These two are in conjunction with the trends at the state level.

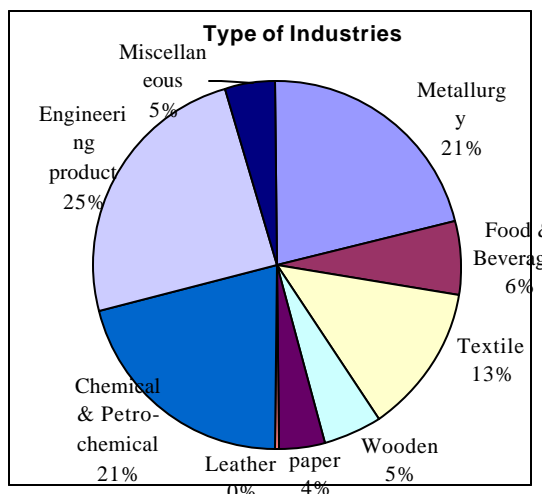
There are around 4859 factories in Ahmedabad City, of which Chemical and Petrochemical industries have the largest share (29%), followed by metallurgical and engineering industries. Significant decline is observed in textile industry, which has a current share of 12 percent (Refer Table 2-5). The employment however is the highest in textile industries followed by chemical and petrochemical. Though the number of chemical industries is more than twice the textile industries, the employment is much lower.

Table 2-5: Working Factories in Ahmedabad City (2003)

Industry Type	No. of working factories	Employment
Metallurgy	1043	29863
Food & Beverages	308	17262
Textile	613	44623
Wooden	243	2611
paper	214	4751
Leather	12	218
Chemical & Petro-chemical	1011	25104
Engineering product	1194	38549
Miscellaneous	221	12747
Total	4859	214277

Source: AMC Statistical Outline

Figure 2-1: Composition of Industries 2003



There are four GIDC estates within the Municipal Limits: Vatva, Odhav, Naroda and Behrampura (Refer Table 2-6). The following table shows an approximate distribution of industries in these four estates:

Table 2-6: Details of GIDC Estates within AMC area

GIDC Estates	Area (Hect)	Developed Area (Hect)	Functioning Units	Investment (in lakhs)	Employment
Naroda	346.25	344.92	654	118738.05	11780
Odhav	127.00	112.58	708	4932.53	10944
Vatwa	527.00	521.40	1092	18254.60	18571
Behrampura	6.91	6.34	41	181.68	451
Total	1007.16	985.24	2495	142106.9	41746

Source: GIDC, Ahmedabad, 2002

In all the four estates, almost the entire area has been developed. The number of functioning units is highest in Vatwa and so is the employment. However, the investment in Naroda industrial estate is the highest.

2.5 Land Use

Spatial arrangements of land uses determine the population distribution and infrastructure demand patterns in the city. This section briefly describes the land use patterns in the city. The Ahmedabad Urban Development Authority is responsible for land use planning within its jurisdictional limits. As stated above, the area under AUDA may be seen as various subunits depending on the administrative jurisdictional limits and extent of development. Of this, the area delineated as Ahmedabad Urban Complex consisting of AMC, outgrowth adjoining AMC and area likely to develop in the ten years has been designated as Ahmedabad Urban Complex. It is this area, which is the focus in this study.

BOX 2: Land Use Planning Mechanisms

An integrated land use planning and regulation of building activities, taking into account the mutual interaction of land use and urban services, is essential for fostering functional efficiency and orderly growth of urban areas. In order to have a planned and guided growth, planning mechanisms under the Gujarat Town Planning and Urban Development Act (1976) have been established. The mechanism in operation in Gujarat include:

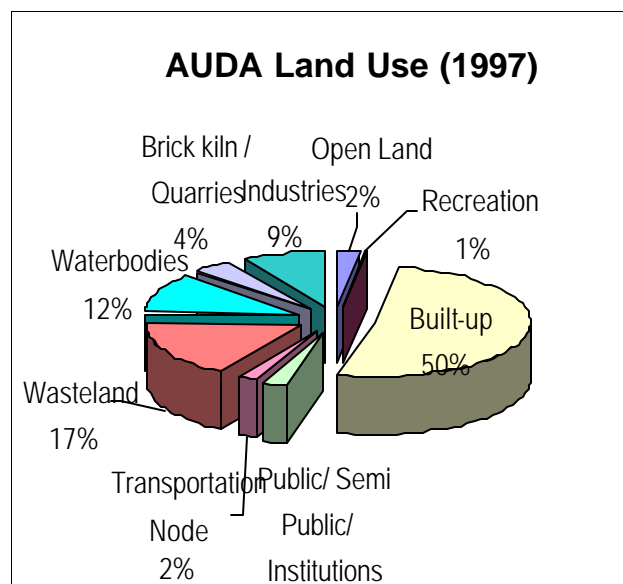
Development Plan: Prepared for the entire area of the Urban Development Area which consists of two parts

- a) A land use plan earmarking various areas as permissible use zones, and
- b) A Development Control Rules for implementation of development plans

Town Planning Scheme: Prepared for an area of about 100 hectares with an objective to convert original agricultural plots into urban plots with proper shape, size and access. In the process of preparation of these areas, aspects of public amenities, housing for weaker section and for marketing by the ULB to recover facilities infrastructure building costs are integrated. The total of this area ranges between 35 to 50%.

2.5.1 Land-use in AUDA area

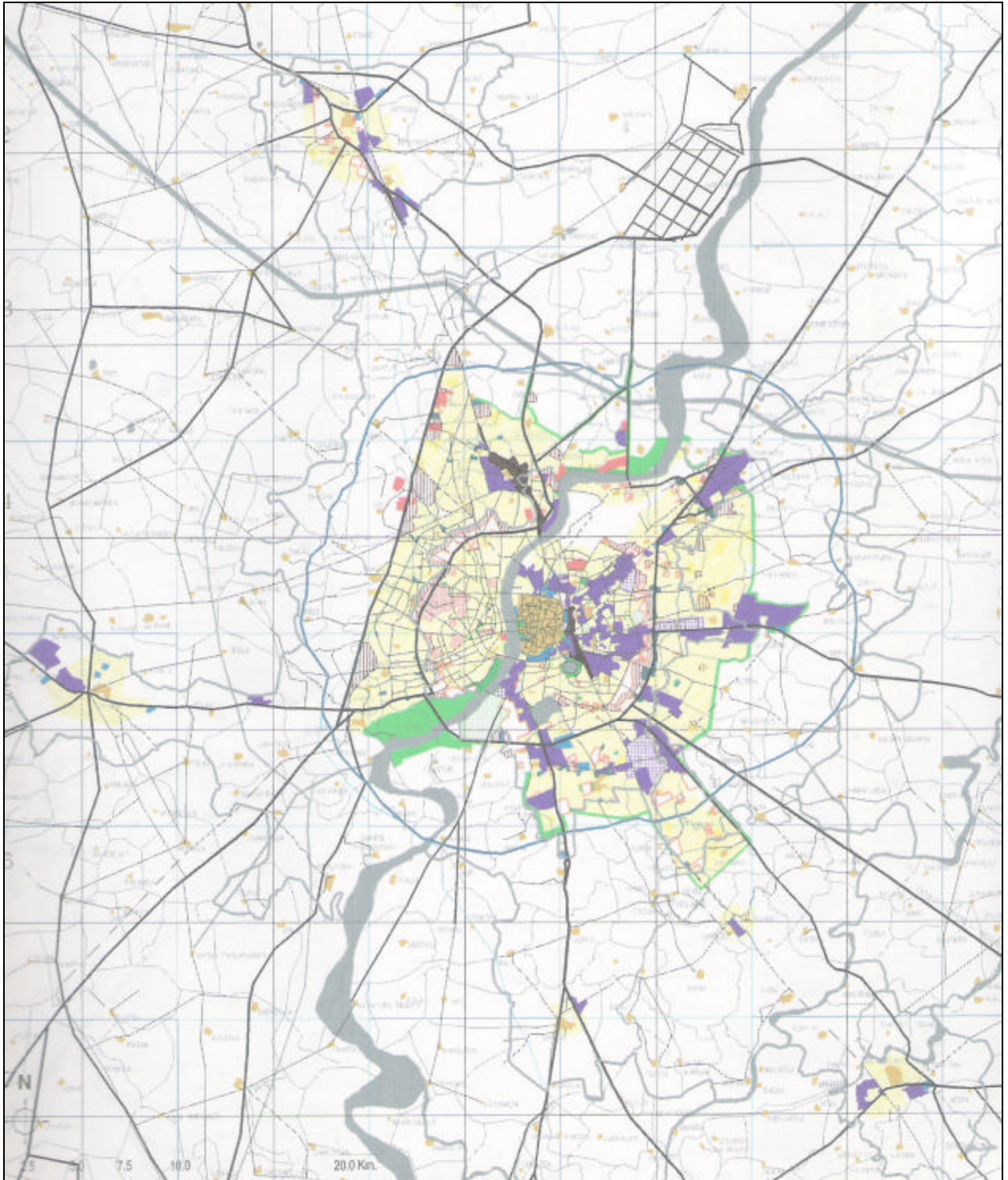
Of the total AUDA area of 1294.65 sq. km, nearly 50 percent is built up. Water bodies and wastelands cover 12 percent and 17 percent of area respectively. Industries cover 9 percent of the area (Refer Figure 2-3 and Map 2-4). As per the State Government Policy, no major industrial development within 24 kms of AMC limit is permitted in AUDA area. Considering existing



development conditions a certain area for industrial use is designated for light industry as well as for general industry, along with existing industries at Vatwa, Naroda and Odhav (all lying within AMC), which forms nearly 10.38 percent.

Figure 2.2: Land Use in AUDA Area (1997)

Map 2-4: AUDA Landuse Map



Land Use in City area

As per existing land use (1997), more than one third (36%) of the total area is under residential use, followed by 15 percent of the area under the industries (Refer Figure 2-

5). Large tracts of land (23.44%) are lying vacant, mostly in the newly acquired area of the AMC. Only 9.5 percent of the total area is under transportation network as against the norm of 15-18 per cent. as specified by UDPFI norms.

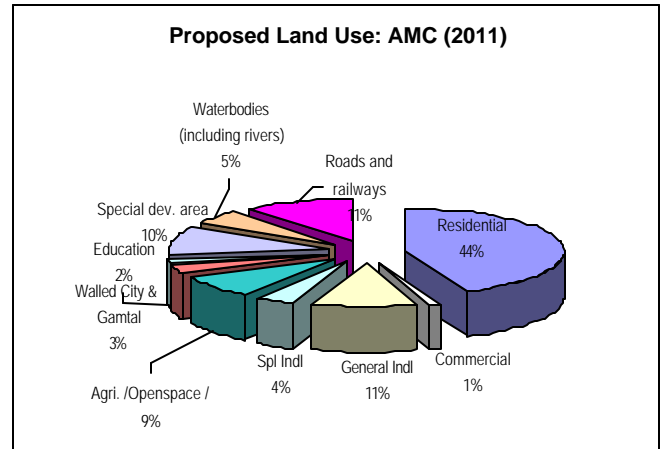
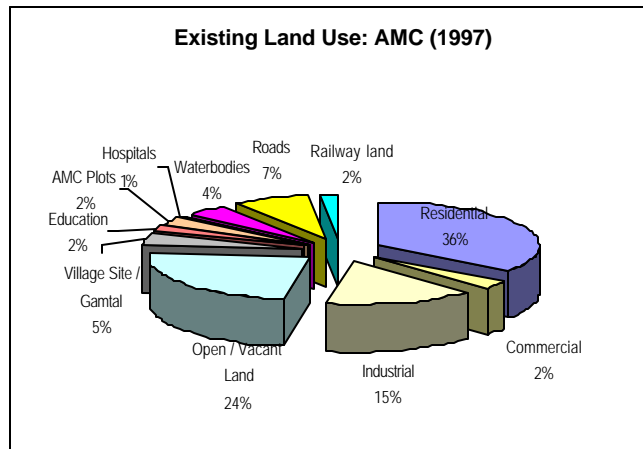


Table 2-7: Existing and Proposed Land use of AMC area

Figure 2.3: Existing Land use of AMC Area (1997)

Figure 2.4 Proposed Land Use of AMC Area (2011)

Existing land use for AMC area (1997)				Proposed land use for AMC (2011)		
Sr No	Use/ Designation	Total Area (Ha.)	% Of Total Area	Use/ Designation	Total Area (Ha.)	% Of Total Area
1	Residential	6664.44	34.92	Residential	8340.22	43.70
2	Commercial	472.64	2.47	Walled City and Village Sites(Gamtal)	645.56	3.38
3	Industrial	2932.78	15.37	General Industrial	2006.51	10.51
4	Open / Vacant Land	4473.36	23.44	Special Industrial	786.72	4.12
5	Village Site / Gamtal	895.59	4.69	Commercial	263.06	1.38
6	Education	344.19	1.80	Agricultural / Recreational / Open Space / Gardens	1643.60	8.61
7	AMC Plots	467.18	2.45	Education	387.30	2.03
8	Hospitals	98.36	0.52	Area Under Reservations now designated as special development area	1955.37	10.25
9	Burial Ground / Grave Yard	86.54	0.45	Roads and railways	2117.67	11.10
10	Water bodies	850.55	4.46	Water bodies (including rivers)	937.97	4.92
11	Roads	1426.65	7.47			
12	Railway land	372.00	1.96			
Total		19084.00	100.00	Total Area	19084.00	100.00

Source: Revised Draft Development Plan of AUDA – 2011AD Part I , Vol 2

Table 2-8: Existing and Proposed Land use of AUC area (Excluding AMC)

Existing Landuse of AUC Area (Excluding AMC Area) (1997)				Proposed Landuse of AUC Area (Excluding AMC Limit): (2011 A.D)			
Sr. No.	Land Use	Total	% Of Developed Area	Sr. No.	Particulars	Area in Hect.	%age of Developed Land
1	Residential include Gamtal	3559	38.99	1	Residential, Roads, Public and Semi-Public		
2	Public & semi public	572	6.27		Type 1 (old residential area)	9938	34.523
3	Commercial	276	3.02		Type 2 (new residential area)	4624.92	16.066
4	Industrial	647	7.09	2	Commercial	1071.92	3.724
5	Railway/ Roads/ Airport	406	4.45	3	Industrial	987.58	3.431
6	Water way and tank	3625	39.72	4	Public Activity Area	552	1.918
7	Garden open space and P.G	41	0.46	5	Public and Semi-Public	243	0.844
TOTAL		9126	100	6	Recreational	6300	21.885
				7	Treatment Plants (AUDA, AMC)	745.16	2.589
				8	High flood hazards	524	1.820
				9	Agriculture	3800.42	13.202
					Total area	28787	100

Source: Revised Draft Development Plan of AUDA – 2011AD Part I , Vol 2

2.6 Population Forecast and Spatial Expansion

With declining birth and death rate trends continuing, the city is expected grow at a moderate rate and stabilize by the year 2035 with a population of about 10 to 11 million (Refer Table 2-8). The physical expanse of the city is expected to also incorporate large areas around Ahmedabad, which were presented as part of greater Ahmedabad area.

Table 2-9: Population Forecast

Sl. No.	Year	Population (Million)	Approx. Area (Ha)
1	1981	2.5	19000
2	1991	3.4	23000
3	2001	4.6	30000
4	2011	6.9	50000
5	2035	10.9	8-90000

Source: GIDB/LB (2000) 'Socio-Economic & Land use Studies

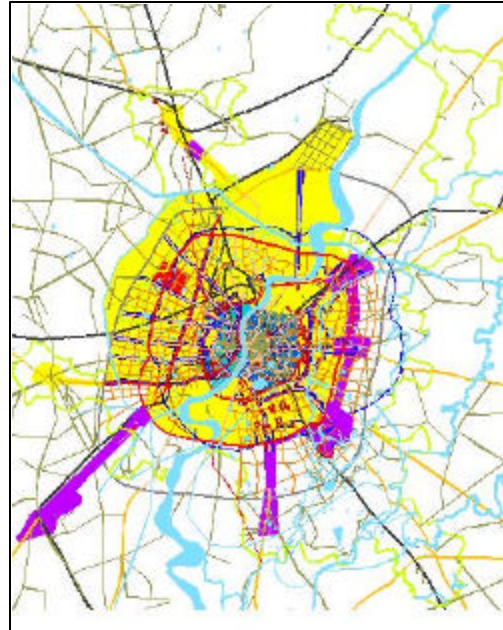
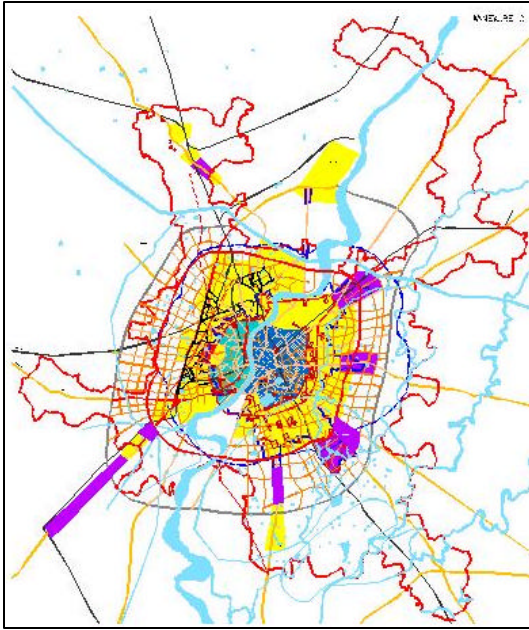
Based on the development plan proposals, taking into consideration the present trends and absorption capacity, following pattern of population distribution over space has been deciphered at.

Table 2-10: Population Distribution – 2011 & 2012

Spatial Unit	Population			
	2001	2011	2012	G.R
1. Ahmedabad Municipal Corporation	3520085	4475035	4583748	2.42
1.a Walled City	372633	332294	328509	-1.13
1.b. East AMC	2521013	2892832	2932905	1.38
1.c West AMC	675362	1243980	1322334	6.29
2. A.U.D.A. (Excluding AMC)	1189095	2247507	2397899	6.57
2.1 Periphery- (U)	895537	1799378	1929418	7.22
2.1a East AUDA-U	150161	304628	326957	7.33
2.1 b West AUDA-U	745376	1494749	1602461	7.20
2.2. Kalol Town	112013	154392	159427	3.26
2.3. Mehemdabad	30768	43387	44904	3.49
2.4. Dehgam	38082	50422	51857	2.84
2.5. Sanand	32417	38208	38841	1.65
2.6. Periphery - Rural	80278	161720	173452	7.25
3. Gandhinagar	373663	512516	528969	3.21
3.a. Gandhinagar (GNA)	195926	278258	288193	3.57
3.b. Rest of Gandhinagar	177737	234221	240775	2.79
4. Other areas outside AUDA	334531	433924	445360	2.63
GREATER AHMEDABAD	5417374	6905477	7075126	2.45

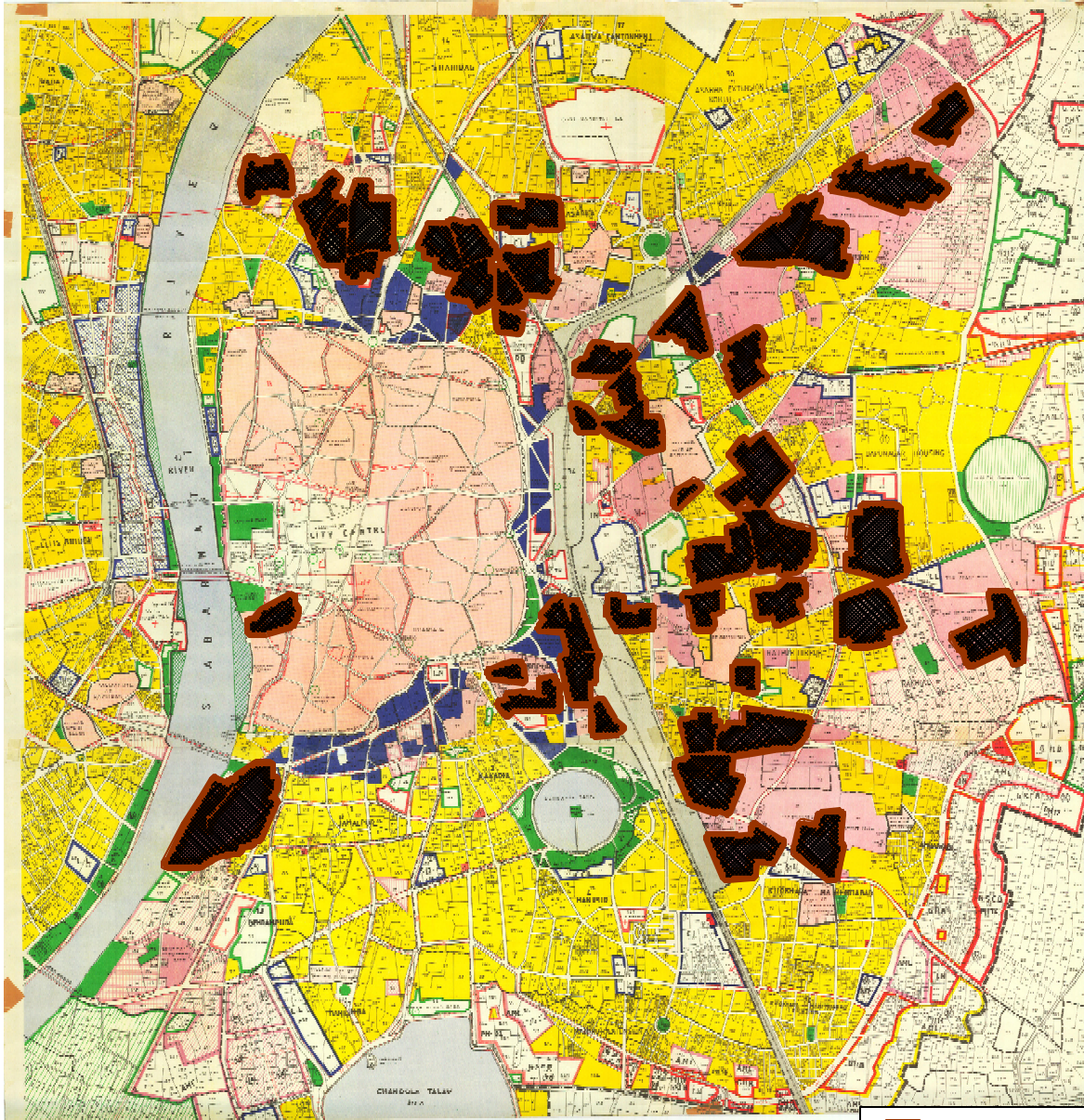
Source: Based on AUDA, GIDB/LB report

Map 2-5: Greater Ahmedabad Development Area: 2011 and 2035



The Proposed Land use Plan of AUDA envisages the development by 2011 as shown in the Map 2-6. The Development Plan 2011 proposes an increase in residential areas from 35 percent to 44 percent. No significant change has been proposed in Industrial area due to the State Government's restrictive policy. Though 23 percent of the area exists as open, the city lacks adequate number of gardens and parks. It is proposed to develop 8.6 percent area as gardens. A huge area of land belonging to closed textile mills in Eastern Ahmedabad, which is lying unused, is being proposed for development. Increase in area under transportation from 9.5 percent to 11.1 percent is envisaged.

Map 2-6: AUDA Proposed Landuse 2011 Plan



Mill land

The total land area occupied by the closed mills is **3.34 sq. kms.** Due to complex use change procedures and because of claims of Banks and workers the land is lying vacant since 1985/86.

Ownership	No. of closed mills
GSTC	18
NTC:	5
Private	50
Total	53

2.7 Issues

The Ahmedabad Urban Agglomeration has a population of 45 lakhs (2001) of which 78 percent is residing within the municipal area. Ahmedabad has been the primate city of Gujarat, the largest in terms of the population size and contribution to state income.

Over the years, rapid urbanization has led to spillover of population outside the city limits. This has resulted in intensification of development high rise structures which have been putting tremendous pressure on the infrastructure facilities. In the following 10 years, when the population within AMC is expected to rise from 35 lakhs to 46 lakhs and in Ahmedabad Urban Complex from 46 to 60 lakhs, it is vital to address such issues and plan accordingly to accommodate future growth

The city continues to be relatively compact. Some industrial activity has spilled over to the periphery. Containing the tendency of sprawl growth observed in the recent past is a necessity. Transit oriented development as a mechanism needs to be explored. Central and eastern zones have lost employment opportunities. Focus on these areas would be an additional contribution.

As may be noted, landuse planning efforts have been fairly successful in Ahmedabad in containing sprawl and haphazard growth. In the light of the fact that city is prone to earthquake, floods and technological hazards measures to integrate disaster mitigation into planning process are essential.

The economy of Ahmedabad is gradually being dominated by the tertiary sector. The downtrend in the textile industry has led to the weakening of the industrial base. The industries like chemical, petrochemical, engineering existing in the GIDC estates are less labour intensive and hence have much lower employment rates. This has led to the redundancy of major section of the labour force.

The surplus labour, which was unable to enter the formal market/sector, was mainly absorbed in the informal sector. Informal sector in the city today provides direct employment to 1 lakh people and indirect employment to 3 lakh people and creates business volume of approximately Rs 4 Crore everyday. Thus, informal sector's contribution in the tertiary sector is high and cannot be ignored.

In the event when the existing chemical/petrochemical industries are threatened by competition from countries like China after the opening up of the economy, the importance of informal sector becomes critical. It is thus imperative to address the spatial and policy issues related to increasing normalization in the tertiary sector. Also, the infrastructure requirements for the tertiary sector economy are much higher than the secondary sector based economy, and would thus have to be attended to. Focused efforts to strengthen city economic base are needed.